

**SME Strategic Regeneration: Building a holistic framework for  
decision-making in managing growth uncertainties and market  
volatilities for SMEs in Malaysia**

Deny Shazly Sopian

Faculty of Business & Management  
University of Wales Trinity Saint David

**2021**

## DECLARATION

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

Signed: \_\_\_\_\_ (candidate)

Date: 18/02/2022

## STATEMENT 1

This thesis is the result of my own investigations, except where otherwise stated. Where correction services have been used the extent and nature of the correction is clearly marked in a footnote(s). Other sources are acknowledged by footnotes giving explicit references. A bibliography is appended.

Signed: \_\_\_\_\_ (candidate)

Date: 18/02/2022

## STATEMENT 2

I hereby give consent for my thesis, if accepted, to be available for deposit in the University's digital repository.

Signed: \_\_\_\_\_ (candidate)

Date: 18/02/2022

## Preface

In managing the continuity and sustainability of business at the advent of future uncertainty and novel crisis, SME organisations are continuously bombarded with an array of ambiguous strategic constraints, whilst consecutively having to continually endure the challenges of unstructured operationalisation of ‘atomistic’ strategy and decision-making approach.

Under such circumstance, SMEs would often try to mitigate the adverse implications of indeterminate risks with immediate remedial actions on cost reduction and would strictly focus on controlling only its tangible financial resources. Limited by access to funds and other types of intangible resources, most SMEs cannot afford the luxury of hiring the expertise of external management consulting firms nor emulate large corporation’s strategy practices in adopting extensive commercial or operational strategies and models.

Nonetheless, the strong business acumen and entrepreneurial qualities of its gifted owner-managers would often as well impose correct decisions in turning-around the business at the onset of crisis. But this does not happen to all firms in the broad sectoral landscape and numerous types of SME populations. Neither in most of the successfully turnaround firms, nor the majority of acutely affected businesses, the processual capability and organisational integrity is efficient and repeatable.

The intent of this research is to bridge the relationship between strategic management and operational excellence in managing tangible & intangible variables to growth and maturity. The study shall focus on SME firms facing with economic turbulence and business uncertainties, and particularly on crisis-disrupted organisations. This research shall delve and explore the fundamental areas of decision-making imperatives driving ‘*quantum leap*’ and transitional business decisions via transformational frontiers and future-preparedness.

## Abstract

This qualitative multiple case study research suggests an empirical approach with vantage points of Strategic Management, Strategic Innovations and Strategic Foresight perspectives to foster holistic decision-making for SME firms' Strategic Regeneration impetuses at the onset of external environmental turbulence and discontinuous change. The study's inductive approach focuses on a sensemaking approach for 'meaningful' discourse between SMEs' owner-managers and its key stakeholders via institutionalising Dynamic Capabilities and 'future-preparedness' to *read*, *recognise* and *react* to strategic shifts concerning firm orientations in dealing with growth uncertainties and market volatilities at critical stages of the firm's lifecycles.

Four basic rationales for holistic decision-making framework were established based on critical review of the extant literature: (i) establishing strategic posture on Volatile, Uncertain, Complex & Ambiguous (VUCA) environments and crisis interventions; (ii) improving the management of strategic decisions and integrated resources; (iii) developing proficiency and focus on future strategic orientations; and (iv) implementing time-bounded pathways for strategy paradigms. In highly uncertain and volatile economic environments, anticipating change impetus and corollaries via a structured and dynamic platform to expound ambidexterity in strategy and strategic decision-making implementations were found to be purposeful and useful for SME firm's strategic reform activities.

Three case study impact clusters were compared with unit of analysis: (a) strategic postures; (b) strategic regeneration horizons; and (c) dynamic capability. This was accomplished via ten Malaysian SME firms sampled from five different industry/sectors for primary data collection. Through a set of 24 semi-structured interview questionnaires and use of interview templates, ten carefully selected key informants were fully interviewed and transcriptions were analysed using eleven thematic codes. The validation of seven research propositions developed for this study generated a coherent response with associated findings with contextual relevance and significance to the research aims and objectives.

The conceptualisation of the 'SME Strategic Regeneration' framework further expounded recommendations on adoption of maturity model and strategic decision management best-practices to 'rapidly' improve strategy outcomes and efficacies, particularly for SMEs with highly turbulent crisis and acutely affected firms. Illustrated results from multiple case studies

complemented the discovery of business recovery initiatives in Malaysian SMEs in several aspects, exhibiting valuable insights for further development and investigation.

Findings from this study serves as the precursor to development of proponents to holistic decision-making and future-preparedness, for rapid and practical adoption by SMEs to tackle strategic issues of business continuity and sustainability throughout their active lifecycles, analogous to its maturity and evolution. Nonetheless, scarcity of research specific to Malaysian SMEs on this topic entails further development of future research into strategic decision management and strategy paradigms specific to SME domains.

*Keywords: SME, strategic regeneration, strategic decision management, strategy paradigms, holistic decision-making, business continuity, future-preparedness.*

# Contents

<b>PREFACE .....</b>	<b>3</b>
<b>ABSTRACT .....</b>	<b>4</b>
<b>LIST OF TABLES.....</b>	<b>10</b>
<b>LIST OF FIGURES.....</b>	<b>11</b>
<b>DEFINITION OF KEY TERMS.....</b>	<b>13</b>
<b>CHAPTER 1: INTRODUCTION.....</b>	<b>14</b>
1.1 BACKGROUND AND MOTIVATION FOR THE STUDY .....	14
<i>1.1.1 General issues concerning SME growth &amp; maturity.....</i>	<i>19</i>
<i>1.1.2 Research Gap &amp; Problem Statement.....</i>	<i>21</i>
1.2 RESEARCH AIMS & OBJECTIVES .....	22
1.3 SCOPE OF THE STUDY .....	25
<i>1.3.1 Significance of the Study.....</i>	<i>26</i>
<i>1.3.2 Delimitations of scope and key assumptions.....</i>	<i>27</i>
1.4 THESIS STRUCTURE.....	28
1.5 SUMMARY OF THE CHAPTER .....	31
<b>CHAPTER 2: LITERATURE REVIEW .....</b>	<b>32</b>
2.1 OVERVIEW .....	32
2.2 SMEs IN MALAYSIA – BACKGROUND AND KEY ENABLERS .....	32
<i>2.2.1 SMEs in general - Size, Sectors, Classifications &amp; Contributions .....</i>	<i>32</i>
<i>2.2.2 MY-SMEs and the prevalence of growth frontiers during crisis .....</i>	<i>36</i>
<i>2.2.3 Business continuity and the firm’s agency to reform .....</i>	<i>41</i>
<i>2.2.4 Firm orientations &amp; mitigating concerns.....</i>	<i>52</i>
2.3 THEORETICAL PERSPECTIVES OF THE STUDY .....	56
<i>2.3.1 Strategic Management (SM) standpoint.....</i>	<i>57</i>
<i>2.3.2 Strategic Foresight (SF) standpoint:.....</i>	<i>81</i>
<i>2.3.3 Strategic Innovation (SI) standpoint: .....</i>	<i>99</i>
<i>2.3.4 Perspectives on Lifecycle &amp; Growth cycles .....</i>	<i>104</i>
2.4 UNDERPINNING THEORIES .....	115

2.4.1 Contingency Theory .....	115
2.4.2 Resource-based View .....	116
2.4.3 Dynamic Capability .....	118
2.5 IMPLICATIONS OF PAST RESEARCH ON ‘STRATEGIC RENEWAL’ TO THE STUDY OF “SME STRATEGIC REGENERATION” .....	120
2.6 SME STRATEGIC REGENERATION CONCEPTUAL FRAMEWORK.....	124
2.7 RESEARCH PROPOSITIONS (H) .....	127
2.8 SUMMARY OF THE CHAPTER .....	129
<b>CHAPTER 3: RESEARCH DESIGN &amp; METHODOLOGY .....</b>	<b>131</b>
3.1 PREAMBLE TO USING QUALITATIVE CASE STUDIES.....	131
3.1.1 Exploring practitioner-based qualitative research perspectives.....	132
3.1.2 Setting-up the research with a thematic investigation.....	133
3.1.3 Justifications for using Case Studies.....	134
3.2 OVERVIEW OF THE RESEARCH WORKFLOW & APPROACH.....	136
3.2.1 Research approach.....	137
3.2.2 Key Constructs & Variables.....	138
3.3 RESEARCH DESIGN & STRATEGY .....	141
3.3.1 Research Paradigm.....	142
3.3.2 Sample and Case Selection .....	147
3.3.3 Data Collection Instruments .....	150
3.3.4 Key Informants .....	154
3.3.5 Company Profiles.....	155
3.4 RESEARCH METHOD .....	156
3.4.1 Multiple Case Study (MCS) & Study Sequence.....	156
3.4.2 Data Reduction and Coding.....	158
3.4.3 Drawing Conclusions.....	162
3.5 QUESTIONNAIRE DESIGN (QD) & EMPLOYABILITY .....	162
3.5.1 Questionnaire construction considerations.....	163
3.5.2 First version testing and pilot run.....	164
3.6 VERIFYING THE QUALITY OF RESEARCH.....	165

3.6.1 <i>Validity and reliability</i> .....	165
3.7 SUMMARY OF THE CHAPTER .....	165
<b>CHAPTER 4: ANALYSIS &amp; INTERPRETATION OF FINDINGS .....</b>	<b>167</b>
4.1 PREAMBLE ON THE RESEARCH’S FINDINGS AND INTERPRETATIONS .....	167
4.2 CODING SEQUENCE & RESULTS.....	168
4.2.1 <i>Coding results on Interview Questions.</i> .....	169
4.2.2 <i>Assigning Firms to aggregated Case Study Clusters</i> .....	173
4.3 CASE STUDY ANALYSIS & RESULTS.....	174
4.3.1 <i>Unit of Analysis (UAs)</i> .....	174
4.3.2 <i>Within-case Analysis &amp; Interpretations</i> .....	175
4.3.3 <i>Cross-case Analysis &amp; Interpretations</i> .....	186
4.3.4 <i>Contextual significance of findings with SR Conceptual Framework</i> .....	193
4.4 SUMMARY OF THE CHAPTER .....	200
<b>CHAPTER 5: DISCUSSIONS, CONCLUSION &amp; RECOMMENDATIONS .....</b>	<b>201</b>
5.1 PREAMBLE ON RESEARCH DISCUSSIONS .....	201
5.2 CRITICAL REVIEW OF THE RESEARCH OBJECTIVES (RO).....	201
5.2.1 <i>Emerging Issues on SDM for MY-SMEs from the Perspectives of Research Findings</i> .....	203
5.3 ‘HOLISTIC’ DECISION-MAKING FRAMEWORK & MANAGERIAL IMPLICATIONS .....	210
5.3.1 <i>Establishing strategic posture on VUCA environments and crisis interventions</i> .....	210
5.3.2 <i>Improving the management of strategic decisions and integrated resources</i> .....	212
5.3.3 <i>Developing proficiency and focus on future strategic orientations</i> .....	214
5.3.4 <i>Implementing time-bounded pathways for strategy paradigms</i> .....	217
5.4 IMPLICATIONS OF THE RESEARCH .....	220
5.4.1 <i>Theoretical Contributions of the Study</i> .....	221
5.4.2 <i>Contributions to Managerial Practice</i> .....	223
5.4.3 <i>Limitations of the Study</i> .....	230
5.5 CONCLUSION & FUTURE RESEARCH RECOMMENDATIONS .....	232
5.5.1 <i>Research Conclusions</i> .....	232
5.5.2 <i>Recommendations for Future Research</i> .....	235
<b>LIST OF REFERENCES.....</b>	<b>237</b>

<b>APPENDICES.....</b>	<b>281</b>
APPENDIX A .....	282
<i>Appendix A.1: Semi-structured Interview Questionnaires Sheet.....</i>	<i>282</i>
<i>Appendix A.2: Interview Notes Template.....</i>	<i>284</i>
APPENDIX B .....	285
<i>Appendix B1: Case study company profiles and gathered observations.....</i>	<i>286</i>
<i>Appendix B2: Tabulated Interview Transcripts based on Qualitative Interview Questions .....</i>	<i>292</i>
<i>Appendix B3: Datasets on Coded Responses based on Qualitative Interview Questions .....</i>	<i>313</i>
<i>Appendix B.4: Results on Coded Responses and Theme Occurrences.....</i>	<i>316</i>
APPENDIX C .....	319
<i>Appendix C.1: The Research's Consent &amp; Debriefing Forms .....</i>	<i>319</i>

## List of Tables

<b>List</b>	<b>Title</b>	<b>Page</b>
Table 1.1	Major differences between traditional & pandemic-related business disruptions	16
Table 2.1	Environment turbulence levels faced by SMEs	38
Table 2.2	Paradigm on Strategic Orientations	39
Table 2.3	Prevalence of growth orientations	40
Table 2.4	SMEs motivation on agency for reform	50
Table 2.5	Advantages and disadvantages of common foresight methods in context of SMEs' practices	88
Table 2.6	Overview of derived conclusions from extant literature review for this study	121
Table 2.7	Overview of Research Propositions (H)	127
Table 3.1	Comparison between five different qualitative methods	132
Table 3.2	Major variables investigated in this study.	139
Table 3.3	Case study & impact clusters sample	149
Table 3.4	Hierarchical coding system for the study	159
Table 4.1	Coding system & Theme IDs used for the analysis.	168
Table 4.2	Code applications guide on transcribed responses to interview questions.	168
Table 4.3	UAs & Objectives for Analysis	174
Table 4.4	Overview of Researcher's Interpretations	179
Table B.4.1	Ranked primary theme codes occurrences from semi-structured open interview questions	316
Table B.4.2	Distribution of secondary them codes occurrences.	316
Table B.4.3	Total code frequencies per Company ID	317
Table B.4.4	% Theme Occurrence WITHIN each Company ID	317
Table B.4.5	% Theme Occurrence ACROSS Companies	317
Table B.4.6	Determining Case Study Clusters and UA Occurrence	317
Table B.4.7	Cross-case analysis & emphasis on UAs with correlations to Strategic Decision Management	318

## List of Figures

<b>List</b>	<b>Title</b>	<b>Page</b>
Figure 1.1	Structure of thesis	30
Figure 2.1	MY-SMEs classifications	33
Figure 2.2	Strategic issues exploration model based on structural and dynamic perspectives of the firm's decision imperatives	42
Figure 2.3	Adaptation cycles for exploration & exploitation of firm's strategic postures	49
Figure 2.4	Depiction of decision-making and sensemaking affinities in firms	63
Figure 2.5	Sequence of decision process typically employed by owner-managers of SMEs	66
Figure 2.6	Integrated configuration of decision-making process in SMEs	67
Figure 2.7	Adapted military decision-making process (MDMP) model	69
Figure 2.8	First order strategic orientation on strategic regeneration	80
Figure 2.9	Basic assumption of strategic foresight for processual assimilation into firms	82
Figure 2.10	Foresight considerations on scenario-based approach to strategic planning	84
Figure 2.11	Processual implication of strategy-making with "The Futures Bridge"	85
Figure 2.12	The Foresight Diamond framework	90
Figure 2.13	Systemic Foresight Methodology	91
Figure 2.14	The 'Futures Triangle' contextual relevance on SME Strategic Regeneration	92
Figure 2.15	Identifying weak signals to ascertain future innovation orientations for SME firms	93
Figure 2.16	Utilising the Futures Window to visualise meaningful discourse on strategic orientations	93
Figure 2.17	Relevance of analytical foresight tools for agency under uncertainty	95
Figure 2.18	Pathway depiction of the Three Horizons framework	96
Figure 2.19	Strategic posture orientation fit on strategic regeneration pathways	98
Figure 2.20	Strategic posture of the firm driving the corresponding strategic regeneration orientation fit	103
Figure 2.21	Greiner's Five Phases of Growth	104
Figure 2.22	Five stages of small business growth by Scott & Bruce (1987)	105
Figure 2.23	Adizes's Corporate Life Cycle Stages	106
Figure 2.24	Evolution pathways of small firms	107
Figure 2.25	Flow activity in spiral life cycle (Sage, 1992) in tandem with corollary for strategic transformation	110
Figure 2.26	Implications of McKinsey's Three Horizons of Growth in context of managing VUCA in SMEs	111
Figure 2.27	Gartner's Hype Cycle and corresponding technology and innovation lifecycle models	113
Figure 2.28	The conceptual framework for Strategic Regeneration	124
Figure 3.1	Outline of research flow and focus of inquiries	136
Figure 3.2	Overview of the major variables and proposed interrelationships for the study	140
Figure 3.3	Research design flow	141
Figure 3.4	Research paradigm justifications for the study	143
Figure 3.5	Meredith et al (1989) framework for research methods	144
Figure 3.6	A critical realist research process adopted for the study	146
Figure 3.7	Research sequence for the study	157
Figure 3.8	Visualisation of the layered coding for the study's analytics process.	160
Figure 3.9	The analytics process mapping for this study	161
Figure 4.1	Total Occurrence of Coded Responses from Interview Transcripts	170
Figure 4.2	Secondary Code Response Frequencies from Interview Questions	172
Figure 4.3	Theme Occurrence for 'Signs of Crisis'	173

<b>List</b>		<b>Title</b>	<b>Page</b>
Figure	4.4	Theme Occurrence Within-case of ‘Acutely Affected’	176
Figure	4.5	Theme Occurrence Within-case of ‘Moderately Impacted’	176
Figure	4.6	Frequency of Coded Responses Within-case of ‘Decimation’	177
Figure	4.7	Within-case analysis on the emphasis of UAs	177
Figure	4.8	Second-order Logic Case Analysis on Strategic Postures Occurrences	187
Figure	4.9	Second-order Logic Case Analysis on Dynamic Capability Occurrences	188
Figure	4.10	Second-order Logic Case Analysis on Strategic Regeneration Occurrences	190
Figure	4.11	‘Firm orientations’ at the onset of ‘Signs of crisis’ coded response frequency	191
Figure	4.12	Firms ‘Agency to reform’ within ‘Sectoral landscape’ at the onset of ‘Signs of crisis’ coded response frequency	191
Figure	4.13	Second-order Logic Case Analysis on Ambidextrous Dispositions	192
Figure	4.14	Coded response frequency - MY-SMEs Firms' General Taxonomy of 'SDM configurations' at the onset of 'Signs of crisis'	192
Figure	4.15	SR Maturity Model for Strategic Regeneration Decision Management	195
Figure	5.1	Ternary diagram on selectivity of juxtapositions between FO deliberations for SR	208
Figure	5.2	Illustration of the effectual SO and strategy routines components for MY-SMEs deliberations of successful SR	234

## Definition of Key Terms

<b><u>Abbreviation</u></b>	<b><u>Description</u></b>
6C	Six Capitals
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
BMI	Business Model Innovation
Capex	Capital Expenditures
CAQDAS	Computer-assisted Qualitative Data Analysis Software
CLA	Causal Layered Analysis
COVID-19	Coronavirus Disease 2019
CR	Critical Realism
CT	Contingency Theory
DCO	Dynamic Capability Orientation
EO	Entrepreneurial Orientation
FO	Firm Orientations
KM	Knowledge Management
KRAs	Key Result Areas
LO	Learning Orientation
MCO	Movement Control Order
MCS	Multiple Case Study
MY-SMEs	SMEs in Malaysia
NKEA	National Key Economic Area
OI	Open Innovation
OLC	Organisational Life Cycles
Opex	Operating Expenses
QD	Questionnaire Design
RBV	Resource-based View
ROs	Research Objectives
RQs	Research Questions
SDM	Strategic Decision-Making
SF	Strategic Foresight
SI	Strategic Innovation
SM	Strategic Management
SME	Small and Medium Enterprises
SMECorp	SME Corporation Malaysia
SO	Strategic Orientation
SPO	Strategic Posture Orientation
SR	Strategic Regeneration
SRO	Strategic Regeneration Orientation
UA	Unit of Analysis
VOC	Virtual Online Calls
VoIP	Voice over IP
VUCA	Volatile, Uncertain, Complex & Ambiguous
YoY	Year-over-Year

# **Chapter 1: Introduction**

## **1.1 Background and Motivation for the Study**

This research was triggered by the scarcity of strategy guidebooks with a ‘real-world’ strategic orientation perspectives on SME business continuity amidst cyclical business and industry lifecycles challenges. Particularly, on fostering growth and maturity in the face of turbulent crises and future uncertainties. Although the extant literatures on SME maturity predominantly covered areas concerning organisational lifecycles derived from the Lippitt & Schmidt (1967) model, the researcher considered the cognitive value of small business lifecycle model (Tendai, 2013; Tam & Gray, 2016) and Greiner’s (1972, 1998) growth model in dealing with crisis as a more contextually relevant basis for review on business evolution and transitions in SME organisations which will be the central focus of this study.

This research’s assumptions on SME growth and maturity were drawn from a dynamic perspective that organisations must constantly change and adapt to their environment for sustainability of operations, economic growth, and maturity (Levinthal, 1992; Teece et al, 1997; Eisenhardt & Martin, 2000, Agarwal & Helfat, 2009). Past studies have produced evidence that management decision’s failure to react to disruptions are detrimental and may cause businesses to fail even during initial stages of development (Bradley III & Moore, 2000; Headd, 2001; Ropega, 2011; Artinger & Powell, 2016; Parker & Ameen, 2018; Braun et al, 2019; Netz et al, 2020).

From literature, the extreme definitions of failure pertinent to this study is when business is discontinued or terminated to prevent further losses (Ulmer & Nielsen, 1947) and ends with bankruptcy (Watson, 2003). Following this, companies must possess readiness to manage crises and actively anticipate them in advance by using strategic tools to identify symptoms of deterioration (Ropega, 2011) or risk rapid mortality if crisis signals was neglected (Jones, 2009).

This further entail that continuously improving and ensuring sustainability of growth and maturity via ‘regeneration’ intent can be a conceptually relevant approach which pushes the boundaries for survival of SMEs during and post a downturn or crisis era.

In living organisms, regeneration is the process of renewal, restoration, and growth that produces genomes, cells, organisms, and ecosystems resilient to natural fluctuations or events

that cause disturbance or damage. Every species ranging from the elementary form of bacteria to the most complex biological structure in humans are capable of regeneration and growth. This study adopts this biological metaphor in that organisations grow much like living organisms (Tsoukas, 1991) and that biomimicry in management sciences provides the platform for innovative business practitioners to observe and generate ideas based upon nature's solutions on growth from 'younger' to 'older' ventures (McCann, 1991).

In addition to the fact that past research has focused on risk management and resilience in SME but not specifically on the context of SME 'Strategic Regeneration', this study resorted to the essence of these core assumptions and highlighted general ideas to overcome shortcomings in available literature. In fact, this narrative generates plausibility on the researcher's intent to develop 'meaningful' approach to this research and value propositions.

From a business research perspective, what is meant by 'regeneration' in the context of strategy applications for SME businesses is unclear and remains fully unexploited. It was found from United Kingdom's Audit Commission's report in 2005<sup>1</sup> that this term was often conflated with economic regeneration of local and regional municipalities linked to inward investments to reinvigorate areas of socioeconomic decline.

This follows how urban regeneration programs were defined as attempts to reverse economic depressions or fostering socioeconomic developments by increasing, among other things, business start-ups and growth, employment, earnings, and skills development (Roberts & Sykes, 2000; Tsenkova, 2002). Although regeneration and socioeconomics are not exclusively and inherently connected, this study shall attempt to provide clarity and coin contextual relevance to the definition of '*Strategic Regeneration*' itself.

In this study, the researcher focused on fostering a 'commonsense' approach for SMEs to acquire the capability to **read** (*processing*), **recognise** (*positioning*), and **react** (*with pathways*) to external disruptions and discontinuous change. To better understand why it is critical for SMEs in Malaysia to 'build a response' to growth uncertainties and market volatilities and become more 'future-prepared', the following illustration on the compelling statements for SME under strenuous crisis due to COVID-19 pandemic is helpful:

---

<sup>1</sup> Source: <https://webarchive.nationalarchives.gov.uk/>. [Accessed 15/01/2020].

*A study conducted by KSI Strategic Institute for Asia Pacific<sup>2</sup> during the peak period of unparalleled crisis of global recession and COVID-19 pandemic suggested that severely impacted businesses face different struggles depending on their size and availability of cash reserves. As the government rolled out special relief facility (SRF)<sup>3</sup> policies and incentives to involve SMEs in procurement allocations amongst others, there remains a **dire need for SMEs in Malaysia to reconsider their business model.***

Whilst Micro-SMEs are more agile and adaptable, SMEs continue to grapple with critical short-term survival struggles. A global survey conducted by HSBC<sup>4</sup> posits that 98% of businesses were impacted and face their greatest recovery challenge with 58% of **businesses solely focusing only on short-term planning.**

Following immediate mitigation responses, SMEs must also now **deal with major differences between traditional business disruptions and pandemic-related disruptions** as listed in (Table 1.1) below:

Table 1.1: Major differences between traditional & pandemic-related business disruptions

<b>Dimension</b>	<b>Business disruptions</b>	<b>Pandemic-related disruptions</b>
Scale	Localised: impact a specific firm, geography, facility, third party, workforce	Systemic: impact everyone, including workforce, customers, suppliers, competitors
Velocity	Typically, are contained and isolated quickly once root cause of failure is determined	Spread rapidly as a market contagion across a geography or even globally with severe cascading impacts
Duration	Generally shorter duration of disruption, e.g., less than a week	Extended and longer lasting, e.g., can last up to several months
Workforce shortage	May result in temporary shortage or repositioning of workforce	May result in a quickly increasing, significant shortage of workforce, e.g., more than half the workforce
External coordination	May require some coordination with public, government, law enforcement and health officials	Require high degree of coordination with public, government, law enforcement and health officials and may require coordination with more than one regional jurisdiction
Infrastructure availability	Requires reliance on the availability of public infrastructure (e.g., power, mass transit, telecommunications, internet) to complement primary business strategies	May constrain or restrict the availability of public infrastructure as scale and severity of event increases, especially as other companies are impacted by the same issue

Source: [https://www.ey.com/en\\_gl/covid-19/covid-19-and-pandemic-planning-how-companies-should-respond](https://www.ey.com/en_gl/covid-19/covid-19-and-pandemic-planning-how-companies-should-respond). [Accessed 05/11/2020].

<sup>2</sup> Source: <https://kasi.asia/publications/struggle-of-malaysian-smes-during-the-covid-19-pandemic/>. [Accessed 10/10/2020].

<sup>3</sup> Source: [https://www.bnm.gov.my/index.php?rp=srf\\_en](https://www.bnm.gov.my/index.php?rp=srf_en). [Accessed 10/10/2020].

<sup>4</sup> Source: <https://www.business.hsbc.com/navigator/resilience>. [Accessed 20/12/2020].

Additionally, in the ASEAN SME Transformation Study 2020 conducted by UOB, Accenture and Dun & Bradstreet<sup>5</sup> it was found that whilst more than 80% of SMEs surveyed were pessimistic on economic recovery, 59% of companies will prioritise investments in digital technology to improve efficiencies and build capabilities. Seeing SMEs in such flailing situations, dynamic capability to avert calamities caused by erratic uncertainties and volatilities might indeed be incredibly useful.

Given these impediments, the urgency to make strategic decisions to respond to turbulent situations by senior management remains vital to ensure business continuity (Ketchen & Palmer, 1999; Kato & Charoenrat, 2018; Syed, 2019; Niemimaa et al, 2019; Rezaei Soufi et al, 2019). In relation to this, SME turnaround implementations would follow a typically myopic development and decision-making process to create new business models. This was found true due to the lack of anticipated strategy variants (or alternatives) other than instantaneously mitigate financial implications through organisational restructuring and downsizing (Tansey et al, 2014). In turn, inabilities to anticipate change and stimulate their environment by virtue of strategic shifts in decision making and strategy to recover was where most turnaround and survival attempts fail (Hofer, 1980; Arcari, 2018; Mihajlović & Stojanović, 2019).

As the analogy and lifecycle growth paradigm may be fitting for business organisations (Bhidé, 2000), in the prevailing pandemic disruptions, SMEs are now compelled to ascertain their livelihood by means of acquiring dynamic state with well-balanced ambidexterity and decide on a more effective and efficient sustainable approach to establish business sustainability and maturity (Levie & Lichtenstein, 2008).

From the extracted survey reports and anecdotal observations, the following questions arise – *Were the brisk strategic responses to unprecedented crisis undertaken by SMEs decisive or ambiguous? Were SMEs able to respond fast enough? Could SMEs be better ‘future-prepared’ for a similar scale of detrimental and erratic disruptions?*

SMEs globally have been facing with discontinuous change and uncertainties of VUCA (Volatile, Uncertain, Complex, Ambiguous) environments repeatedly. The VUCA acronym originated from US Army War College program for Strategic Leadership to develop strategic and senior military leaders who will be expected to operate ‘comfortably’ in a chaotic, turbulent,

---

<sup>5</sup> Source: <https://www.uobgroup.com/asean-insights/markets/>. [Accessed 20/12/2020].

dangerous and rapidly changing situation (Kinsinger & Walch, 2012; Lawrence, 2013). The nature of warfare itself is complex as it involves multiple and multitude of factors influencing the outcomes. Amongst the key challenges a good strategic leader must deal with and deliver clear communications on the ‘end state’ to his battalion include – political and geopolitical objectives, culture, social and natural environment amongst others (Cook et al, 2001).

VUCA on the battlefield can be terrifying and would seem so too in the inherently “new normal” in today’s ‘post-pandemic’ business world. In SME context, the ‘pace of change’ and environment in which it operates now require leadership decisions on “mission critical” strategic shifts involving people, process, technology and structure to be reliably swift and versatile as opposed to being sluggish and rigid (Horney et al, 2010).

Consequences of erratic external disruptions may cause adverse consequences to company survival, disrupting existing resources and capabilities. SMEs must be more proactive to stay ahead and remain competitive (Schendel & Hofer, 1979) and take an adaptive approach (Baker & Sinkula, 2009) to manage discontinuous change, particularly in an unpredictable world.

Highly limiting business-external factors dominate the impact observed when dealing with discontinuous and continuous crises (Laskovaia et al, 2019) and this include amongst others - market and business drivers, policies, and availability of government assistance. Additionally, past research has also pointed to three general categories of firm issues concerning firm orientations (hereafter, “FO”) faced by SMEs when aiming to recover in highly intense crisis or hostile economic environments:

- a) *Structure*: associated with non-conformity in management policies that hinders agility and creates breakdown in strategic decision communications.

Decision making in environments characterised by instability and elevated levels of dynamism (Wright et al. 2005) acutely expose owner-managers in SME organisations to hazards such as goal conflict or tensions involving financials, including organisational culture and behaviours (Nes & Segerstrom, 2006; Pearse, 2017). Removing obstacles on schedule impacts and resources which are most prevalent when dealing with VUCA context require robust decisions and sensemaking which will allow businesses to rapidly restructure internally and externally (De Jorge Moreno et al, 2007). This follows that SMEs mostly aim to survive in an economic downturn rather than achieving growth.

- b) *Preparedness*: overstrains due to sluggish or outdated business capacity (or strategy) that persists with continued unresponsiveness to crisis diversions.

Managing stakeholders' expectations under uncertainty require a radical rethink of how SMEs must prepare and implement change (Pearse, 2017) as traditional approaches to strategic planning may be risky or insufficient (Courtney et al, 1997). As leadership role targets to intensify analytics and diagnostic activities to determine action plans to address gaps within the organisation (Baran & Woznyj, 2020), existing vision and value system shape the basis for managerial decisions (Adner & Helfat, 2003). Failure to draw conclusions and reinvigorate commitments based on deficient and ineffective results obtained from past investments (King, 2007) hinders the need to be resilient and adaptable to changes in the downturn (Price et al, 2013). Moreover, proactiveness to implement additional or effectively manage resources and capabilities can in turn make the business successful during market changes (Grant, 2013).

c) *Inertia (or tendency to resist pace of disruptions)*: obstructive lack of information, availability and supportive environment to foster meaningful strategic shifts.

Economic crises present major threats to firm survival and performance but may create potential opportunities upon which firms may capitalise (Bao et al, 2011). Constraints due to limited access to additional funds, technological and managerial capabilities require leadership roles to provide clarity to overcome the novelty and inexperience on managing the disruption (Marino et al. 2008; Varum & Rocha 2013). Younger SMEs tend to show greater likelihood of growth during a crisis (Cowling et al, 2018) partly due to resourcefulness. Whilst pessimistic owner-managers who are inadequately prepared and exhibit primordial attitudes have less access to the external environment, in turn, they face difficulties in managing disruptions (Stone, 1975; Geroski & Gregg, 1993; Smallbone et al, 1999). The exploitation of new and emerging information and opportunities are an important driver of new entry and growth for SMEs (Baker & Sinkula 2009) and promotes agility to gain inertia to better respond to crisis.

### ***1.1.1 General issues concerning SME growth & maturity***

The impact of COVID-19 pandemic Movement Control Order (MCO) lockdown<sup>6</sup> on SMEs in Malaysia were to some extent detrimental, causing severe implications on: (a) operational and supply chain disruptions, (b) incapacity to predict/anticipate the business future and outlook, and (c) major financial setback with risk of bankruptcy (Rafli et al, 2020). In addition to these

---

<sup>6</sup> Source: <https://www.mkn.gov.my/web/ms/covid-19/>. [Accessed 20/03/2021].

stipulated tribulations, SMEs firms were also forced to deal with ongoing and perennial challenges with regards to: (a) access to financing, (b) market and product generation/expansion, (c) talent/workforce retention, and (d) barriers to technology adoption (Hu, 2017; Yoshino & Taghizadeh-Hesary, 2017).

These conditions were made worst by economic instability occurring at the same time, influenced by oil prices spiraling downward out of control causing additional hefty losses and chronic impact on profitability and long-term survival of affected businesses (Joo et al, 2020). With similar themes observed globally, an international survey conducted by McKinsey (2020) reported that almost 36% of small businesses have closed permanently from the disruption in the first four months of the pandemic.

Whilst evidence on the impact of COVID-19 on SMEs in 132 countries by indicated severe losses in revenue (ITC, 2020), the argument remained that current survival strategies and business continuity are at its most precarious or fragile state. This led to further implications of limited access to resources and distribution channels aggravating further cessation of conformity to conventional business processes and practices.

In preceding periods and presently, SMEs in Malaysia contemplate on business revitalisation or recovery to either recuperate or reap benefits from the plethora of ‘crisis-induced’ growth opportunities amidst the prevalent economic downturn (Omar et al, 2020). However, empirical evidence suggested SMEs that pay particular attention to planning and control methods with clear decisions to necessitate change are in better positions to propel its growth, moving forward with sustainable trajectory (Rafliis et al, 2020; Vaaland & Heide, 2007).

Unlike major global players, SME businesses at regional levels respond to global risks and disruptions differently (Asgary et al, 2020) and SMEs in Malaysia are not spared. Relative to this, unpreparedness amongst SMEs in emerging economies at managing adverse risks, and with weak or lack of institutional support (Han & Nigg, 2011) cause them to be most susceptible to erratic disruptions including impact of post natural disasters (Leopoulos et al, 2006; Marks & Thomalla 2017). The COVID-19 pandemic, for instance has proliferated similar impacts of health emergency scalable to natural disasters with high mortality to human lives and many businesses decimated.

During such and similar periods of economic uncertainty or crisis, SMEs afflicted with financial incapacity to retain flexibility in managing business erosions are often impeded by

weak sensemaking abilities to make strategic decisions leading them to face higher risks of business closure (Ates et al., 2013; Sannajust, 2014; Wehinger, 2014; Karadag, 2016).

Given the inherent challenges with extreme consequences faced by ‘novice’ and ‘matured’ SMEs in Malaysia alike, when completely unprepared or ‘unconsciously incompetent’ to effectively plan and respond to uncertainty and discontinuous change, it is presumed that there must be many aided processes and guidelines from past research in dealing with the problem particularly in the recent past. Nonetheless, research for the Malaysian context on management theories for SME successes remain limited (Hashim & Ahmad, 2005; Mokhtar et al, 2014).

### ***1.1.2 Research Gap & Problem Statement***

Review of past research has revealed the archetypal intermittent practice and conventional planning in managing indeterminate and discontinuous external disruptions to SME businesses. Whilst the lacunae of ‘holistic-sensemaking’ and functional futureproofing of strategy and decision-making corollaries for SMEs in Malaysia remain untapped, the fragmented and little cross-referencing between scholars on three major perspectives or standpoints of (a) *strategic management*, (b) *strategic foresight*, and (c) *strategic innovation* attested to the low level of yield and practical adoption of sounder and structured strategy-making processes with more efficient decision frontiers by SMEs for rapid evolution and transition.

Another reason emanates from the organisational disposition or general ‘character’ of SMEs which clings-on to ‘myopic’ stance and ‘primordial’ thinking on strategy approach. This in turn, limits the ability to ‘proactively’ scan for ‘signals’ on emerging erratic disruptions, deterring efficacies of strategic management practices from being further appropriated by scholars of future studies or future-oriented management systems which include strategic foresight sciences.

The surplus extant of business publications on the practice of making strategy and decision-making targeted at SMEs typically flaunt on crafting and implementing prescriptive and temporally ‘atomistic’ (or disjointed) strategies for business recovery and turnover. Moreover, priorities in building foresight into management systems are prevalent in the more structured large organisations (Schwarz, 2007; Markus, 2008; Rohrbeck & Schwarz, 2013).

Notwithstanding some studies have revealed strategic foresight and future-oriented management systems and analytics are detested by most owner-managers in SMEs typically driven by “emotions” (Tilley & Fuller, 2000), studying future foresight implications to SMEs

must be pursued based on: (1) omnipresent threat of illiteracy on ‘future-preparedness’ to manage external disruptions and discontinuous change within SME community diminishes corollaries for business sustainability; and (2) lack of organisational knowledge, competency and systems approach amongst SMEs community jeopardise effectiveness of strategic decisions on growth and maturity.

Henceforth, further exploration representing the three major research standpoints of strategic management, strategic foresight and strategic innovation contextualised the complex riddle presented by this study on how to engage SMEs in a meaningful discourse pertaining to the robustness of decision-making processes for future-preparedness (Erdmann & Behrendt, 2006; Curry & Hodgson, 2008).

## **1.2 Research aims & objectives**

This study aims to enhance past practices and scholarly works by assimilating future-preparedness and sensemaking into SME strategy practices by deconstructing the pillars of strategic management, strategic foresight and strategic innovation. To do so, additional knowledge on holistic best practices and the contextual ramifications of managing environmental disruptions and uncertainties with dynamic capabilities were explored.

Building on extant literature review, the primary aims of the study are twofold:

- (1) To contribute to *advancing theory* by means of:
  - a. Validating the contextual relevance and applications of systems approach to managing external disruptions and discontinuous change - by building on past research and conceptual applications and establishing sustainable & scalable strategic planning initiatives for SME ‘Strategic Regeneration’.
  - b. Developing the foundations of exploratory techniques on ‘future-preparedness’ specifically for SMEs post the COVID-19 pandemic – by identifying gaps in past research and extending the practical implications to produce solutions and extent of which it correlates to the successful operationalisation of business strategies for SME evolution and transitions.
- (2) To contribute to *improving management practices* by virtue of:

- a. Demonstrating the essence of dynamic capability and corollaries of holistic framework for decision making impetus for SMEs in managing indeterminate external disruptions and discontinuous change.
- b. Prescribing a novel and ‘useful’ approach on establishing growth/maturity and best practices for strategic regeneration which allow adoption of sensemaking and the contextual implications of making robust and sensible strategic shifts.

It is anticipated that to promote ‘meaningful’ strategy and strategic decision-making imperatives linked to future-preparedness impetus on managing indeterminate disruptions and discontinuous change within SMEs, contextual approach to explicate maturity model on the quantum criteria for ‘Strategic Regeneration’ of SMEs particularly impacted by the COVID-19 pandemic situation seems timely and practical.

This follows the adoption of maturity models would correspond well with promoting a new way of managing strategic decisions in organisations, such as using the effective Business Process Management (BPM) model amongst others, which provides a holistic framework for detailed evaluation of capabilities and maturity results attainment (De Toro & McCabe, 1997; Rosemann & De Bruin, 2005).

In consequence and in the interest of **building a holistic framework for strategic decision-making in managing growth uncertainties and market volatilities for SMEs in Malaysia**, this study shall be pursued with the following research objectives (ROs):

- **RO1:** To identify the critical success factors that enable sustainable growth and maturity of SMEs in prevalent VUCA environments.
- **RO2:** To determine the level of resourcefulness and awareness of SMEs in administering efficient strategic decision-making frontiers.
- **RO3:** To identify factors that influence SME’s ability and preparedness to respond to growth uncertainties and market volatilities.
- **RO4:** To determine the present decision-making practices and model used by SMEs and introduce a novel and structured intervention scheme for strategic decision management.

The researcher envisioned that via the development and application of the study’s ‘meaningful’ discourse between SMEs and internal stakeholders, it will broaden the contextual implications of institutionalising processual decision-making context on future-preparedness for SME evolution and transitions. By further developing the maturity model and decision-making best

practices for SMEs, it will also be a significant contribution to benchmarking and cross-industry analogy which also serves to advance management practices in companies and foundations for realistic decision management that accurately reflects SMEs' industry realities (Mittal et al, 2018).

In achieving these stated objectives, this study shall be conducted and is guided by four research questions (RQs):

**RQ1: *What are the implications of firm orientations (FO) on the (1) business context (prevalence of growth frontiers), and (2) contextual implications (agency to reform) in managing growth uncertainties and market volatilities for SMEs?***

RQ1 interprets the need to develop dynamic capability from a research gap and perspectives on the existing paradigm. In this context it is essential to explore causal ambiguity and patterns on how strategic decision-making which include organisational actions and results, and competencies are correlated to strategy and competitive advantage (McIver & Lengnick-Hall, 2018; Konlechner & Ambrosini, 2019).

**RQ2: *What are the implications of Dynamic Capability on firm orientations (FO) and the business context of managing strategic resources during crisis?***

RQ2 addresses the wider context for investigation which identifies effectuation and causation patterns of strategic decision-making by SME firms in managing economic crises and challenges (Laskovaia et al, 2019). This question sets out to define the key enablers of decision management and help understand the boundaries of strategy implementation and limitations. Hence the focus on correlation of innovative capability and relevant antecedents helps to monitor corollaries to strategic thrust and decision effectiveness.

**RQ3: *What are the implications of rooted Strategic Innovation & Strategic Foresight factors on firm orientations (FO) in developing proficiency and focus on SMEs' strategic regeneration?***

RQ3 explores the multitude of strategic innovation implications on SMEs' response repertoire in managing crises from past research to highlight how the process of decision-making need to transform over time with causal implications learning (Mosakowski, 1997). Thus, expounding the practical context of 'future' perspectives to highlight decision management effectuation logics to manage with increased risks (Cui et al, 2019) with structure, preparedness and inertia for increased sustainability and business continuity in firms.

***RQ4: How would a ‘Strategic Regeneration’ maturity model impact or contribute to strategic decision-making processes and strategy implementations performed by SMEs in the long run?***

RQ4 uncovers the correlations and amplifications of effectual decision-making logics to SME innovativeness (Vanderstraeten et al, 2020) with critical identification of cognitive factors for sustainable decision-making (Muñoz, 2018) in managing extremities during crises and disruptions caused by highly VUCA external environments.

### **1.3 Scope of the Study**

The study is purposefully focused on eliciting continuous improvements to strategy-making practices with the general aim and objective to foster a more practical and meaningful dialogue between owner-manager and key stakeholders in SME firms on managing uncertainties and volatilities with ‘foresightedness’.

Careful considerations were given on the selection of SME participants from multiple sector/industries greatly impacted by the current COVID-19 pandemic for contextual relevance and accuracy on findings for the study. The landscape of sectors was based on SME Corporation Malaysia’s (hereafter, “SMECorp”) new definition of SMEs<sup>7</sup> (updated September 2020) which covers manufacturing, services, construction, primary agriculture and mining & quarrying. SMECorp is the central agency under the Malaysia’s Ministry of Entrepreneur Development and Cooperatives (MEDAC) that coordinates the implementation of development programmes for SMEs nationally.

The case study method adopted for this study covering key standpoints of strategic management, strategic foresight and strategic innovation created immersiveness in the visualisation of strategy impetus and imperatives for investigating decision-making practices by SMEs in Malaysia. Inquiries using structured interviews and questionnaires were employed to elucidate meaning for the specific themes of: (1) past SME experience with managing uncertainties and volatility crises; (2) current SME experience with indeterminate disruptions

---

<sup>7</sup> Source: <https://www.smecorp.gov.my/index.php/en/policies/2020-02-11-08-01-24/sme-definition>. [Accessed 10/11/2020].

and discontinuous change during the COVID-19 pandemic; and (3) future plans to cope with growth uncertainties and market volatilities.

Given the broad scope to cover the extent of issues SMEs face in addressing the unprecedented COVID-19 pandemic, the following sections shall describe in detail the conceptual framing of the study's approach on assessment of complex events surrounding SMEs' crisis mitigation and intervention planning to date.

Subsequently, it was crucial for this study to be delineated towards an outcome-based causation procedure to quantify strategic regeneration from a resource-based perspective with underpinning conceptual applications of integrated six capitals model. In turn, the conception of multitude of strategic decision-making frontiers for achieving business continuity would allow significant shifting of focus in SMEs from performing intermittent strategic planning cycles to a more robust tool to foster continuous innovativeness with application of systems thinking.

### ***1.3.1 Significance of the Study***

The importance of this research was highly strategic and timely in relations to SMEs seeking for solutions to face challenges directly impacting their survival and growth strategy management during and post the COVID-19 pandemic. The main aim of this study was to contribute to management literature and supplement theoretical underpinnings and applications for SME best practices.

Notwithstanding future analytical approach or foresight for SMEs are mostly confined to strategy roadmap development for general communication with shareholders (Holmes & Ferrill, 2005; Jun et al., 2013), the expected contributions from this study for *management practice* include: (1) development of an effective and comprehensive methodology for managing uncertainty in resource-limited SMEs for quick and cost-efficient decision-making (Vishnevskiy et al., 2015); (2) identification of time-bounded strategy pathways and decision frontiers via a maturity model to aid strategic decision-making in companies afflicted with external disruptions, and (3) transforming ways SMEs observe absorptive capacities and perform strategic planning with innovation management (Jannek & Burmeister, 2007; Igartua et al, 2010).

This study combined practical and strategic analytics processes through the lenses of management science and as suggested by Whittington (2006), to trigger enquiries for higher

efficacies on *Strategic Decision Management* (hereafter, “SDM”). Furthermore, adopting holistic innovative frameworks for sustainability will ultimately empower SMEs and increase development in its emergent communities (Sianipar et al, 2013).

The expected contributions to *literature and theory* include: (1) complementing the rarely undertaken past research findings by developing a practical framework which addresses the strategy and SDM shortcomings on future-preparedness in the context of SMEs in Malaysia, (2) expanding the understanding of value reinforcements on decision frontiers generated by radical reformation and open innovations, (3) proponent of explorative/exploitative heuristic approach on strategic decision-making adopted from psychological studies (Kahneman & Tversky, 1979; Gigerenzer & Goldstein, 1996) via deconstructing typically normative decision process in managing crisis in SMEs (Busenitz & Barney, 1997; Ogarcă, 2010), and (4) extension of theoretical basis for future research opportunities which will solve and harmonise potential antecedents to strategic regeneration and help infuse practical and innovative decision-making best practices into SMEs organisations.

### ***1.3.2 Delimitations of scope and key assumptions***

The following assumptions and delimitations were considered for this study to better understand the applicability and generalisability of results.

#### *1.3.2.1 Assumptions*

Meaningful appraisal of the study and scope of enquiry developed for this research relied on key assumptions’ influence on the outcomes of the higher education research (Kirkwood & Price, 2013). Integrated assumptions in this research include: (a) the study participants are to a certain extent knowledgeable about sustainable growth and strategic planning within the context, and (b) study participants’ response was truthful, unbiased and provided information detailing the contextual relevance to the research problem. Further detailed assessments on relevant research assumptions shall be dealt in Chapter 3.

#### *1.3.2.2 Delimitations*

Robinson (2014) suggested careful consideration of sampling criteria to select the target sample based on the objectivity of the study in connection to effectively addressing the RQs and testing the theory. Furthermore, given the distinct profile and status of contextual relevant

and growth appetent Malaysian SMEs (hereafter, “MY-SMEs”) which are located in central region and urban setting within Klang Valley and the capital city of Kuala Lumpur but not limited to SMEs in the entire state of Selangor; it was decided that for the purpose of this research, the following minimum criterion on MY-SMEs participants shall apply: (a) *one (1) candidate from ACE/LEAP market listings in Bursa Malaysia*<sup>8</sup>, (b) *one (1) candidate with 50% local equity*, (c) *four (4) candidates with maximum sales turnover of MYR50 million (Malaysian Ringgit Fifty Million)*, and (d) *four (4) candidates with maximum limit of 75 employees*.

Furthermore, these criteria were purposeful upon reaching saturated point with representative samples of MY-SMEs for contextual relevance of this research. The study also concentrated on SME businesses led by owner-managers with tangible implications of cultural and emotional dispositions due to their inherent nature and distinct management style and structure. The prescribed delimitations may well restrict the applicability of the study (Ellis & Levy, 2010) on a general scale; however, it is anticipated that through constricted boundaries as such the practical applicability of the study results may be better apprehended.

## 1.4 Thesis structure

The standard framework of five section chapter structure discussed by Perry (1998) were employed for this thesis to demonstrate a unified structure in presenting the core research problem and thesis conclusion (Easterby-Smith et al., 2012). A visual depiction of the structure of this thesis is shown in (Figure 1.1).

**Chapter 1** – shall provide a general overview on the research background and motivation which was intended to draw attention to unique impetuses and corollaries pertaining to SMEs’ responsiveness and future-preparedness in managing external disruptions and uncertainty. Additionally, correlations between major research standpoints (strategic management, strategic foresight and strategic innovation) associated with the administration of growth and maturity frontiers are introduced. This chapter shall illustrate the bigger picture and knowledge gaps in

---

<sup>8</sup> Source: [https://www.bursamalaysia.com/listing/get\\_listed/listing\\_criteria](https://www.bursamalaysia.com/listing/get_listed/listing_criteria). [Accessed 10/10/2020].

the context of applications of *strategic management tools for growth uncertainty and market volatility crisis decision management* by SMEs in Malaysia upon which the RQs were established. The outline of research framework and objectives are to be presented with clarity to define the implications of the study and set out the foundations for the following chapters.

**Chapter 2** – shall provide deeper insights into multitude of theoretical and practical implications from past research related to the three major research standpoints and areas of focus stipulated in the research framework. Critical review of extant literatures was conducted to define the research gap and fundamental building blocks for a *strategic regeneration conceptual framework* for contextual applications and seminal reference. The researcher continues the research arguments via discussing the underpinning theories with unique contributions to SMEs' future-preparedness and best practices on defining pathways (or decision frontiers) particularly when dealing with turbulent crises and uncertainties. This chapter shall be concluded with validation of the problem statement and research aims with research propositions to conduct the research objectives and interview questionnaires.

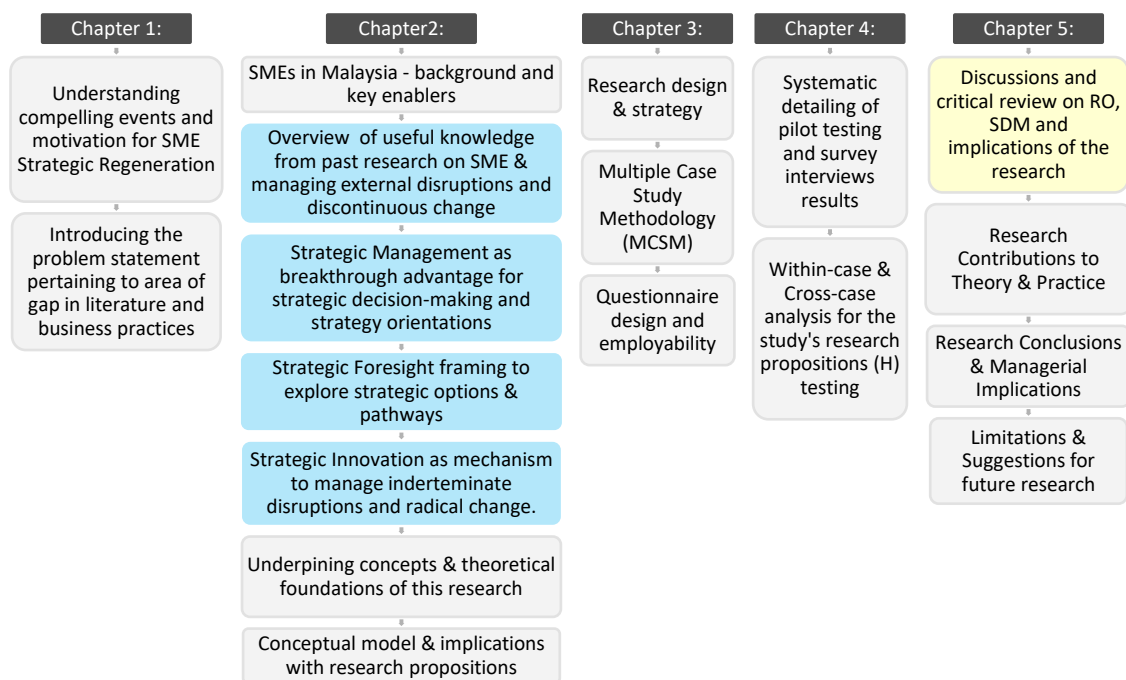
**Chapter 3** – provides the identification and justifications of the qualitative research approach, research philosophy and research design processes to be used to examine empirical evidence and test the conceptual framework. Subsequently, the proposed research workflow with ascribed processes are introduced to complement the research strategy and build-up the researcher's case for maturity model of managing external disruption and discontinuous change. Rationality of adopted *inductive* approach with semi-structured interviews questionnaires with multiplicity of case studies shall be deliberated. Preparation of the interview questions, sample and case selection, data collection instruments and analysis tools, profile of key respondent companies and drawing of conclusions will be discussed followed by pilot testing for validity and reliability. Prescribed data collection and procedures employed in this study shall be further supported with ethical considerations.

**Chapter 4** – systematically details the results of the instrument pilot test, followed by descriptive and inferential analyses on the empirical study using data collected from semi-structured interviews with key respondents from MY-SMEs participants. Presentation of data reduction and coding procedures using MS Excel software shall include the corresponding validation of research propositions and modifications to the conceptual SME Strategic Regeneration framework based on actual findings and analysis of responses. Further analyses on outcomes drawn from the study in relations to researcher's interpretations and observations

shall follow suit in order to provide answers to the RQs and determine a coherent maturity model for industry practice and application.

**Chapter 5** – shall present and elaborate in detail the critical arguments on major case studies findings in (Chapter 4) with critical review of the RO based on contextual arguments for development of contributions to theory and managerial practice. Further in-depth discussions on research implications shall be detailed, evoking contextual similarities and differences with relevant past research and reflecting upon the study's findings implications to external stakeholders and policymakers. This chapter shall conclude the study and present the closing arguments with research conclusions, limitations and recommendations for future research.

Figure 1.1: Structure of thesis



Source: Developed by researcher

## **1.5 Summary of the Chapter**

This chapter laid the foundations for the research on harnessing innovative best practices to gain economic advantage and managing a downturn with strategic regeneration for MY-SMEs. Setting the scene for research effort, the chapter further elaborated on potential knowledge gap on practical applications of established three major research standpoints for ascertaining sustainability of growth generation that persisted within the context of environmental turbulence and industry sectors SME firms are in. The chapter also discussed on the impetus and corollaries for holistic framework on strategic decision-making with strategic regeneration in managing indeterminate disruptions and uncertainties. Upon reflection, presented aims for this exploratory study led to clearly defined research objectives which required thorough investigation of antecedents and causes to effective SDM and future-preparedness. Overview of the research context and approach were presented to complement empirical case study investigation of the research objectives (ROs) and research questions (RQs). Furthermore, anticipated research contributions pertinent to management practice, literature and theory, were also presented. This in turn aided the justifications for presented boundaries of the research particularly in terms of its prescribed delimitations. Nonetheless, the following chapter shall elicit further in-depth literature review and theoretical discussions on ‘SME Strategic Regeneration’, identifying the different perspectives, dimensions, strategic thrusts and inhibiting factors.

## Chapter 2: Literature Review

### 2.1 Overview

This chapter shall build the study's theoretical case and elaborate further on the *three major research standpoints, maturity models and contextual relevance of futures studies and underpinning theories* central to generating theoretical ideas to help delineate the study's compelling problem statement.

### 2.2 SMEs in Malaysia – Background and key enablers

#### 2.2.1 SMEs in general - Size, Sectors, Classifications & Contributions

MY-SMEs' culture and context prominently differs between rural and urban enterprises and in terms of capability level and innovativeness level of the firm (Yuen & Ng, 2021). This study concentrated on the locality in two national states with the highest number of SMEs (i.e. excluding 'Micro-SMEs' and 'Large' firm establishments), namely Selangor (19.8%; 42,252 SMEs) and Wilayah Persekutuan Kuala Lumpur (14.7%; 31,369 SMEs) from a total of 213,395 SMEs (Small & Medium firms) in Malaysia<sup>9</sup>. In terms of sector focus, the highest number of MY-SMEs establishments are concentrated on the areas of: (i) Services (89.2%), (ii) Manufacturing (5.3%), (iii) Construction (4.3%), (iv) Agriculture (1.1%) and (v) Mining & Quarrying (0.1%). Subsequently, majority of businesses in these firms are domestic driven, promoting them to be more resilient than the large firms and were able to temporarily withstand external shocks and global market fluctuations considerably well.

The active contribution of SMEs which make up approximately 98.5 percent<sup>10</sup> of the total backbone enterprise population in the country proved vital to the Malaysian economy. Amongst

---

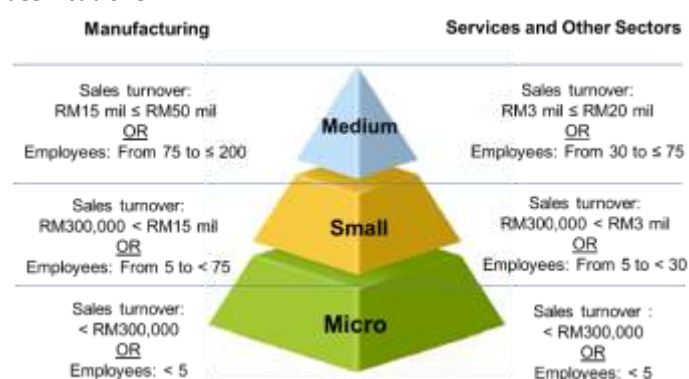
<sup>9</sup> A total of 693,670 Micro-SMEs adds-on to a grand total of 907,065 number of SME establishments in Malaysia. An additional number of 13,559 enterprise are recognised as large firms, bringing the total of 920,624 business establishments in Malaysia. Source: Economic Census 2016: Profile of Small and Medium Enterprises (reference year 2015), Department of Statistics, Malaysia. [Accessed 20/02/2020]

<sup>10</sup> Source: <https://www.smecorp.gov.my/index.php/en/policies/2020-02-11-08-01-24/sme-statistics>. [Accessed 20/03/2021].

the registered total of 907,065 establishments, only 23.5 percent were classified as small and medium sized enterprises. From the annually reported findings made by SMECorp on SMEs in 2018<sup>11</sup>; in terms of economic contribution, SMEs contributed 38.3% to overall GDP, 17.3% to total exports and 66.2% to total employment during the year. It also indicated the Services and Manufacturing sectors dominance in GDP contributions at 23.9% and 7.7% respectively in year 2018. Comparative figures from the previous years indicated a steady increase, with projected cautious outlook for the subsequent years ahead influenced by subdued growth in the global economy.

Figure 2.1 depicts the classification of MY-SMEs based on established definition by SMECorp in terms of sales turnover and number of employees in respective establishments. The definition and classification criteria for SMEs were also used to define the scope of eligibility for government assistance (Bank Negara Malaysia, 2013). In fact, this classification shall guide the study's research sample & case selection which will be elaborated in Chapter 3.

Figure 2.1: MY-SMEs classifications



Source: SME Corp. Malaysia<sup>12</sup>

Chin & Lim (2018) posited that the Malaysian government's involvement and development of strategic masterplan, namely the Second Industrial Master Plan 1996-2005 (IMP2), led MY-SMEs to be more resilient to economic disruptions during the 1998-99 Asian Financial Crisis compared to much larger corporations. In turn, this gave rise to the development of the Third Industrial Master Plan 2006-2020 (IMP3) and the SME Masterplan (2012-2020). Both these masterplans aimed to encourage MY-SMEs' growth via internationalisation and emphasise

<sup>11</sup> Source: <https://www.smeCorp.gov.my/index.php/en/resources/2015-12-21-11-07-06/sme-annual-report>. [Accessed 20/03/2021].

<sup>12</sup> Sources: <https://www.smeCorp.gov.my/index.php/en/policies/2020-02-11-08-01-24/sme-definition>. [Accessed 01/12/2020].

innovations and adoption of new digitalisation technologies. Nevertheless, issues covering broad area of adoption of innovation and technology, financing, legal and regulation, quality of human capital, market and infrastructure, provided limited attention to enhancing their environmental performance (Ong, 2015).

Additionally, Malaysia's SME Bank's Centre for Entrepreneur Development & Research (CEDAR)<sup>13</sup> have developed SME development programmes in Malaysia which are centered on six focus areas of the developed National Key Economic Area (NKEA) sectors – (i) Tourism & Hospitality, (ii) Education, (iii) Retail & Wholesale, (iv) Healthcare, (v) Green Technology, and (vi) Oil & Energy. The NKEA was part of the previously led government's Government Transformation Programme (GTP) and the Economic Transformation Programme (ETP), which underpin Malaysia's efforts to become a developed, high-income nation by year 2020 being part of the year 1991 tabling of the Sixth Malaysia Plan (or "Wawasan 2020")<sup>14</sup>. Nonetheless and somewhat in context and notions of this study, the "Wawasan 2020" has since been expended by the *realities of an uncertain future*. This led to the evolution of a new government blueprint - Shared Prosperity Vision 2030 (abbreviated SPV2030) to foster national growth and maturity for the period of 2021 to 2030 to come.

Sadly, the economic instability caused by the unprecedented COVID-19 pandemic and implementations of MCO has led to about 73% of SMEs registering losses in 2020 according to SMECorp. In light of this situation which continues to persist into the first half of year 2021, the Malaysian government in conjunction with SMECorp's custodian role have rolled out initiatives to mitigate the impact of COVID-19 which included the PRIHATIN Economic Stimulus Package (ESP) unveiled by The Prime Minister in March 2020, Bank Negara Malaysia's (BNM) loan payment deferments, and many forms relief measures for all SMEs in the country amongst others. Most importantly, these programmes are in place to ensure MY-SMEs continued sustenance for conducive birth, re-birth, and growth.

Likewise, MY-SMEs are encouraged to adopt differentiated strategies using digitalisation technology to increase the speed and agility of business recovery and survive the new normal. Despite this fact, strong focus on reviving MY-SMEs seems to concentrate on business continuity plans. On managing cash positions particularly with the limited financial and

---

<sup>13</sup> Source: <https://www.cedar.my/> [Accessed 10/06/2020]

<sup>14</sup> Retrieved from the national repository; source: <http://hids.arkib.gov.my> [Accessed 20/01/2020]

nonfinancial resources (Welsh & White, 1981; Yoshino & Taghizadeh-Hesary, 2017), challenges faced by MY-SMEs are greatly and acutely multiplied.

Sharma (2020) posited that SMEs' legacy practices on functional areas such as production, marketing, finance, human resources and information technology no longer applies in the current and prevailing scenario of uncertainty. The fact that SMEs tend to be more prone to be afflicted by the negative effects of environmental factors (Welsh & White, 1981; d'Amboise & Muldowney, 1988) has forced firms to consider alternative resources and relook into the management of its cash flow (Kilpatrick, 2020).

Consequently, this challenging period of economic instability and VUCA environment has provided MY-SMEs a window of opportunity to reconsider or redefining their strategies for survival. With the organisational structure of SMEs being much leaner and access to key stakeholders much closer (Eggers et al., 2012), SME firms require valuable and 'useful' market information to be able to react to impending crises.

On the regional perspective, Southeast Asia being one of the fastest growing regions in the world, the window of growth opportunities for MY-SMEs imposed great attention to be made on the ability to survive and grow in a highly competitive and volatile global marketplace. SMECorp has documented in its published SME Annual Report 2017/18<sup>15</sup> which was prior to the COVID-19 pandemic, that strategy implementation related barriers undermining performance faced by SMEs in Malaysia included but are not limited to: (a) lack of competency managing financial & capital options, and (b) limited access to technology & knowledge on innovative solutions.

Based on available Asian management literature; SMEs' issues and challenges faced in context of sustainability and competitiveness within the globalised arena include: (i) access to capitals & financing, (ii) innovation & technology adoption, (iii) leadership & human capital development, (iv) market access, (v) infrastructure, legal & regulatory environment, amongst others (Wang, 2003; Wang et al, 2007; Stuti, 2005).

Development of effective strategy on sustainability of growth for SMEs has always been a perennial endeavour as demonstrated by multiple researchers in the recent past (Doane & Macgillivray, 2001; Dobbs & Hamilton, 2007; Jabareen, 2008; Chang & Kuo, 2008; Prabawani,

---

<sup>15</sup> Source: [http://www.smecorp.gov.my/index.php/en/?option=com\\_content&view=article&layout=edit&id=3342](http://www.smecorp.gov.my/index.php/en/?option=com_content&view=article&layout=edit&id=3342). [Accessed 01/12/2019]

2013; Isada & Isada, 2014; Ong, 2015; Schwab et al, 2017;) amongst others. In particular, aligning academic thinking with practical application to accomplish sustainability of growth for regional SMEs had consistently been a core focus in the APEC region (Karikomi, 1998; APEC, 2013) continually for over two decades as articulated in APEC Annual Report 2018<sup>16</sup>.

## ***2.2.2 MY-SMEs and the prevalence of growth frontiers during crisis***

### ***2.2.2.1 SME Growth determinants***

Freiling (2007) suggested based on empirical surveys that growth and profitability of SMEs were associated to coherent multi-functional approach in managing enterprises. This follows the corroborated findings that growth and profitability of SMEs were attributed to multiple dimensions on knowledge management (hereafter, “KM”) that can produce positive impact on performance (Omerzel, 2010). Perényi & Yukhanaev (2016) postulated in the case of Australian SMEs that a more holistic firm growth model was necessary to promote sustainable growth in addition to improving organisational efficacies. This also corresponded to evident practices of combined generic strategy and strategic change over long-term period which encouraged higher profitability and growth for SMEs (Leitner & Guldenberg, 2010). In this study, the researcher shall delve into arbitrating measures for MY-SMEs to identify strategies to neutralise revenue stagnation or decline.

Moreover, MY-SMEs have been concentrating focus on the adoption of strategic market orientations and entrepreneurial orientations in multiple efforts to seek a more proactive measure against market volatilities (Nasir et al, 2017). With each firm regardless of size having its own perception of the industry environment and strategic options, the firm’s responses to external disruptions and its primary driver for innovation would rely solely on its strategy orientations (Kumar et al, 2012). In which they are often reactive to external environmental changes.

With alarming failure rates of approximately 60% and only 4 out of 10 SMEs can successfully deal with key challenges on growth within a period of five years of its establishment (Ambad et al, 2020), scarcity of research in the insurances on prevalence of growth frontiers during

---

<sup>16</sup> Source: <https://www.apec.org/Publications/2018/11/2018-APEC-Economic-Policy-Report>. [Accessed 10/12/2019].

crisis remains. Ambad et al (2020) also postulated that SME barriers to growth namely; financial issues, human capital concerns, strategic marketing limitations, stakeholder's management issues and supply chain problems continue to be unresolved. Therefore, this leads to potential 'deep-learning' gaps on policymaking to continue being festered.

Consecutively, as firms' growth determinants are in somewhat associated with managing failures, Ahmad & Seet (2009) posited that understanding the source and causes of failures would provide meaningful insights into critical success factors. In turn, firms would need to greatly rely on the full commitment of its internal stakeholders in defining and improving the organisational understanding on multi-goals key performance drivers (Webb, 2004). According to Earley (1986) as cited by Webb (2004), providing knowledge on how to manage failures by virtue of accomplishing successful tasks would reinforce firm's managerial performance driving goal commitments on strategic orientations on growth.

Although MY-SMEs continue to be provided government-linked direct support which can significantly lower the chances of business failures (Gourinchas et al, 2020), notions of 'deep-learning' on policymaking to enhance capacity of the firm to capture monetary and branding reputation or material/immaterial 'value capture' (Lepak et al, 2007) for business continuity and sustainability is of utmost importance to MY-SMEs as well. Nevertheless, the firm's attribute and size would play a key role in deciding its strategic posture on growth (Yeboah, 2015). In turn, these challenges must be addressed specifically based on the need of these firms (Lohana et al, 2018).

Various scholars postulated the use of denominations on assets, market share and profits as growth indicators for business performance, however, Delmar et al (2003) argued that multiple growth indicators should be considered instead. This led to the following key variables driving influence on growth frontiers for small firms, which include amongst others: (a) effectiveness on deployment of human capital and utilisation of resources (Davidsson et al, 2010; Levratto et al, 2010), and (b) strong motivation on strategic posture and management of internal stakeholders (Scott & Bruce, 1987, Storey, 1994).

However, a cause for concern has risen pertaining to implications of the novelty of external disruptions triggering some SME owner-managers to decide on leaving the business. According to Amankwah-Amoah et al (2020), more attention must be given on the contextual implications of knowledge and resources which would allow firms to re-emerge or regenerate decisions on plateauing-growth orientations. This would instigate firm to level its

‘preparedness’ to adapt and scale-up their business models when faced with extreme and indeterminate external disruptions. Conversely, in order to pursue growth and positive momentum, MY-SMEs must foster effective *risk mitigation* and value capture in tandem with seeking the prospect of government rescue programmes to ensure sustainability of its operations (Eric & Thomas, 2020).

### 2.2.2.2 Managing environmental turbulence

According to Kipley & Lewis (2009a), environmental turbulence is defined by factors concerning; (i) level of strategic financial resources or capital investment, (ii) indeterminate prevalence of environmental change, (iii) novelty of external disruptions, and (iv) the recurring cycles of disruptive changes.

Whilst Ansoff et al (2004) categorised five distinct environmental turbulence levels (Table 2.1) in which SMEs compete for growth which include: (1) ‘Stable/Repetitive’ – whereby, the implication of change and timeline remains similar with extrapolative outlook on strategic planning remaining feasible, (2) ‘Expanding’ – visible and predictable incremental change in which extrapolative planning initiatives are sufficient, (3) ‘Changing’ – involving rapid changes albeit still incremental and predictable, comparable response is viable, (4) ‘Discontinuous’ – with rate and rapidity of change being uncertain, firms are compelled to formulate strategy orientations with a new set of rules, and (5) ‘Surpriseful’ – whereby, discontinuous and indeterminate rate of extreme change occurring without notice and visibility, rendering firm’s flexibility and openness in approaching innovation as the most effective solution for reform.

Table 2.1: Environment turbulence levels faced by SMEs

Predictability Changeability	Environmental turbulence	Stable/Repetitive	Expanding	Changing	Discontinuous	Surpriseful
	Rate of change	-	-	Planned Obsolescence	<i>Unplanned Obsolescence</i>	<i>Discontinuous Rate of change</i>
	Complexity	National Economic	-	Regional Technological	-	<i>Global Socio-political</i>
	Familiarity of events	Familiar	Extrapolate	-	<i>Discontinuous Familiar</i>	<i>Discontinuous Novel</i>
	Rapidity of change	Slower than response	-	Comparable to response	-	<i>Faster than response</i>
	Visibility of future	Recurring	Forecastable	Predictable	<i>Partially Predictable</i>	<i>Unpredictable surprises</i>
Turbulence level		1	2	3	4	5

Source: Ansoff and McDonnel (1990)

In context of this study, MY-SMEs facing a rapid departure of change disruptions from one level to another signify a state of ‘shift in turbulence’ (Kipley & Lewis, 2009a). Thus, to continue the business and firm’s survival, owner-managers are now subjected to change that is faster than the firm’s response. This entail deviations from traditional methods in which MY-SMEs formulate and implement their strategy via a more holistic strategic regeneration plan.

Firms competing for sustainability in the uncertainty of growth in increasingly turbulent business environment are highly susceptible to business attrition and decimation. Ansoff et al (1976) coined the strategic success paradigm for firms to cope with environmental turbulence which constitutes a nexus of order for organisational success. The dynamics of the firm’s *aggressive strategic posture* must align with the *environmental turbulence* levels in which it operates in tandem with *management capability* to ensure optimal organisational responsiveness.

This paradigm is not a ‘magic cure’ that will turn the prevailing FO into positive channels for optimal strategic choices but contributes to defining a strategic shift on the firm’s stance on business continuity via regeneration. Table 2.2 describes the adapted strategic orientations for firms to deal with contextual implications to growth with business context and management responsiveness based on the articulated levels of environmental turbulence.

Table 2.2: Paradigm on Strategic Orientations

<b>Environmental Turbulence</b>	<b>Level 1 Repetitive</b>	<b>Level 2 Expanding</b>	<b>Level 3 Changing</b>	<b>Level 4 Discontinuous</b>	<b>Level 5 Surpriseful</b>
<b>Contextual Implications on Growth</b>	Reactionary Predispositions	Reactive Incremental	Pre-emptive Incremental	Innovative Discontinuous	Radical Discontinuous
<i>Firm’s response:</i>	<i>Based on precedents</i>	<i>Based on experience</i>	<i>Based on extrapolation</i>	<i>Based on expected futures</i>	<i>Based on creativity</i>
<b>Business Context and Management Responsiveness</b>	Safeguarding Precedent	Operational Efficiency	Developing Market	Strategic Shift Environment	Ambidextrous Regeneration
<i>Firm’s response:</i>	<i>Driven</i>	<i>Driven</i>	<i>Driven</i>	<i>Driven</i>	<i>Seeks to create new environment</i>

Source: Adapted from Ansoff et al (2004)

On the contrary, the absence of paradigm shift or change in strategic assumptions would spur unsolicited strategic misalignment of internal processes and resources, particularly when the firm is unable to effectively initiate response to the disruptive external change fast enough. This would entail strategy making and SDM processes in SME firms to go ‘off-tangent’ to

requirements for strategic options considerations and continued misalignment would ultimately render the firm to be susceptible to extreme failures (Heracleous & Werres, 2016).

In this study, the contextual implications of prevalence on growth as depicted in Table 2.3 is the accomplishment of growth orientations via ‘*policymaking*’, ‘*value capture*’ and ‘*open innovation*’ towards accelerating gains, stabilising regeneration, or sustaining maturity of the firm. In fact the pertinent implications to the firm would highly likely increase the chance of sustainable growth or business continuity amidst the prevalent VUCA environment.

Table 2.3: Prevalence of growth orientations

Prevalence of growth orientations	Pertinent implications to SMEs			References and key influence
	<i>Accelerating gains</i>	<i>Stabilising regeneration</i>	<i>Sustaining maturity</i>	
<b>(A) Deep learning (policymaking)</b>	Short-term proponents	Mid-term proponents	Long-term proponents	Amankwah-Amoah et al (2020)
<b>(B) Value capture</b>	Business development	Marketing	Sales & Revenue	Lepak et al (2007)
<b>(C) Open innovation</b>	Explore opportunities	Extract value propositions	Exploit dynamic capability	Chesbrough (2003); Chesbrough et al (2014)

Source: Developed by researcher

Furthermore, with regards to the prevalence of growth frontiers during crisis, from extant literature on the multitude measure of firm growth, Delmar et al (2003) identified key patterns on firm growth pertinent to implications on MY-SMEs as well. The main categories of growth which plays a significant role in determining the prevalence of growth orientations are (a) *absolute* growth orientations on resources, employment, and sales revenue, and (b) *relative* growth orientations on resources, employment, and sales revenue. Due to the irregularity of growth over time the criteria of *absolute* and *relative* are useful to underpin the importance of size and maturity of firms. In the case of MY-SMEs in managing discontinuous change, growth orientations shall be implying notions on accelerating gains and stabilising regeneration *relative* to its state of reform. This follows that the fundamentals of firm growth are multi-dimensional and a uniquely different phenomenon for each individual firm (Delmar et al, 2003). Therefore no single-method approach to ascertain strategic posture for firm growth and maturity can deliver effective strategy orientations for the firm. In fact it should be a *continually iterative process*.

Additionally, Heracleous & Werres (2016) suggested for firms to avoid unexpected consequences of highly risky strategic actions, firms must be mindful of its external environment, strategic competencies, and organisational commitment to evolve or regenerate. Empirical findings on internal organisational factors such as people, culture, structure and

processes corroborate with reliability of strategic decisions and effectiveness of strategic options to be prime contributors to success. This is also true because firms having limited resources are likely bounded to create dependence in which strategic choices must be specifically ‘conditioned’ to reduce dependency on certain resources and to maintain independence over others (Gandia & Gardet, 2019).

In the context of this study, dependence may arise due to the nature of additional or novel resources in the form of financial or technological modules the firm must acquire via open innovation nexuses (Gardet & Fraiha 2012). Open innovation, in context of MY-SMEs involves absorptive capacity of the firm specific to knowledge and competency inflows and outflows for effective transformation and change management (Chesbrough, 2003; Chesbrough et al., 2014). In this case, the process of acquiring absorptive capacity of the firm involve active attempts on: (a) recognition of valuable external insights and information which would benefit the firm (*or scanning the periphery*), (b) assimilation of new knowledge and information through transformative analytics (*or transforming ideations into actions*), and (c) implementing the newly acquired knowledge or insights to generate quantum advantage (*or value creation*) (Lane et al, 2006).

According to Suh & Lee (2018), owner-managers must engage with key stakeholder modules within the business ecosystem in SDM processes in lieu of creating sustainable value capture. In practice and context of this study, this involves the strategic management of firm’s internal decision-making process itself to foster flexibility and adaptability to cope with inconsistent external environments. In retrospect, these past findings are consistent with strategic management impetus to *strategic regeneration* (hereafter, “SR”) of MY-SMEs which highlights the crucial role of managerial ‘agency’ (*or intervention actions to produce desirable strategic outcomes*) on organisational and business reform.

### **2.2.3 Business continuity and the firm’s agency to reform**

#### **2.2.3.1 Organisational configuration**

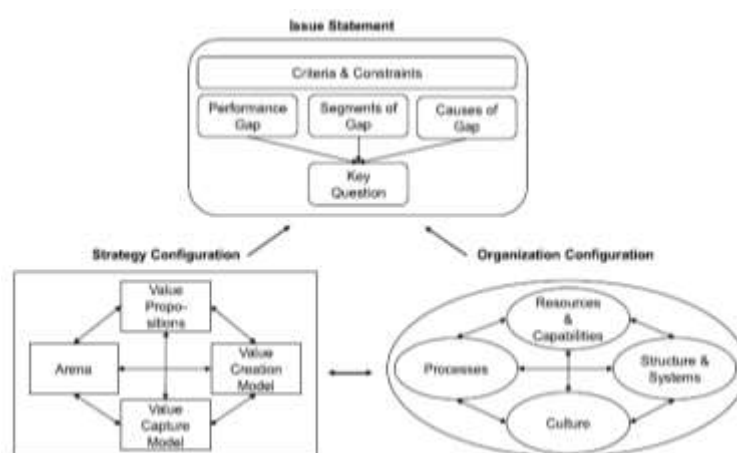
From a multiple-perspective approach on strategy in the current VUCA world, businesses continue to also dwell in crucial activities to discover the best possible strategic orientations to cater for the prevailing era of 4<sup>th</sup> Industrial Revolution in addition to managing prevailing and aforementioned crisis. Nevertheless, only by innovating new ways to attend to human-centric needs of the future (Schwab, 2016), can SMEs truly unleash its strength to make quantum leaps

and beyond. Particularly, the impact of the current growth uncertainties and market volatilities experienced by MY-SMEs has caused major recalibration of organisational competencies in firms especially regarding strategic issues exploration.

Indeed, new approaches to strategy making enables businesses to organise ideas and pathways leading to strategic options. For instance, Baaij & Reinmoeller (2018) introduced the concise mapping method of determining the most effective strategy which allow firms to anticipate roadblocks to strategic change with efficient operational frontiers on strategic orientations. The strength of mapping method amongst others, is on the visualisation of decision frontiers with critical feedback loops to ensure effective value capture from derived strategic choices.

According to Baaij et al (2007), highly effective strategic analytics particularly during crisis must incorporate the synthesis of various theoretical perspectives. Figure 2.2 depicts the incorporation of structural and dynamic perspectives of decision imperatives in strategic issues exploration to sustain business performance when dealing with environmental turbulence and volatile markets. ‘Issue Statement’ concerns the future problems and opportunities presented to the firm inflicted with crisis or need for ‘agency’ to transform or reform. ‘Strategy Configuration’ centres around the strategic planning initiatives to define the strategic posture the firm must consider. Whereas ‘Organisation Configuration’ accounts for the ramifications of ‘strategic innovation’ shifts with internal context to the firm and underlying FO. In context of this research, three major standpoints of strategic management, strategic foresight and strategic innovation were taken into considerations as the fundamental pillar in corroboration of Baaij & Reinmoeller’ postulation.

Figure 2.2: Strategic issues exploration model based on structural and dynamic perspectives of the firm’s decision imperatives.



Source: Baaij & Reinmoeller (2018)

Besides, the rising levels of environmental change and uncertainty necessitates empirical research into *bricolages* of theoretical perspectives on management sciences to offer effective guidance on useful practices for SME organisations to act upon (Baaij et al., 2007). With this adoption of bricolage in strategy-making practices, firms can foster deeper understanding and clarity on organisational processes and capability innovation impetuses to establish competitive advantages or business excellence (Eisenhardt & Martin, 2000) in hyper-complex and intricate crisis situations.

Nonetheless, SMEs continue to struggle when making adjustment to strategy orientations, partly due to the lack of novel approach from past research on SMEs. Consecutively, most strategy-making techniques and approaches are typically tailored for large corporations (Kipley & Lewis, 2009a; 2009b). With limitations of critical mass, budget constraints, scarcity of strategic resources and attributed misalignment of management capabilities in SMEs, the need for a more ‘useful’ and adaptable approach on strategy for SMEs continue to persist.

According to Ansoff (2007) as cited by Gianos (2013), the essential balancing of external and environmental influence on strategy and internal fit with business resources is crucial towards the development of firm’s effective strategic postures. Ansoff’s recommendation on strategy development comes with strategic foresight on strategic positioning of actions and firm’s agency to achieve its prescribed goals and objectives (Gianos, 2013). On such and given instances, the organisational configuration associated with FO corresponds to owner-manager’s abilities to initiate effective transformation and efficient management of resources via exploring and exploiting strategic options.

#### [2.2.3.2 Strategic Orientation, Entrepreneurial Orientation & Issues Exploration](#)

The extant literature suggested that strategic orientation has direct relationships with firm performance and is subjected to the firm’s actions-oriented approach on organisational learning orientation (LO), entrepreneurial orientation (EO) and market orientation (MO) (Hakala, 2011; Pett et al., 2019). However, in dealing with external environmental turbulence and uncertainties, conventional strategic orientation approaches lack the holistic integration of SDM proponents on strategy paradigms and future-preparedness. In context of this study, strategic orientation involves the firm’s implementation of key strategic initiatives with innovation and foresight frontiers with quantum procedures and direction to ensure continuous sustainability of the business or firm’s performance. Entrepreneurial orientation (hereafter, “EO”) on the other hand, are central in driving firm performance and business model innovations which involve key

attributes of its owner-managers associated with (i) venturesome risk preferences, (ii) innovativeness and (iii) proactiveness (Putniņš & Sauka, 2020; Asemokha et al., 2019). Whilst past researchers continue to debate on the conceptualisation of EO at the firm level, the researcher is of the opinion that EO is a critical proponent of effective and efficient strategy implementation and performance corollaries particularly in ‘cultural disposition’ influenced MY-SMEs (Zainol, 2013), and a vital trait for the individual level owner-managers by virtue of its relative entrepreneurial dimensions emphasis on decision-making autonomy, competitive assertiveness, innovativeness, proactiveness, and risk taking (McKenny et al, 2018).

Asemokha et al (2019) postulated that in dealing with novel crisis and strategic issues, EO has a positive and significant implications on SME firms’ business model innovation. This revealed strong potential and pertinent implications of policymaking and strategic management practices towards the firm’s strategic orientation (hereafter, “SO”) which suggested that the firm’s initial reformation (or transformational) strategic choices may not need to be perfectly effective, instead, it needs to be dynamic and revised according to the changing business environments.

Conversely, and according to Beliaeva et al (2020), the key to effectively developing explorative SOs would rely upon the stability of economic crisis and prevailing external environments. Their posited empirical findings based on Russian SMEs during the period of economic crisis in 2015–2016, indicated that EO greatly influences the strategy engagements with effective management of financial capitals of the crisis-afflicted firm. Besides, EO implicitly contributes to the development of absorptive capacity of the firm via organisational learning orientation (LO) and enhancing competencies to deal with transformational environments and change (Wahyuni & Sara, 2020).

Despite most SME firms and its owner-managers exhibiting ‘defensive’ or ‘reactive’ dispositions on the prevalence of growth propositions during crisis, empirical evidence suggested that ‘open innovation’ approach in managing transformation or change adopted by some firms was instrumental towards successful SOs for sustainability (Kumar et al., 2012).

Ansoff et al., (2004) defined that ‘strategic issues’ have direct and important repercussions on the SOs of the firm. Hence, a ‘real-time’ management of rapidly evolving environmental disruptions must take place for firms to consistently meet its planned objectives. Strategic issues in context of this study include the internal and external ascending future problems and future opportunities which may inhibit and/or encourage growth and maturity. MY-SMEs firms

on the other hand, require a robust, simple yet highly effective response scheme to comply with SO and issues exploration that do not interfere with existing structures and systems.

According to Pasanen (2011), SMEs (and to some extent large firms too) tend to prefer using generic ‘business strategies’ and ‘mission & vision statement’ as the most common strategic management tool when striving to make headways during tough times. Conversely, ‘benchmarking’ and ‘balanced scorecard’ have been avoided altogether by some firms due to the intricate nature of these methods when employed. Clearly, the lack of knowledge and ‘usefulness’ on the applicability of relevant methods for SO and strategic issues exploration in SMEs are evident.

Given that MY-SMEs are faced with tangible key barriers to determining SOs to growth which include amongst others: (i) lack in numbers of firms with evidence of successful transformation or innovation performance outcome (Abd Aziz & Samad, 2016), (ii) low rate of acceptance on innovation orientations for growth frontiers due to the firm’s age and size – whereby, younger and bigger firms tend to be more proactive and aggressive as compared to the more matured and smaller firms which are more meticulous in planning on transformation (Higon, 2012; Mabenge et al., 2020). In this context and relevant to this study, innovation is defined as a shift in organisational processes and decision-making paradigm leading to value creation in the form of fostering business continuity or a new business model implementation (Madrid-Guijarro et al, 2013).

Indeed exploring and assimilating innovation orientations via ‘transforming’ the firm and business model could foster unique advantage for the firm. In fact, three major attribute of transformation capability: (a) idea conception and employing structural perspectives, (b) granularity of leadership motivation and decisions, and (c) organisational competency; contributes to increasing the efficacies of SOs and performance of the firm in general (Saunila, 2014).

According to Madrid-Guijarro et al (2013), empirical evidence gathered from manufacturing SMEs demonstrated that the ultimate survival of firms during periods of growth or downturn relies on the degree of innovation orientations as an outcome of regeneration strategy. This would entail that performing incremental or radical innovation helps to foster better agency in managing resources and enhances the firm’s position on value creation and financial performance throughout its business cycles.

On the contrary, Udriyah et al (2019) posited that MY-SMEs lagged innovation orientations due to low absorptive capacity and lack of resourcefulness to acquire new information and technological advancements. This gave rise to an increased need to bridge the knowledge gaps in terms of development of crucial reform and revitalisation of SOs during crisis amongst adversely affected SME firm clusters (Cerchione et al., 2016). Moreover, absorptive capacity and improved focus on internal processes are vital to stimulate the processes of transformation via innovation capability (Yesil et al., 2013; Lagunes et al., 2016) for SME firms to survive in today's highly VUCA business environment.

Lagunes et al (2016) postulated multiple dimensions of determining the level of absorptive capacity in manufacturing SMEs. This included key decisions on the management of internal resources and considerations on organisational configurations. In context of this study, the level of absorptive capacity defines the state of 'agency to reform' in relations to the pertinent implications to the firm in (i) exploring benefits, (ii) developing plan and (iii) executing reform. All of which are crucial determinants for evolving strategic choices for firms to enhance innovation frontiers and capability.

The agency to effectively manage resources corroborates Gandia & Gardet (2019) findings on external sources of firms' dependence, which articulated that innovation for reform is vital for firm to enhance or improve value capture and economic growth by implementing sector-oriented strategy frontiers. However, scarcity of available resources inhibits MY-SMEs ability in particular, to effectively utilise tangible resources to innovate. This entail SME firms to further expound the need to access additional resources in various ways via internalising tangible sources of required resource via 'open innovation' approach or generating new policies to acquire vital resources for reform in a highly disruptive environment (Liu & Yang, 2019).

Conversely, roots of achieving stability and continuity via conventional standpoints on strategy-making implications are under great threat when firms operate in dynamic markets and especially in highly turbulence environments. This follows that associated planning and the process of developing SOs must incorporate a parallel view of the plausible future in addition to managing the current state of affairs (Lindsay, 2015). Furthermore, the management of uncertainty entails immensely different processes to identify solutions to strategic issues exploration activities. Hence, in order to avoid distortions to effective decision-making corollaries and agency to reform, owner-managers need to establish and institutionalise a structured methodology to define strategic options based on the firm's motivation on prevalence of growth and maturity frontiers.

With particular focus on MY-SMEs, according to Lim & Teoh (2021) efficacies of strategic planning and decision management is positively correlated with firm's success. Besides, strategic planning to create desired outcome on SOs for the firm is vital for growth, particularly when conducting peripheral and environmental scanning for strategic issues explorations (Cheng et al., 2014). Additionally, Halim et al (2017) posited that as macroeconomics play a significant role in enabling and driving strategic thrusts for business continuity and sustainability during prevalent crises, multiple-factors considerations on managing resources is critical.

In context of this research, the focus on leveling, allocating and forecasting of integrated strategic capitals and resources were implied to facilitate effective crisis interventions. These strategic resources are financial, manufactured, intellectual, human, social and natural capitals derived from the essential constituents of Six Capitals<sup>17</sup> framework (hereafter "6C") typically practiced by larger corporations in generating annual financial reports.

Moreover, in relations to establishing strategic choices, transforming organisational configurations and decision paradigms contribute to significant improvement of performance and lowers operational costs (Mustafa et al., 2019). This in turn would allow owner-managers in SME firms to undertake systematic considerations of key risks in order of importance to SMEs which include: (a) market risk, (b) financial risk and (c) economic risk, with a more integrated approach in strategic planning and decision-making process (Hudáková & Dvorský, 2018).

#### *2.2.3.3 Strategic posture and the exploratory way forward*

In context of this study, strategic posture of the firm during crisis takes into serious account the owner-manager's instantaneous position to respond to market volatility and long-term approach to effectively manage the business capability and resources. Madrid-Guijarro et al (2013) posited that novelty of innovation helps foster new opportunities and increases the firm's competitiveness and new market penetration. This further implied the positive impact of innovation is advantageous throughout the business cycles of growth and particularly during a period of downturn. Nonetheless, high levels of risks associated with novelty of solutions via

---

<sup>17</sup> Source: <https://integratedreporting.org/what-the-tool-for-better-reporting/get-to-grips-with-the-six-capitals/> [Accessed 12/02/2021].

radical innovation orientation entails higher level of resources are required for attainment of higher strategic values (Wallace & Barnard, 2018; Martinsuo, 2019). Radical innovations involving novel solutions and technologies are essential for value capture particularly during market volatilities (O'Connor & McDermott, 2004).

Highly driven MY-SMEs firms are continually upgrading business and operational efficacies in managing its value chains, despite facing unfavourable challenges and crises (Yeng et al., 2018). However, despite aided support from government initiatives many SME firms continue to falter on self-sustenance and crisis-preparedness (Saleh & Ndubisi, 2006). From anecdotal evidence, the lack of proactive state of agency to reform and incapacity due to suboptimal attribute of FO persists in respective firms when having to deal with prevalent crisis.

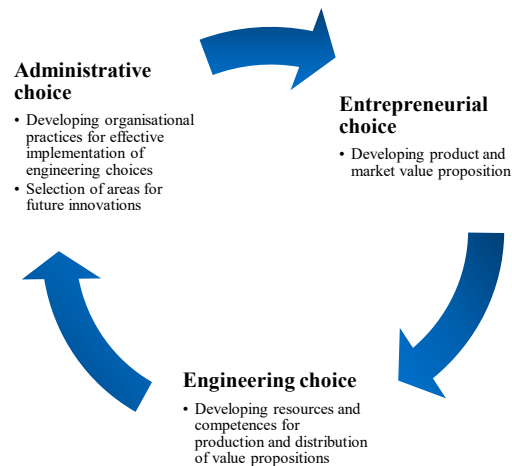
According to Bodlaj & Čater (2019), market turbulence causes a direct impact on SMEs' innovation orientation and frontiers. This entails owner-managers must place urgency of critical actions to innovate or transform organisational processes and configurations as top priority to ensure the firm's survival and growth. Nonetheless, SME firms' stances on innovation during crises varies from either: (i) 'opportunity driven' high impetus during growth cycles as compared to economic downturn (Freeman et al., 1982; Freeman, 1987) – subjected to pessimistic decision outcomes on strategic gains during disruptive environmental turbulence, or (ii) 'necessity driven' for survival subjugated by reactivity or lack of entrepreneurial innovation corollary during growth or maturity stages (Hashi & Krasniqi, 2011; Caiazza et al., 2020) – whereby, deliberated owner-managers' decisions on value capture using only firm's tangible and available resources prevails.

Kafchehi et al (2016) on the other hand, postulated firms with more aggressive business strategies have much higher affinity to radical innovation orientations and vice versa. This follows from Miles et al (1978) conception of four strategy typology based on strategic postures of firms and adaptation cycle on environmental turbulence: (1) Prospector – highly flexible and continually innovating for first-mover advantage; (2) Analyzer – focusing on developing maturity and operational efficiency in order to manage calculated risks; (3) Defender – focusing on lean operations to reduce costs and sustain profitability; and (4) Reactor – persistently lagging on innovative frontiers and typically reactive only on compelling situations.

Additionally, this entail firms to also undergo perpetual adaptation cycle of 'entrepreneurial', 'engineering' and 'administrative' decision frontiers aiming at exploration and exploitation structured processes attributed to specific strategic postures (Miles & Snow, 1978; Miles et al.,

1978) and support its agency. Figure 2.3 depicts this continuous adaptation cycles for exploration & exploitation of firm's strategic postures.

Figure 2.3: Adaptation cycles for exploration & exploitation of firm's strategic postures



*Source: Adapted from Miles et al (1978)*

From a perspective of business model innovation (BMI), studies conducted by Cucculelli & Peruzzi (2020) on Italian manufacturing firms posited that post-crisis firm survival is directly correlated to business model changes. They found that the empirical implications transforming organisational configurations by reducing vertical integration of its supply chain and increasing investments in intangible resources greatly reduces complexity in managing VUCA environments for the firm.

However, as MY-SME firms tend to replicate past successes and experiences, there is a tendency to induce lack of learning which may amplify 'over-simplification' on firm's preparedness for unprecedented 'Discontinuous' or even 'Surprise' future turbulences (as described in Table 2.1). Nevertheless, BMI functions as a good turnaround strategy in a declining cycle of firm's growth (Shahri & Sarvestani, 2020). Likewise, according to Ammar & Chereau (2018), establishing value creation by virtue of differentiated business model components is more appropriate than exclusively adopting Porter's (1980) generic competitive strategic choices.

Conversely, Sollosy et al (2019) postulated that strong correlations between firm's: (i) exploration and exploitation, (ii) radical and incremental innovation orientations, and (iii) strategic transformation alignment with Miles & Snow's strategy classifications would greatly increase business performance. Nonetheless, it would be critical for owner-managers to

institutionalise consistent practice of strategic planning and SDM for continuous improvements and sustainability of its agency to reform.

Whilst many past research focuses on the broader scope of strategic management and strategic planning tools applications to aid decision-making imperatives in SMEs, in context of this study a general contrast on the most prominent and widely used or talked about tool for decision-making was considered.

According to Qehaja & Kutllovci (2020) amongst the collection of decision support tools and techniques accustomed to SME firms and widely used to initiate discourse on strategic postures are: (a) the strengths, weaknesses, opportunities and threats SWOT analysis (Weihrich, 1982) for situational analysis, and (b) Vision & Mission statements to compel performance improvements (Sufi & Lyons, 2003). Alternatively, Borocki et al (2019) posited a more fitting use of modified strategic analytics on industry forces and the prevalence of growth orientations to investigate basic dimensions of the firm and its external environment for strategic posture orientations.

Moreover, in context of this study, pertinent implications of firm's agency comprise key elements of exploring benefits, developing plan, and implementing the strategic regeneration plan. Table 2.4 describes the firm's motivation on agency for reform. Relatively, the contextual significance of a successful strategic posture for MY-SMEs are derived mainly via the formalised establishment of '*value creation*', '*transformation*' and '*managing resources*' imperatives.

Table 2.4: SMEs motivation on agency for reform

Agency to reform	Pertinent implications to SMEs			References and key influence
	<i>Exploring benefits</i>	<i>Developing plan</i>	<i>Executing reform</i>	
<b>(A) Value creation</b>	Shareholders	Stakeholders	Industry sectors	Lepak et al (2007)
<b>(B) Transformation</b>	Incremental	Radical	Innovation	Madrid et al (2009;2013)
<b>(C) Managing Resources</b>	Allocating	Leveling	Forecasting	Gandia & Gardet (2019)

Source: Developed by researcher

Value creation in context of VUCA business environment signifies the innovation or reconfiguration of assets, skills and internal resources to generate tangible values (e.g., novel services and products) to capture markets and growth (Lepak et al., 2007). Vital for business

continuity, Lepak et al (2007) posited the process and mechanism for value creation involve the use and exchange of firm's tangible value propositions which include amongst others: (i) business reconfiguration or restructuring, (ii) absorptive capacity or knowledge and competency innovations and (iii) capital incentives and organisational motivation.

These factors also correspond to the study's perspective of managing innovation frontiers under the direct influence of FO. In particular, the researcher's expounded area of search for conception and perpetuation of a systematic decision-making strategy for business continuity that takes into considerations the firm's structure & policies, preparedness to evolve and inertia for sustainable response to environmental turbulence.

This follows in the case of business failures, amongst the key root cause associated to firm's attribute included the firm's configuration, maturity levels, management orientation, tangible resources and capability management factors (Mellahi & Wilkinson, 2004; Kücher et al., 2020). Moreover, according to Amankwah-Amoah et al (2020) the accumulation of firm's resources during expansion or growth cycles may impose unwarranted vulnerabilities in terms of misallocation of highly valuable or limited resources. Inefficiency and misalignment of distinctive capability and resources may allow business erosion to fester, therefore, allocating and leveling tangible resources for business reform is vital to ensure long-term success and sustainability (Eisenhardt & Martin, 2000). In this study, "resource" implies the broad interpretation of integrated capitals utilisation in creating and sustaining competitive advantage (Lavie, 2006) and sustainable regeneration of MY-SMEs.

Besides the fact that some firms perform downsizing of resources to stabilise growth during periods of uncertainty (McKinley et al., 2000), risks leading to potential collapse or failure are associated with SME firm's archetypical behaviours: (a) the lack of capability to process signals from environmental threats, and (b) lack of responsiveness to environmental disruptions (Heine & Rindfleisch, 2013). However, in context of MY-SMEs, Palanimally et al (2020) postulated that continuous improvements on productivity management and capitals management increases the growth performance on sales and revenue for the firm. This entails the relevance of integrated capitals management perspective in correlations with managing of resources ascribed to this study.

Nonetheless, in order to successfully retain the firm's strategic posture amidst turbulent environments, owner-managers must compensate the firm's constraints and agency to reform via shifting the organisational paradigm (Kipley & Lewis, 2009a). In fact, this paradigmatic shift

is directly associated with Ansoff's strategic success paradigm (Ansoff et al., 1976) which articulated the optimal performance of the firms under immense environmental turbulence to rely on aggressiveness and responsiveness of SOs.

Kipley & Lewis (2009a; 2009b) posited that in order to succeed with SOs for regeneration, firms must adapt via: (1) *strategic transformation* – by instigating 'preparedness' and 'ambidexterity' by virtue of making sense of the environment and anticipating future uncertainties (Ansoff et al., 1976; 2004), (2) *capabilities transformation* – developing dynamic capability of the firm to sense changes, seize opportunities and reconfigure internal & external competency frontiers (Teece et al., 1997), (3) *knowledge competency transformation* – absorptive capacity in highly dynamic environment and markets (Cohen & Levinthal, 1990; Senivongse et al., 2019), and (4) *managerial capacity transformation* – via proliferating strategic discourse on making strategy and SDM for crucial outcomes using theory and practice (Balogun et al., 2014). According to (Johnson et al., 2007) this entails the consolidation of three main domains of practice: (a) actual activities (or episodic domain), (b) strategic shift in organisational domain, and (c) institutional domain with strategic management routines which include strategic planning.

In turn, establishing the exploratory way forward with rooted ambidexterity in owner-managers' EO, would enhance the firm's capacity to adapt to disruptions. This fosters the strategic responsiveness required to create resilience in the strategic posture aims for the firm (Andersen et al., 2019).

#### **2.2.4 Firm orientations & mitigating concerns**

In context of this study, FO is significant to explicitly navigate the perspectives of SME firm's owner-managers as key barriers faced by MY-SMEs preventing them to effectively manage external environmental turbulence and uncertainty from the extant literature include: (a) *the nature of business* – i.e. the business model of global vs regional domestic firms defining the SO implications towards strategic regeneration of the business (Asemokha et al., 2019; Expósito & Sanchis-Llopis, 2019), (b) *resource availability* – i.e. cost control measures limited by financial, human resources and time-boundedness amplified by the investment of personal resources (and capital) of the owner which places intense pressure on all financial business and competitive advantage decisions (Chirico & Salvato, 2016; Eniola, 2018; Wong et al., 2018),

and (c) *management competency or traits* – influence on financial decision, management actions as a direct consequence of personal motives the owner-managers (Wong et al., 2018).

Nevertheless, from the context of the firm, there are secondary aspects to the issue of both prevalence of growth frontiers and agency to reform barriers and drivers. This comprises the perspectives from which strategic postures of the firm requires crucial intervention. The FO impose firms to recalibrate crucial stance towards managing strategic issues exploration and strategic options to intervene business disruptions. Communications, engagement, and stakeholders, including policy formulation and implementations are amongst the key vital components to mitigate firm's internal conflicts.

Expósito & Sanchis-Llopis (2019) provided empirical findings that showed significant advantage to business outcomes of firms by virtue of higher efficacies in costs management with institutionalised innovations. This follows from an innovation perspective of processes and organisational structure; formally institutionalising innovation frontiers help improve both financial and operational performance simultaneously. Nonetheless, making the right and 'useful' innovation decision and frontiers are crucial in context of MY-SMEs.

Given that some SMEs may not explicitly formulate strategy per se, orientations of goals and strategic postures determine and necessitate adjustments to its business model. According to Heikkilä et al (2018), despite their limited capabilities and resources, distinct paths to transforming or business model innovations (BMI) in SMEs are directly associated with three main strategic goals: (1) *restarting with a new business* – by means of total reinvention and recalibration of existing organisational orientation, business nature, products and/or services offerings, (2) *scaling up growth* – involving significant revamp of existing organisational structure and open innovation processes in developing new and enhanced value propositions and value capture, and (3) *scaling up profitability* – with specific operational improvements upstream and downstream of the business in relations to maximising resource utilisation and minimising costs.

In the case of mitigating issues and risks associated with highly turbulent markets and future uncertainties, owner-managers of SME firms need to consider holistic considerations of multiple components of organisational capabilities (Collis, 1994) which include: (i) basic functionality to perform day-to-day operations, (ii) continuous improvements for improved performance and competency, (iii) resourcefulness to explore and exploit opportunities for growth and competitiveness, and (iv) 'meta-capability' or 'higher order' capabilities of the

organisation with dynamism in incorporated learning abilities. Ambrosini et al (2009) postulated first and second level of incremental and renewing capability of firms as combined dynamic capabilities, with the third level of regenerative dynamic capabilities to be vital for determining the way firms manages its resources.

In context of this study and on improving firm agility in managing crises, FO facilitates mitigation of issues and problems, thus allowing firms to demonstrate ‘strategic sensitivity’ towards anticipating future needs to foster business continuity for the firm and increases its ‘resourcefulness’ which is key for firms to overcome inherent challenges driven by internal and external environmental disruptions (Arbussa et al., 2017). Resourcefulness in this case is associated with establishing strategic resources and capabilities which are key enablers of resilience and performance in terms of revenue and profitability of the business in context (Pal et al., 2014).

According to Doz & Kosonen (2010), key inertia towards successfully transforming or renewing business model of the firm is ‘strategic agility’. They argued that by adopting and operationalising a series of meta-capabilities, owner-managers of firms would be able to determine the most critical action path for strategic regeneration of the business. Specifically, the most vital attribute for strategic agility is the combination of dynamic capability of the firm in dealing with corresponding firm’s SOs and strategic postures. This allows firms to stay ambidextrous whilst transforming and reinventing itself to adapt and continue to survive (Doz and Kosonen, 2010).

Being the sole person responsible for sustainability integration and management in the firm, the owner-managers’ role as ‘change agents’ is vital to drive business continuity (Kiesnere & Baumgartner, 2019). Furthermore, Madrid-Guijarro et al (2009) posited that the most significant limitations on a firm’s ability to manage growth related transformations are linked to significant barriers caused by: (a) associated high costs of change implications, (b) market volatility and scarcity of resources, and (b) risk potential and uncertainties. Whilst Yadav et al (2019) postulated the (i) lack of firm’s leadership commitment and engagements, (ii) lack of communication on strategic posture of the firm, and (iii) lack of resources as the most critical barriers, empirical findings indicated that costs associated with innovations have much greater impact on smaller firms. This entails critical focus on policymaking of managing resources and value creation to be vital for SMEs to ensure successful agency on SR.

Despite past scholarly works on open innovations were mostly focused on multinational corporations (MNC), Van de Vrande et al (2009) suggested from empirical evidence that SMEs are increasingly practicing open innovation activities. Although the findings conclude that manufacturing SMEs possess the strongest capacity for open innovation, from the perspective of this research, considerations on integrated resources management and growth barriers intervention are of utmost interest and importance. Consequently, highly motivated firms would pursue ambidexterity to fully utilise available resources, drawing upon both internal and external values and proponents to strategic options (Chesbrough, 2003; Senaratne & Wang, 2018).

Nonetheless, when dealing with change impetus, firm's strong agency on transforming centres around the owner-managers' traits and change management practices when adopting motivation or individual stances on SO and innovation orientations (Menkhoff et al., 2003). This was evident as owner-managers of SME firms continue to dwell on past successes and are resistive to change unless a major crisis evolves. Such complacency tends to further barricade exploration on strategic options and would render 'stagnating' firms exhibiting a lack of continuous efforts to adapt with ever-changing external environments (Wiesner et al., 2004) to be highly susceptible to harsh competition and disruptive business environments (Blumentritt, 2004; Nicholas et al., 2013). This entailed a need for this study to develop contextual awareness on the importance of FO based upon building measures and instructive efforts on crisis interventions and enable MY-SMEs owner-managers to benefit from strategic management tools and concepts as well as facilitating the process of sensemaking for useful strategic decisions.

***Conclusion #1: MY-SMEs need a concise, yet comprehensive and clear approach to SOs and strategy conception fostered by proactive SDM & strategy paradigms.***

## 2.3 Theoretical Perspectives of the Study

The key concept of interest in this study are considerations and interdependencies between resource-based view of strategic management theory and timing of strategy implementations with SO in relations to the firm's active lifecycle (Mugler, 2004) with contextually relevant and practical applications of futures studies.

Futures studies according to Dator (2019) involve continuously analysing ideas about the future and facilitating individuals and groups in formulating, implementing, and re-envisioning preferred future states. Hence, in order to be useful in creating a 'guiding vision', efforts to make novel ideas on transformation plausible and actionable must precede and be linked to strategic planning and effectiveness of forward-looking decision imperatives. This follows that actionable assumption of the future being either linear or cyclical, with critical impact considerations (Inayatullah, 2007) are most sought-after by business leaders who are under pressure from stakeholders to comply with their demands while ensuring survival of the business in increasingly complex and volatile markets.

Moreover, Miller et al (2008) suggested that on numerous accounts, strategic initiatives were unsuccessful because of factors related to the lack of clarity of direction and actions that are under leadership management and control. Radomska & Kozyra (2020) on the other hand, posited that awareness of strategy execution barriers and the interdependency of internal factors with series of interdependent actions impacts the strategic goals achievement.

On firm's ability to link long-term actions with SOs of entrepreneurial, market and learning capacity, Schweiger et al (2019) postulated that in order to achieve notable performance, organisational strategy-making processes must incorporate (a) *ability to monitor external changes*, (b) *absorptive capacity for innovation*, and (c) *assimilating preparedness with acquired knowledge and competency*.

Nonetheless, with the prevailing nature of suboptimal FO faced by the firm amidst continued struggles with prevalent challenges in managing growth uncertainties and market volatilities, it may incite owner-managers of adversely impacted organisations to pose the forthright question of whether the extensive construct of futures study is instantly beneficial. Furthermore, creating alternatives to effectively manage impending crisis and transform the future as postulated by Inayatullah (2008) involve explicitly meticulous planning with deep commitment to change imperatives (Fazey et al, 2018). Such commitments include amongst others: (a)

*acknowledging the state and stage of change impetus; (b) developing competency and change capability; and (c) identify and develop future strategic shifts and decision frontiers.*

Notably, the disruptive implication of unavoidable change imperatives on these respective SMEs' business transformations which typically adheres to legacy methods or approach would in turn, allow more radical changes to occur (Sharpe et al., 2016). Conversely, many past scholars have explored areas in managing radical change which led to this research being motivated by three major research standpoints of: (1) *strategic management (hereafter, "SM")*, (2) *strategic foresight (hereafter, "SF")*, and (3) *strategic innovation (hereafter, "SI")*.

### **2.3.1 Strategic Management (SM) standpoint**

#### **2.3.1.1 SM context and the implications of Strategic Planning**

The science of formulating, implementing and appraising cross-functional decisions to enable specific objectives achievements and improvements for business organisations typically involve strenuous coordination efforts and effective utilisation of resources (David, 2009; Sourkouhi et al., 2013). Respectively, Johnson et al (2008) suggested that strategy and strategic decisions are associated with organisational (a) long-term aims and future aspirations, (b) scope and focus of growth activities, (c) development of competitive advantage against market drivers and competitors, (d) management of resources and competence to yield new opportunities, and (e) development of stakeholders' values and maturity levels.

Affirmatively, the extant SM textbook manuals and publications offer business enterprises the pedagogy and tools on how to prepare for future events which covers steps to implement its strategic plan to achieve competitive advantage (Blatstein, 2012). However, in context of SMEs the tools and techniques are mostly subjected to the competency of users with lack of expertise or awareness of a more 'fitting' tool or framework, rendering ineffectiveness and misconceptions on the distinctive role of strategy making and strategic planning (Bellamy et al., 2019). For this reason as well, strategic planning is often confused with strategy formulation, as both activities occur at the same stage (David, 2009).

According to Rothaermel (2012), although some businesses may achieve competitive advantage and performs financially better without having specifically thorough strategic plans, it is essential to have the SM process in place to sustain it. Conversely, effectiveness in firms' strategic decision making is greatly improved by attaining a broader perspective of the business

and external environmental factors to create sustainable advantage with strategic planning (Johnson et al, 2008).

Subsequently, Bellamy et al (2019) argued that due to the disparate nature of organisational theory and empirical findings with reference to SMEs, the explicit implementation and effectiveness of accustomed strategy tool and techniques in SMEs are directly confronted with: (1) lack of applicability of corporate portfolio due to independence & nature of enterprise; (2) lack of opportunity to involve large scale projects & investments due to the small scale of business; (3) low propensity for extensive corporate planning and strategy development activities due to scarcity of resources; (4) lack of continuity and utilisation of available tools and frameworks except during initial conceptualisation; (5) lack of extensive planning horizons to deal with inability or inaptness to change rapidly, and (6) lack of understanding on complex and rigid tools available to SMEs. Consequently, these issues resonated with anecdotal evidence observed by the researcher prior to this study that the high cost of engaging the complex process of SM does not guarantee success. This is typically the main reason SMEs tend to overlook on the need to institutionalise strategy-making departments.

Conversely, scholars and managers alike revert to strategy and SM processes in a search for decisions for favourable outcomes on radical change, competitive advantage and establishing and achieving organisational goals (Balogun et al, 2014). Whilst the deconstructed form of strategic planning is employed by SMEs to 'make sense' of its business environment, development of a more proficient framework on strategy-making would generate a more dynamic understanding and useful applications of SM processes (Jarzabkowski & Kaplan, 2015). This allows organisations to be proactive to unfolding critical business situations.

Consecutively, and according to Köseoğlu & Parnell (2020), the study of SM domain had evolved from focusing on methodological issues in organisations to the long-range planning for organisational assessments on long term decision-making under uncertainty. This had also signified a major shift from early scholars' more focused research on market-orientation strategies for competitive advantage using cost leadership, differentiation and improving shareholders' value via adoption of generic strategy orientations as introduced by Porter (1980; 2008).

Acar & Özşahin (2018) posited in their study on correlations between SO of firms with key external drivers which included market and technology orientation, that managers are constrained in their efforts to strategically plan for the future due to the complexities and

uncertainties in today's business environments. They went on to suggest that technology oriented strategic shifts and organisational innovativeness are prevalent in firms that seek to improve growth and market performance.

Nonetheless, according to Woodside et al (2018), anomalies to strategy outcomes presented by unsuccessful firms in favourable business circumstances and successful firms in unfavourable business environment and circumstances raises greater interests to understand the usefulness of adapting complexity theory in modelling intricate strategy outcomes with SM. This follows that in order to modify environments with improvised strategic directions to rapidly evolve, the non-linear behaviour of complex organisations must place strong emphasis on building systems and reconfiguring the organisational leadership and processual structures (Anderson, 1999; Schneider & Somers, 2006).

Complexity theory in context of SMEs provides an understanding of how firms interact with its environment to grow and evolve in a turbulent environment. Despite attainment of past successes in managing growth in the absence of institutionalised SM practice, SMEs must develop strong competences and innovativeness in order to survive whilst maintaining a positive relationship with key stakeholders to the business (Basile et al., 2018).

This was further corroborated by Negulescu (2019), whereby, in a business environment characterised by complexities, difficulties faced in implementing strategy are attributed to firm's limitations on decision-making and performing deconstructed SM in dealing with (a) complexity of the organisational issues and its business environment, and (b) complexity of strategy orientations and firm's agency to reform. This also entailed that organisations must adapt and become flexible in order to optimally seek strategic options to resolve FO pertaining to structure, preparedness and inertia as described and in context of this study.

Kunc (2019) stipulated that combining management science and strategy making processes through strategic analytics would greatly facilitate the process of strategic decision making for firms at the terminal stage of decline. Citing Miller & Friesen (1984) and Hoy (2006), Kunc postulated two possibilities for firms to evolve through the four stages of a lifecycle of either birth, growth, maturity or decline by either: (a) *failing to respond the decline and face closure or bankruptcy*, or (b) *intervening the declining phase and regenerate*. Subsequently, in order to determine the strategic shifts and corollaries on regeneration intent, SM of firm's internal and external resources would ultimately provide the strategic choices of either: (a) a rigid response to nullify the adverse implications of their decline, or (b) innovate and transform the

business and the company. In fact, these ‘crisis tipping-point’ responses are vital to ascertain firms’ survival or demise.

Although there will be no surety that a sound formulated strategic plan would deliver immediate remedies, the conscious decision to accurately implement and evaluate strategy orientations by employing SM from early conception would greatly benefit SME firms. This follows and according Elbanna et al (2020a), the integrated practice of SM by adopting key and critical components of formulating, implementing and evaluating would help firms establish new insights and develop better understanding for solutions generation to prevalent complex situations. Moreover, as the performance of firms in context is a function of multitude of dimensions of SM itself, developing organisational competency in the practice of making strategy and strategic planning correlates positively with growth and maturity.

With a distinction that SM provide the avenue for effective implementation of strategy orientations, deriving strategy imperatives through repetitive and elaborate formulating processes of strategic planning allows organisations to become pro-active in managing crisis (John-Eke et al., 2020). This is mainly due to the fact that competent organisations would gain familiarity in circumnavigating impending crises or as it happens more efficiently. In turn, through properly institutionalising strategic planning, the operationalisation of value capture and stakeholder management in the changing environment allows the firm to apply its resources more sustainably to deliver accurate results.

Additionally, studies conducted on crisis-susceptible accommodations industry revealed significant positive outcomes to firm’s operational management with conception of crisis management planning in the strategy process (Karam, 2018). In turn, the articulated ambidextrous capacity had allowed managers of the business to think and plan effectively and strategically during the midst of crisis whilst increasing organisational capability to successfully manage crises. Correspondingly, Borocki et al (2019) posited that determinative strategic posture or position the company leadership would take in applying or investing strategic resources to foster the current and long-term market demands is the cornerstone to a solid and sustainable business strategy.

Through a quantitative study on European organisations by Ouakouak (2018), the increasingly dynamic and complex business environment derived three empirical observations on the fundamental role of SM: (1) strategic planning remains a key tool and strategic means to sustain competitive advantage and business continuity; (2) firm’s internal alignment of structure and

organisational preparedness increases the efficacies of resources deployment and management; and (3) the development of 'rational' and 'adaptive' characteristics in organisational capabilities is vital in order to achieve business excellence and improve stakeholders' value management leading to sustainable financial performance. In principle, it would be incredibly important for owner-managers of SMEs to recognise that the key outcome of strategic planning in organisations would be the fostered outcome of growth and maturity, and not the plaintext meaning of 'plan' itself.

Inevitably, on the employment of intricate multidimensional processes of strategic planning and strategy development, deliberate or emergent approaches to planning are practiced by most firms. Nevertheless, to determine which is most preferred or appropriate to the SME in context would depend on the level of competence and peripheral scanning abilities on external environments to identify rapidity of actions or need for agency to respond to growth uncertainties and market volatilities (Ghezzi et al., 2010). This follows that reinforcing the conception of strategy orientations with a SF on the ramifications of uncertain environment would allow owner-managers to expound planning deficiencies for the firm to make the necessary adjustments during the course and prevalence of transformation.

As cited by Ghezzi et al (2010), the value of 'learning by doing' approach (Cope & Watts, 2000; Christensen, 1997) rely on the fundamental learning from firms' past unsuccessful experiences or hindsight on strategy impetus that led to changes and improvements in organisational practice of SM. Conversely, from an operational perspective, the lack of formalised strategic intent or posture could render the apparently learned organisation imprudence. However, O'Regan & Ghobadian (2007) considered the formality of strategic planning useful in reducing or eliminating the barriers to strategy implementations but discounted the notions that there are significant differences to non-formal planning firms. This finding substantiated the informal nature of policymaking in SMEs, with potential insinuation that most formal strategic planning firms' places emphasise on the attributes of strategic planning rather than the causal outcomes to strategy.

In context of SMEs in Malaysia, Cheng et al (2013) research into the perennial debate on whether formal strategic planning is relevant, produced the general implication that most SMEs do have strategic planning in place which resembles the Wheelen & Hunger (2008) model of strategic planning involving four basic elements of (i) environmental scanning, (ii) strategy formulation, (iii) strategy implementation, and (iv) evaluation and control. Whilst most of their survey respondents indicated that environmental scanning is important, economic factors

which included revenue, costs, inflation etc. were the most vital to determine SME survival and strategy orientations. Although the findings are consistent with past research regarding the benefit of having environmental scanning in place, the lacunae of understanding on the impact of growth uncertainty and market volatilities on strategy orientations were not explored in relations to further substantiating the effectiveness strategy adaptation and implementations to deal with future threats and constraints as pointed out by Strandholm & Kumar (2003).

With the real world of business and organisations transformed due to shifting landscape and technological advancements, the need to better assume and understand continuous use of strategy processes and strategic management practices in organisations are critical for action and ‘agency’ to respond with change impetus (Burgelman et al, 2017). This includes outlining key actions and enablement on the roles of managers (Mantere, 2008) as ‘practitioners’ in processes and strategy-making activities (Mantere & Vaara, 2008).

In context of this study, the ‘**agency to reform**’ considers how different conception of strategy impacts strategy-making and strategy implementation processes of the firm (Whittington et al, 2017), whereas the ‘**prevalence of growth orientations**’ considers the substantiation of Cardoni et al (2020) argument that firm’s KM approach moderated by performance management measures amplifies the economic transformation and sustainability.

With utmost focus on consistent and positive delivery of pertinent implications to SMEs (see Table 2.3 & 2.4) representing Key Result Areas (KRAs) which is the fundamental areas of the strategic outcome of SMEs’ business reform or regeneration, owner-managers are highly encouraged to establish coherent SM and KM as a primary source to support the firm’s strategic innovation and sustain its economic survival by increasing the effectiveness of decision-making (Cardoni et al., 2020). *Particularly relevant for this research is the successful management of knowledge and competency to enable long-term future development strategy orientations for SME growth and maturity.*

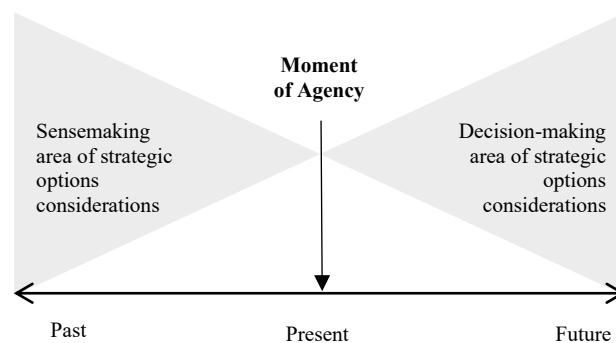
In turn, the direct implication of SM on managing tangible resources and sound financial structure would facilitate the sustainability of firm’s economic growth by ensuring the optimal balance between the rate of rapid growth with effective utilisation of its resources (Chang, 2012). This follows, in a study on the innovative frontiers pertaining to internationalisation of Malaysian SMEs, barriers to sustainability orientation are strongly influenced by management’s incompetence and internal deficiencies on knowledge and information factors which govern the organisational decision criterions (Hasim et al., 2018).

### 2.3.1.2 The configuration & processes of decision-making in SMEs

Decision making in context of SMEs is mainly concerned with establishing strategic posture by determining and evaluating best possible or alternative courses of actions over strategy orientations. This include defining firm's strategic stance on adopting coherent policies based on either: (a) innovative/technology, (b) entrepreneurial growth, or (c) sales and marketing, in tandem with the firm's vision on growth orientation (Hagen et al, 2017).

Likewise, decision making in firms give rise to deeper considerations on making future agency or actions to foster growth and maturity. However, cognitive biases based on firm's owner-manager's emotions or past experience shape the area of considerations in the present moment of decision imperatives. This is also true when owner-managers or decision makers in the firm tries to establish a 'deep-learning' of prevailing situations with observed patterns in the past with what is called 'sensemaking' (Boland, 2008). Figure 2.4 depicts the typical quandary on 'moment of agency' faced by firms with attributed aspects of hindsight and foresight on strategic options considerations.

Figure 2.4: Depiction of decision-making and sensemaking affinities in firms



Source: Adapted from Boland (2008).

Similarly described in a military operations perspective, under the 'fog of war' and pressing time to response, a commander adopts sensemaking to enhance understanding over situations that can serve as basis for counteractivities and/or survival actions (Jensen & Brehmer, 2005). What firms can learn from configurations of military decision-making process suggests that *an analytical planning process* would be advantageous to support future intuitive decisions. Moreover, overwhelming issues clouding strategic planning initiatives linked to firm internal stakeholders' alignment and ability must be overcome. In fact, with combined friction of tactical environment this can essentially be achieved by counteracting inherent biases with useful decisions that 'makes sense' (Marr, 2001).

Conversely, in dealing with the essence of time-pressure, uncertainty and complexity, even elaborate-structured decision processes (Thunholm, 2005) appear to often change in organisations already facing devastating consequences of faulty decision-making (Roberts et al, 1994). Factors leading to a potentially faulty decision-making also affects the inherent decision quality to maximise value and advantage (Todd & Benbasat; 1992).

Amongst the contextually relevant factors affecting decision-quality in SMEs considered in this study are what Phillips-Wren & Adya (2020) identified as key ‘decision stressors’ associated with: (a) multiple-source information overload particularly when it comes to dealing with crises, (b) time pressure to deliver business continuity and sustainability, (c) uncertainty of the future and external environment, and (d) complexity in dealing with firm’s agency to reform. They went to further suggest the use of decision aids in decision systems such as the most commonly used generic or customised strategic shift frameworks, help mitigate biases in strategic options considerations and intervene decision barriers in a given specific situation.

Besides, with sensemaking firms can reduce the vagueness of implications from past experiences by reinforcements with repertoire of variation and selection patterns. This in fact is the focus of the study in attempting to provide additional and ‘meaningful’ useful insights to establish highly effective SDM frontiers for SMEs. To further understand the benefit of a design-thinking enabled overarching framework on decision-making for determination of strategy orientations, the configuration of decision processes in enriched SME firms’ organisational enactment is explored.

SDM processes must traverse across business units and disciplines in SMEs and are vital when dealing with ambiguities and uncertainties (Ahmed et al., 2014). In fact, numerous SDM techniques are available for use in business planning despite being performed rather intuitively and/or informally by owner-managers. These approaches and methods play a significant role to help organisations understand, analyse, manage change and evaluate complex and complicated situations. For example, and in context of the study’s focus on inferences leading to effective decision-making, the usefulness of decision-making techniques shall depend upon three distinctive aspects of an issue or inquiry which include: (a) understanding the compelling situations and interrelationships with the firm internal and external environments, (b) a commitment to change and managing multiple perspectives, and (c) learning and creating an awareness of critical boundaries (Williams & Hummelbrunner, 2010).

The “Cynefin” framework (i.e ‘habitat’ or ‘place’ in Welsch) introduced by Snowden & Boone (2007) for instance, facilitates deeper insights into complexity of managing disruptions and instigates sensemaking for managers. It was amongst the key models described by Williams & Hummelbrunner (2010) with specific notions to help business leaders relate their critical business issues and strategic choices to prevailing operational environment. However, there remains a gap in specific contextual applications to SMEs for managing discontinuous change and indeterminate disruptions. Rather, this framework is an extended approach to Ansoff’s (1979; 1987) seminal strategic management methods on decision-making, with an exceptional and practical approach to systems thinking.

Papadakis & Barwise (1997) posited SDM are defined by key attributes of strategic decisions which inculcates: (a) difficult decisions with significant long-term effects, (b) connecting firm’s deliberate and emergent SOs, (c) source of learning for firm’s continuous improvement imperatives, (d) development of firm’s internal stakeholders and resources, and (e) cutting across functions within the firm’s internal structure. This further led firms to focus on three emergent themes of organisational learning, decision implementation, and information systems impact and effectiveness.

However, from Papadakis et al (2010), substantive priorities of establishing future research continue to persist for integrative research that considers context, process, content and outcomes. It would be important to ascertain the trade-offs between SDM process attributes with strategic outcomes with full considerations to context variables on decision making itself. Amongst the stipulated key context in relations to this study would be the need for more advanced techniques and examination of more complex relationships with drivers for higher decision-making efficacies.

Furthermore, these process dimensions are related to (i) ‘decision perspective’ (or preferred opinions) on criterion and impetus of the strategic decision, (ii) strategic thrust & management drive to assimilate effective decision processes in managing internal issues, (iii) implications of the contextual external business environment and internal issues and configurations (Papadakis et al., 1998). This also follows that SME firms with lesser formal policies and comprehensiveness of decision process would often exhibit dominance of ‘decision perspective’ over other stipulated factors in SDM processes.

Taking on the notion of navigating ‘external drivers’, SME firms typically engages the classic process of rational decision-making (Dewey, 1910; Hurst et al., 1983) which include the

sequential stages of: (1) problem awareness, (2) problem definition, (3) developing alternatives, (4) evaluating alternatives, (5) implementing a plan, and (6) evaluating results. With strong alignment towards receptive information gathering for problem solving, owner-managers often would reactively intervene compelling situations affecting the firm and business ‘intuitively’. This in fact indicate a solid foundation for developing a more proactive information processing and encourage the element of a more formalised ‘preparedness’ for SME firms when managing indeterminate external disruptions. Figure 2.5 below depicts this sequence in context of SMEs decision-making practice accordingly.

Figure 2.5: Sequence of decision process typically employed by owner-managers of SMEs



Source: Adapted from Nichols (2005)

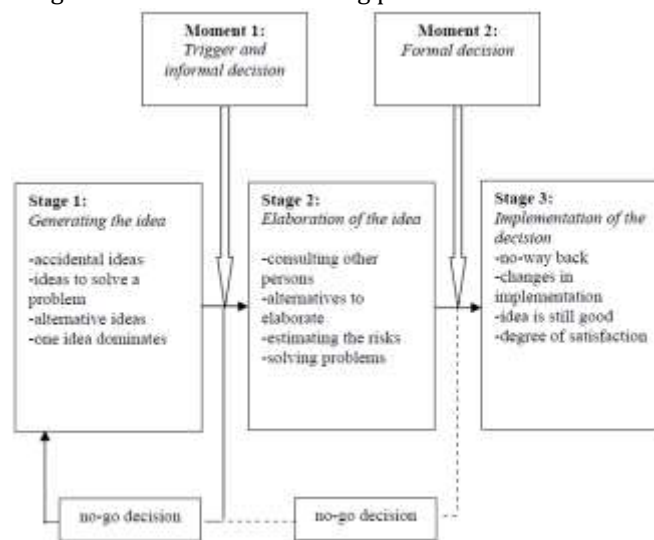
In consequence, when it comes to devising the paths leading to a ‘strategic choice’, the simple and widely practiced approach to decision making imposes critical gaps on reflecting the iterative nature of establishing clarity on strategic issues and causal links to real strategy outcomes which may cause or explain growth uncertainties. In context of this study, particularly in dealing with growth uncertainties and market volatilities, it would be essential to distinguish the nature and characteristics of strategic decisions in order to consider efficient frontiers pertaining to time-boundedness of decision perspectives and influencing factors.

This follows, and as Elbanna et al (2020c) postulated that interruptions to SDM configuration and processes may arise based upon: (a) *decision importance* – whereby, owner-managers may prioritise strategic decisions based on critical urgency, and thence may employ different methods to save time and efforts; (b) *decision uncertainty* – as owner-managers continue to grapple with complex and novel issues such as the indeterminate disruptions caused by discontinuous change post COVID-19 pandemic era in particular; and (c) *decision motive* – which is entirely dependent on the firm’s or owner-manager’s personal awareness, alignment and ability to react to an opportunity or crisis. Henceforth, it is clear that the decision-making process SMEs must undertake imposes multiple specific and sensitive elements to be considered by either a distinct or dissociate approach (Ogarcă, 2010). Unlike much larger corporations, SME firms require a deconstructed, solid but sensible approach to derive

pertinent ideas, explanations and *prescience* (or foresight) on SOs for growth and business continuity.

For this study, the contextual relevance of transforming ideas into a strategic decisions are of profound interest in developing strategy orientations for strategic regeneration of SMEs. From the extant literature, the researcher has identified the integrated sequential model developed by Gibcus & Van Hoesel (2004) to help disclose usefulness of having a formalised and structured decisional process for SME firms. Somewhat similar to the structure of unstructured model for SDM developed by Mintzberg et al (1976), the model assumes three main stages and two key moments of decision agency (Figure 2.6).

Figure 2.6: Integrated configuration of decision-making process in SMEs



Source: Gibcus & Van Hoesel (2004).

From a corollary vantage point of this study, the first stage defines the firm's agency to reform (or regenerate) with two set of discernible ideas on strategic issues concerning: (a) future issues and (b) future problems in managing prevalent indeterminate disruptions to the business. These ideas are resultant of maturing process for critical evaluation to derive feasible strategic options. The external disruption or trigger together with the informal decision forms the first crucial moment of agency to reform. This event then compels the owner-manager of the firm to define strategic posture based on discovery of influence factors and the intended focus on prevalence of growth trajectory.

The second stage involves deconstructing of the FO, alongside deeper elaboration of the strategic options for development of a crystal-clear SOs the firm must now undertake. After verifying the level or anticipated impact and uncertainty factors to the business, a formalised

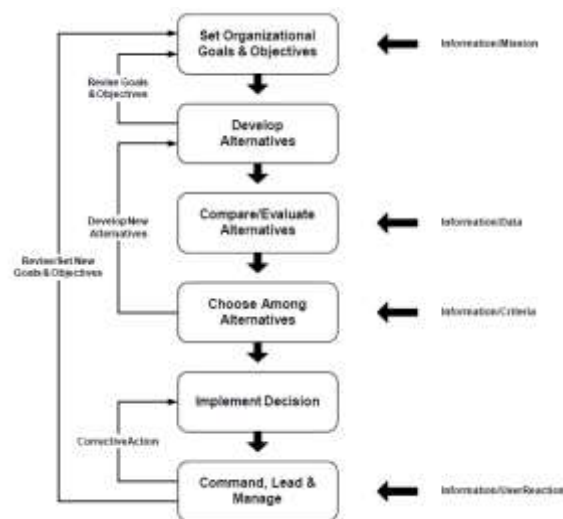
second moment of agency to regenerate shall be decided upon with strategic actions and approval and acceptance of the firm's key internal stakeholders. Thus, it would then be vital to establish and prepare the organisation with inertia to effectively implement strategy orientations for tangible outcomes of SDM on regeneration.

In the final stage of the decision-making process, although firm's structure and preparedness influence the successful implementation of strategy, the notions and idea of strategic posture and agency to reform remains intact. Henceforth, a sequence of decision process which ties back to the first stage to reaffirm and reiterate the firm's strategic posture would be a critical factor to be considered. However, Gibcus & Van Hoesel did not address this crucial element.

Whereas, going back to the earlier described analytical and sequential process example of the United States (US) army's military decision-making process (MDMP), the adoption of an iterative planning approach to understand the situation and 'mission' facilitates concerted efforts in planning and drives preparedness and preparation for the organisation. Originating from the dynamic approach on force planning (Bartlett et al, 1995), the adapted MDMP model (Figure 2.7) relies on the rational actor's role to identify alternatives and consequences (Mintz & DeRouen Jr, 2010) and considers strategic environment changes with time and uncertainties to imply adjustments to tactical belligerent actions or agency. The rational economic decision maker in context also possesses the authority to access the firm's goals and ability to rank preferences to maximise satisficing decisions and forward-looking strategy orientations.

In context of SME firms, similar reliance on logical correlation between threat and capabilities-based planning instigates that owner-managers must adapt firm's decision-making and strategic postures as necessitated to accommodate appropriate transformations. Nevertheless, the limitation to intervene ambiguous situations by recognising 'change' patterns with clarity on strategic options continue to prevail in this decision-making model. This follows that under extreme VUCA environments, insightful learning and sensemaking over hindsight and foresight to strategy orientations and outcomes are vital to posit "quantum-leaps" for SMEs' survival and business continuity under immense time-pressure.

Figure 2.7: Adapted military decision-making process (MDMP) model



Source: Nichols (2005)

In order to perform tactical and strategic decisions, critical information pertaining to firm's ability, resources and management of organisational capacity to deal with their ever-changing environment is vital (Salles, 2006). Conversely, Beneki & Papastathopoulos (2009) postulated that institutionalisation of structured processual systems and business processes facilitates the firm to effectively process critical information, thence improving results and organisational performance.

Moreover, the typically flat organisational structure in SME firms hold the key to raising the effectiveness and efficiency of sensemaking on strategic options considerations by virtue of assimilation and conception of intrinsic values associated with firm's absorptive capacity (Valaei, 2017) and prevalence of growth frontiers. Take for the example, in facing the intense COVID-19 related situation; loss of revenue and adverse risk implications on depleting cashflow and reserves, SMEs can immediately act by reducing expenses, overhead and labour costs under the notions of instantaneous decisions over an external shock to make ends meet (Thorgren & Williams, 2020). Although performed with limited rationalisation, firms were able to instantaneously explore strategic decisions to the best of their capacity and capabilities in relations to dealing with the unfolding crisis and post-crisis outcomes.

Despite the evident survival tactics and strategy of choice being instant cost reductions instead of capitalising on innovative frontiers or capitals investments, Thorgren & Williams (2020) suggested based on their empirical evidence that the lack of long-term outlook or 'experience' on the unfolding crisis itself imposes ambiguity into the policymaking and practice of making strategy in SME firms. This further imply that SDM processes within the context of SMEs

domain and practices in dealing with prevalent indeterminate disruptions and discontinuous change must ‘recommence’ by means of strategic innovation on its ontological approach.

#### 2.3.1.3 Eliciting the effectiveness of strategic decision-making and SDM

Yadav et al (2018) postulated the drivers for sustainability practices in SMEs arises from the external – (i) external stakeholders, (ii) tangible presence and core growth in its business sectors; and internally from – (iii) economic efficiency (managing resources, financials etc.), (iv) organisational disposition and orientation, (v) internal stakeholders, (vi) strategic posture, and (vii) strategic planning imperatives. All of which corresponds to the development of strategy orientations and agency to fulfil both the business needs and the current and future business community expectations (Ayuso & Navarrete-Báez, 2017), as also cited in Yadav et al (2018).

In fact, pertinent barriers and constraints to implement sustainability in SMEs during period of economic uncertainty concerning the (a) extreme rapidity on the need for change under shortage of time, and (b) insufficient financial support and resources, were stipulated by Yadav et al (2018) and were adapted for the context of this study. From a business perspective, these barriers may potentially expose the firm to unwarranted divestments of available assets and resources, particularly in instances where owner-managers’ attribute and rationale interpose on the simple and rapid decision-making process in SMEs (Huang, 2009).

On this front, concerning SMEs’ survival, the impact of divestment strategy (or even investment strategy) outcomes is typically influenced by varying antecedents and SDM implementations, in which the dynamic characteristics of SDM plays a significant role in determining the effects of time-sensitive decisions in early exploration phases (Thywissen et al., 2018). Furthermore, the unique attribute of interdependence of strategic decisions on concurrent decisions, strategic thrusts on achieving growth/maturity in its present/future state and economic drivers are responsible to generate a decision ‘pattern’ and pathways to improve value creation (Leiblein et al., 2018).

Leiblein et al (2018) continued their postulations that critical strategic decisions are related to the underpinning conceptual implications of: (i) resource allocation and strategic investment – in guiding the allocation of resources, (ii) firm boundaries – determining the firm processes, structure in alignment with policymaking; and (iii) competitive advantage – in establishing sustainability and business continuity. This follows, according to Bower (1970) and Burgelman

(1983) that resource allocation decisions need to be critically emphasised in SM that guide investment imperatives, as cited by Leiblein et al (2018).

Despite the fact that there are significant differences between the strategic decision-making processes in large and small companies, the process of resource allocations allows non-systematic or intermittent scanning of external environmental factors in SMEs' typical SDM process (Jankelová, 2017) to be reinforced with optimally integrated investment decisions regarding time-boundedness positioning and structuring on the phases in transformation pathways (Leiblein et al., 2018). In fact, this study will develop an empirical awareness on how these strategic thrusts occur in SMEs in Malaysia and needs to be managed simultaneously with SM frontiers.

According to Elbanna (2006), as owner-managers of SME firms possess the utmost authority in decision-making to propel the organisation forward in such circumstances, the efficacies of strategic decisions rely on the positive interaction between rationality and performance of the organisation. In context of the firm and business environment, two stages of the decision process (decision-making and implementation), and two sets of outcomes (decision and organisational outcomes) are essentially bounded to the ascribed rationality factor (Elbanna et al., 2020b).

This is mainly because regardless of the size of the firm, the leadership and management decision-making approach adopted by SMEs is indeed a deliberated process and reflect their personal experience and learning (Hauser et al., 2020). Although there exist predispositions towards taking actions, anticipating future risks and organising resources in the logic of prediction in decision-making (Hauser et al., 2020) was argued to be in contention with views of some past scholars that unstructured form of decision-making effectuation, which relied on the logic of control to create possible and preferable outcomes (Sarasvathy, 2001) were sufficient for SMEs. Hauser et al (2020) continued to posit that depending on the specific context of decision-making imperatives, firms demonstrate the ambidextrous ability to switch between effectual and causal decision approach. In context of explicating strategic shifts to deal with growth uncertainty and market volatility particularly in the midst of a VUCA business environment, this study would adopt the rationality of owner-managers' sensemaking and interpretation of the properties of their firm's internal and external proponents to change.

Moreover, as SMEs' owner-managers are mostly prone to make decisions based on their own intuition on past experiences, it is often difficult to justify the reasons for the particular outcome

of strategic choices (Covin et al., 2001). Besides, when dealing with highly hostile environments, decision-making impetus involving the multifaceted variables which include: (i) motivation to overcome firm's inertia to respond; (ii) uncertainty of decision outcomes; (iii) firm's capability and performance; and (iv) discontinuous external environmental disruptions, 'intuitions' create disturbance to decision corollaries (Elbanna et al., 2013). In turn, this would render unstructured strategic decisions and SDM for a strategic regeneration to be ineffective.

Granted that Eisenhardt & Zbaracki (1992) provided empirical evidence on ways in which managers perform and justify the outcome of their decision-making, in context of this study, the implication of rationality in decision-making would hinge upon: (a) the existence of cognitive boundaries or guidelines to perform duly tasks; (b) the operationalisation of dynamic capability frontiers to establish SF and hindsight on strategic options; and (c) the clarity of strategic innovation criteria for expediting unique business transformation. Besides, when it comes to managing crucial decisions particularly in dealing with crises, organisational leadership would often adopt the simplicity of proven guide or instructions to facilitate their pressing nature of policymaking efforts (Janis, 1989).

Therefore, in order to improve the ability and capacity for rapid and effective decision-making processes in SME organisations, the nature of effective and efficient decision processes needs to be understood and emulated. Cray et al (1991) posited that organisational decision-making processes exhibited the explicit qualities of: (i) being sporadic at times particularly when having to deal with red tapes (bureaucracies and hierarchies); (ii) naturally fluid with least number of obstructions or disturbance; or (iii) constricted and informally restricted to the granular level of line managers in the organisation. It was further pointed out that in all these instances, it was vital to avoid decision-biases and governance of strategic choices (Hallberg, 2015) by ensuring that leadership role or the owner-managers are directly engaged and involved for consensus and authority. Additionally, empirical evidence suggested the importance of recognising the holistic requisite for improving decision-making efficacies by providing guidelines on the steps or phases of decision frontiers for managers to adopt and employ (Cray et al., 1991).

Inevitably, as what matters most to SME businesses are the agility to respond to any given circumstances, the practical implications of an effective SDM process would enhance the firm's capacity to: (a) sense and size-up opportunities and threats, (b) seize and exploit opportunities with strategic positioning, and (c) sustain its growth and maturity through effective restructuring of its tangible and intangible resources (Teece et al., 1997). This in fact, was

propagated as Teece's concept of dynamic capabilities which is fundamentally the required 'competency' for firms to be able to tackle rapidly changing business environments.

Furthermore, and according to Teece (2019), firms exhibit different levels of capabilities to make decisions and manage change. With apparent risks involved during a state of deep uncertainty, rational strategic decisions are often halted due to gaps in recognising the importance of strategic choices managers must perform on making resources productive. In due course, bringing about richness in SDM with embedded dynamic capabilities of the firm with SM increases organisational agility to recognise immediate opportunities and serious limitations on resources well in advance.

Capabilities to understand and develop continuously improving business processes, must be built in order to accomplish efficient value capture strategy and propel the firm towards growth and maturity. An effective strategic decision in coherence with a good strategy orientation would deliver (1) prescience or strategic foresight on impending obstacles, (2) guidelines and course of actions instigating firm's preparedness, and (3) consistency in logical implementation of feasible actions (Rumelt, 2011), to fulfil the strategic regeneration intent.

As firms grapple with strategic decisions between short-term profit for survival and longer-term business sustainability, integrating holistic view on stakeholders' value reinforcement with leadership and organisational commitments are vital in the management of uncertainty (Haessler, 2020). In doing so, adoption of systematic SM tools and techniques help reduce complexities and ineffective decision frontiers, and although not entirely eliminated, create better outlook and progress in the SDM process (Power & Mitra, 2016).

Some anecdotal evidence suggested that SMEs in Malaysia routinely face bad decisions due to: (i) management's stubbornness leading in failure to recognise highly risky or ineffective decision orientations, (ii) management's lack of foresight, and (iii) management's inactions leading to missed opportunity in tandem with major shifts in their industries. Although useful to help with contextualising the study scope for the researcher, the need to develop scientifically grounded insights remains pending. On the other hand, Power & Mitra (2016) on citing March (1994) suggested that decision makers tend to decompose problems unfamiliar to themselves and use heuristics (or personal experience and intuition) to utilise recognisable patterns or techniques to process information.

Based on these accounted literatures, the notions of developing a 'useful' decision-making tool for SME owner-managers to 'make sense' of an impending uncertain and volatile situation or

crisis and produce a sound and attainable plan for intervention is indeed timely and forthcoming. Besides, it would also be of great advantage to firm's strategy practitioner to acquire the competence and ability to address organisational complexity (and/or FO) with dexterities on decision analysis based on multiple criteria and alternative SOs (Bresnick & Parnell, 2013).

Moreover, within this broad domain of SM and SDM in business, the extent of which strategic decisions are formed with cognitive biases and heuristics influence on the process and managerial contributions at various levels in the organisation to justify and devise 'meaningful' strategy for SMEs, remains a perpetual area of research interest (Guercini & Milanese, 2020; Wooldridge & Cowden, 2020)

#### *2.3.1.4 SM as a proponent to managing SME growth & maturity in a VUCA environment.*

From Giones et al (2019), the prevalent state of a VUCA environment imposes great challenges to strategy experts and business executives to make the right strategic choices, sustain the core of the business and 'make-ready' their organisations for the future. Additionally, Bennett & Lemoine (2014) stipulated the common and overwhelming opinions of firms and its business leaders that efforts to perform formal strategic planning and SM of resources offers anything but a futile attempt to understand future plans and responses. Hence, with increasing awareness of significance limitations in understanding the patterns of change using traditional management frameworks, developing a framework which correlates to effectively manage VUCA situations allow firms to competently respond.

This follows that VUCA in the context of this study and to SMEs is synonym to unpredictable or discontinuous change. In turn, the novelty of preparing for VUCA experience led to misperception or misconception of meaning to business leaders caused by their lack of knowledge, or simply giving-up on how to tackle unpredictability (Bennett & Lemoine, 2014). Furthermore, the unprecedented COVID-19 pandemic driven VUCA environment presents a lack of empirical evidence on a specific management framework for SMEs to deal with this new taxonomy of challenges and change imperatives (Nangia & Mohsin, 2020). This depict that the disruptions caused by the discontinuous change caused by COVID-19 pandemic exposed firms and business leadership teams to novel challenges that required considerable changes to their 'legacy' business practices.

In relations to this, the great magnitude of loss and disruptions instantaneously experienced by many SMEs over a long period of time due to this pandemic rivalled the impact of disasters and takes a huge effort to overcome with crisis management (Auzzir et al, 2018). In such

instances, previous successes and experiences of the organisation contribute little advantage despite management's expertise to revive the firm's sustainable trajectory (Cowling et al, 2018).

The extant literature from several authors defined crisis as dealing with compelling situations related to disaster, catastrophe, susceptibility to negative problem or turning point, chaos and exposed risk on safety and security (Paraskevas & Altinay, 2013). In context of this study, the researcher has adopted Faulkner & Russel's (2001) postulations in which crisis would render or involve: (a) *the failure of organisations to react to rapid disturbance*, or (b) *the organisation's inability to control a detrimental external event*. This follows that both definitions will be considered as the same concept in this study which have significant and similar strategic implications to SMEs in Malaysia.

Given the fact that the domestic and global tourism industry were amongst the earliest and greatly exposed to major risks and acutely impacted by COVID-19 pandemic (Foo et al., 2020), Jiang et al (2018) cited that many scholars have highlighted the importance of SM in dealing with vulnerability of the tourism sector SMEs facing the impact of crises and disasters. Additionally, Ritchie (2009) as cited by Jiang et al (2018) postulated that crisis disaster management has shifted from transactional process of resolving root cause to the problem, to a combination of integrated SM approach with holistic systems.

As all organisations face unexpected or unplanned business disruptions (Oparanma & Wechie, 2014), for SMEs to increase chances of success in dealing with crisis and external market changes, owner-managers need to understand the current state of the business (Alyaseen & Braganza, 2019), and make necessary adjustments to strategy and organisation (Jemison, 1984; Shrivastava & Grant, 1985). This follows that external environment influences SMEs' strategy types (Hashim, 2000) and implementations of change enables better management of available resources and capabilities for SMEs to prepare for uncertainties and explore emerging opportunities (Sarasvathy 2001; Frishammar & Andersson 2009).

Steadfastness to perform sound environmental scanning with exceptional ability to interpret emerging change signals are vital (May et al, 2000). However, this task is acutely challenging to novice SMEs with formal planning being seen as hampering the visions of its founder (Mintzberg, 1994) in contrast to established practices in large corporations with more formal and structured planning processes involving multiple stakeholders (Freeman & McVae, 2001), Nonetheless, perceiving greater certainty about their environments do not necessarily ensure SME success (Parnell et al, 2012). Besides, the absence of systematic approach to decision

management processes does not rule out the possibility that actions for recovery will indeed be taken by change-appetent organisations.

Therefore, to stimulate healthy growth and maturity SMEs must possess two distinctive capabilities to instantaneously foster recovery via adaptive processes (Schumpeter, 2008; March, 1991): (1) **exploration** capacity to assume new alternatives, flexibility to innovate and achieve stable equilibrium in adapting to environmentally driven contingencies; and (2) **exploitation** competence with the ability to refine choices, increase efficiency of selection, implementation and execution. Past scholars considered the simultaneous exercise of both abilities (Carter, 2015) as *organisational ambidexterity* (Raisch & Birkinshaw, 2008; Andriopoulos & Lewis, 2009).

#### 2.3.1.5 Institutionalising ambidexterity in SMEs' decision-making process

The scarceness of research specifically delving into the relationship between ambidexterity and SME survival has raised many doubts on the positive impact of ambidexterity (Dolz et al., 2019). Particularly in organisations facing with external disturbances whilst having internal disadvantages such as issues pertaining to structure, preparedness and change inertia for survival, only a handful of scholars found the positive link between ambidexterity and performance in SMEs (Lubatkin et al., 2006).

Dolz et al (2019) continued to argue that the ambidextrous ability to sense environment changes and look for alternatives to decide on strategic choices enables organisations to respond to the disturbance by balancing exploitation and exploration imperatives. The criticality of ownership and fully engaged leadership management team influences organisational ambidexterity in SMEs. Also, based on empirical evidence it may be suggested that: (a) ambidexterity is directly associated with firm's survival, (b) firm ambidexterity is influenced by leadership's cognitive decisions and (c) firm's prevalence of growth orientations are positively correlated with ambidexterity (Dolz et al., 2019).

The purpose of ambidexterity in the context of this study is to also explicate business resilience by means of regeneration. Likewise, the phenomenon of resilience in anticipating and responding the turbulent business environment due to the unprecedented COVID-19 pandemic is an extension of firm's proactive, adaptive and reactive resilience (Hadi, 2020). Amongst the important factors influencing proactive resilience as postulated by Hadi are firm's internal attributes or capabilities and enabling factors which include innovativeness in using technology and resources to effectively enhance organisational capacity to react during uncertainty.

Furthermore, in a study conducted by Ibrahim et al (2019) on family-run SMEs, the unique attribute of short-term and long-term SOs, including risk aversion and growth aspirations suggested the embodiment of exploration and exploitation strategies in such firms. Focusing on building competency and efficacies into the business, exploitation mode enables firms to optimise the business and concurrently explore new opportunities or expansions to enhance their survival. In addition to this, Andersen et al (2019), posited empirical evidence on over three thousand medium-sized enterprises that firms which are most resilient are also the most ambidextrous and more consistent in their strategy and growth orientations.

On the other hand, operationalising growth or survival strategy is not a once-off prescriptive process. More often when dealing with existing or innovated business model, adjustments are necessary to further refine the firm's prevalence of growth attainment. Randhawa et al (2020) posited in an in-depth longitudinal case study, that business model innovation, particularly as an intervention to manage lifecycle and crisis - ambidexterity in managing business model and market orientation is necessitated by dynamic capability of the firm. Hence, in order to foster effective strategy orientations and implementations, SMEs need to develop and deploy 'fitting' dynamic capabilities which represents its survival intent with agency to reform.

Additionally, firms need to also allow institutionalised mechanism to support its absorptive capacity in alignment with efforts to derive tangible benefits from exploitation of knowledge and information in exploring new opportunities (Müller et al., 2020). This would also incite a parallel pursuit of exploration and exploitation strategy in establishing response to the emergence of disruptions. Although Müller et al (2020) postulations were concerning the disruptive environment SMEs faced in dealing with Industry 4.0 related uncertainty as compared to larger corporations, in context of this study the articulated acquisition, assimilation and implementation of dynamic capabilities in resource-constrained firms is of paramount interest.

On this note, Cao et al (2009) posited that although organisational ambidexterity balances trade-offs between strategic shifts and resource limitations, the simultaneous pursuit combining both exploration and exploitation strategies is desirable for firms with better awareness or employment of internal/external resources with absorptive capacity.

Günsel et al (2018) provided empirical evidence on the contextual antecedents and consequences of organisational ambidexterity in context of SMEs in a developing country with limited opportunity or resources to perform and institutionalise structural ambidexterity. It was

posited by Günsel et al (2018) that key attributes of organisational discipline, motivation on continuous improvement, management's support and trust define the boundaries of firm's behavioural context on ambidexterity.

Consequently, these firms were able to simultaneously perform exploitative and explorative activities at the behavioral level within the firm (i.e., alignment-focused and adaptability-focused tasks performed at granular levels by individual employees (O'Reilly & Tushman, 2004). This also follows that structural ambidexterity denotes the firm's assimilation of organisational ambidexterity into its formalised SM processes, whilst contextual ambidexterity lies in the firm's behavioural orientation (Luzon & Pasola, 2011).

Moreover, although organisational ambidexterity is still an unfamiliar concept in the context of SMEs (particularly in Malaysia), to further develop opportunity or services and products, the complementary characteristics of both structural and contextual ambidexterity are indeed vital and must be contextually applied (Zaidi & Othman, 2015) to fit the firm's SM intent.

On the other hand, Hansen et al (2019) postulated from evidence of unsuccessful exploration of new green technology by medium-sized firms that managers in organisations must consciously select and timely employ integration mechanisms to dynamically manage exploration-exploitation phases before, during and after SDM is established on strategic choices and strategy orientations. What is meant by integration mechanism is knowledge exchange between exploratory and exploitative units in the respective organisation, which correlates to the FO of structure and inertia propagated in this study.

Conversely, Turner et al (2018) postulated that the underpinning features of organisational resilience associated with intertwining concepts of preparedness and determining potential response is indeed a complex and specific process to accomplish. Furthermore, the attributed exploration and exploitation strategic imperatives are inherent in building resilience and require decisions over short-term and long-term strategy orientations to be conducted simultaneously.

Therefore, institutionalising ambidexterity dynamics into managerial practice and SM processes would not only facilitate an increase efficiency in managing disparate events with limitation on resources for regeneration, but it would also facilitate the discovery of novel opportunities and sustainability of strategic choices (Birkinshaw & Gupta, 2013; Minatogawa et al., 2020) for firm's ultimate survival.

Fourné et al (2019) suggested structural separation to balance exploration and exploitation in highly systemised and technology intensive environments to allow owner-managers and line

managers at granular levels in the organisation to function effectively. Nonetheless, the structural separation to achieve organisational ambidexterity is much more prominent in larger corporations (Lubatkin et al., 2006; Hill & Birkinshaw, 2014). In the case of SMEs with limited resources and lean organisational structure, the risk of extended and intermittent exploration activities (Burgers & Covin, 2016) may inhibit ambidexterity dynamics to be effectively assimilated into its SM processes. This in fact might be associated with firm's lack of awareness or incapacity to manage internal/external change or innovation.

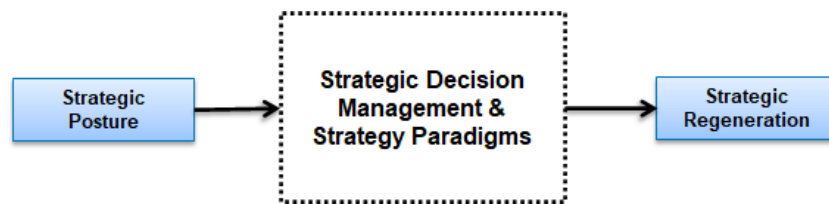
With regards to managing innovation, Brun (2019) posited that resourcefulness and interpretive skills help fosters contextual ambidexterity through generalising and mitigating ambiguities. This would increase firm's ability to tolerate highly ambiguous situations with exploration and low ambiguous situations with exploitation, which in turn would influence the outlook on SMEs transformation orientations in dealing with growth uncertainties and market volatilities.

Concerning this study's context of SM and strategic innovation for SME strategic regeneration, the processes to embed design-thinking to develop innovation or change-readiness for attainment of tangible and sustainable business continuity (Ward et al., 2009) via institutionalised ambidexterity with SM are explored. Besides, as also suggested by Zheng (2018), the correlations between design-thinking and ambidexterity can facilitate organisational learning to enable ambidextrous innovation coherent with firm's strategy orientations for survival in the midst of prevalent external disruptions.

Moreover, under the research SM standpoint, institutionalisation of strategic planning, SDM and ambidexterity dynamics ensures the firm's navigational activities in propelling sustainable growth and maturity to be performed more 'sensibly' with higher efficacies. This study shall specifically delve into the crucial element of strategic shifts which include situational diagnostics & strategic program preparations to facilitate owner-managers' change 'agency' in necessitating levers of change (Johnson et al., 2008) which increases the tangible economic position and stakeholders value propositions.

Therefore, in line with this study's requirement it would be highly essential to uncover the level of awareness and preparedness in SMEs to respond to their state of decline and be allowed to further determine the fate of their business venture (Kunc, 2019) via robust SM standpoints. Figure 2.8 depicts this study's contextual implications of the firm's first order SO for strategic regeneration via established and effective SM practices.

Figure 2.8: First order strategic orientation on strategic regeneration



Source: Developed by researcher

***Conclusion #2: Strategic orientations and the firm's agency to reform are directly associated with effective SM practices to assimilate SDM and ambidexterity into the strategic planning activity. Efficient frontiers for strategic regeneration correlates directly with institutionalisation of dynamic capability of the firm.***

### **2.3.2 Strategic Foresight (SF) standpoint:**

#### 2.3.2.1 The primary purpose & processual component of SF

Given the nature of turbulence and maturity of industries MY-SMEs face, optimum strategy-making process and SDM must evolve in order for firms to remain competitive or even survive. According to Verreynne & Meyer (2010), adaptive strategy-making process influence growth in a mature industry, whereas participative strategy-making fosters growth in emerging sectors. In context of MY-SMEs, ‘participative strategy-making’ incorporates structure and contributions of the firm’s internal stakeholders for long-term SOs, whilst, ‘adaptive strategy-making’, places strategic importance of external stakeholders to determine its strategic posture and support the firm’s agency to reform. They continue to posit that ‘simplistic strategy-making’ processes adopted by SMEs which are typically focused on past successful implemented actions to be repeated (Miller, 1993) are no longer useful. This follows the role owner-managers must effectively progress using systematic and holistic approaches to strategy and SDM when dealing with market turbulence and intensified competition.

In perspective of this research, using the ‘futures perspective’ or ‘foresight’ approach to incorporate industry/market trend analysis and scenarios towards designing SOs for the firm help build ‘innovativeness’ into its strategy formulation and implementations (Ejdys, 2014). Foresight entail assessing the corollaries of strategic actions with proactive strategic choices implying possible future events. This helps firms to harness ‘sensemaking’ element into its SDM whilst establishing growth potentials and be able to steer away from danger and perform risk mitigations more effectively (Slaughter, 1990). Subsequently, foresight and SF shall be used interchangeably in context of this study.

According to Slaughter (1997), SF is fundamental for firms to: (i) obtain the ‘big picture’ on SM and SDM imperatives particularly in managing growth uncertainties; (ii) increase organisational ‘alertness’ to change signals by virtue of preparedness for plausible scenario outcomes, hence improving intervention of arising or compelling strategic issues; and (iii) enhances firms position with ‘first mover advantage’ on value creation and capture particularly in a volatile market situation. In turn, SF would enhance firm’s resilience to crises and continue to be ambidextrous in developing long-term objectives.

However, unlike larger corporations, SF is rarely employed by SMEs due to the complexity of the foresight methods itself, including the firm’s attributed structure and processes with the need to invest substantial resources (Vishnevskiy & Egorova, 2015). Conversely, Kononiuk &

Glińska (2015) posited the most important dimensions enabling effective and mature SF practices in organisations include firm's proficiency to generate anticipation, innovation and visions of the future.

Kononiuk (2017) posited in order to effectively assimilate innovative strategy formulation and practices into the organisation, the basic assumption premises on SF (Rohrbeck et al., 2015) must be upheld. Adapted to the context of this study, these assumptions include: (1) multiple futures and strategy outcomes are possible, (2) driving forces could be identified and analysed, (3) future outcomes can be influenced, (4) future can be shaped by firm's strategic posture, (5) the prevalence of growth correlates to time-boundedness of actions, (6) discontinuous change impact strategy implementations, and (7) owner-managers' role to drive strategic shifts is crucial and must be driven internally. Figure 2.9 depicts the postulated basic assumption of SF for processual assimilation into firms (Kononiuk, 2017).

Figure 2.9: Basic assumption of SF for processual assimilation into firms



Source: Kononiuk (2017)

This follows, with the firm's established prevalence on growth frontiers and agency to reform, Kononiuk et al (2017) postulated five major areas of advantage when implementing foresight, namely: (a) strategic priority setting – to effectively determine prioritised investment plans and tangible resource allocations, (b) SO setting – achieving clarity on determination of firm's strategic posture and strategic issues explorations, (c) strategic innovation frontiers – managing intervention strategy with internal strategic shifts, (d) environmental scanning – developing absorptive capacity in managing external drivers, and (e) strategy formulation – generating pathways and options for strategy mapping and execution.

Whilst Sarpong et al (2013a) postulated that over-compartmentalising and disparity of functional decisions or roles within the SME organisation may impede foresightfulness, empirical evidence suggested fundamental enablement of SF with innovation orientation of the firm. This coupled with institutionalised processes to harness ambidexterity within the internal structures and decision-making, creates a more flexible and dynamic organisational subsystem for strategic choices (Johnson et al., 2008).

Paliokaitė & Pačėsa (2015) on the other hand, posited that foresight triggers organisational ambidexterity particularly in managing radical innovation orientations. This is due to the (i) environmental scanning, (ii) strategic options considerations, and (iii) implementations of strategic postures for value creation and value capture attributed to SF processual implications. These facets of SF are indeed vital for development of the firm's 'reform' strategy considering the demands of arising strategic issues (Merzlikina & Kozhanova, 2020), in this case intricacies of factors contributing to growth uncertainties.

Nonetheless, according to Gordon et al (2020) explicating further efficacies in managing future challenges amidst focus on current priorities, remains an exploratory area of research to corroborate effectiveness of SF within SME firm's strategy practices and determination of innovation orientations. With this in mind, this study adopts the vantage points of Rohrbeck et al. (2015) postulations that studying the contextual implications and relevance of using SF in MY-SMEs in particular, help unveil (a) better reasoning or sensemaking for owner-managers to improve SDM outcomes, (b) rationalisation of owner-managers decisions on firm's strategic postures bounded by its founded objectives, and (c) effective operationalisation of SOs and strategy implementation practices for organisational adoption and continuous improvements. This also follows that SF in rapid change and high-velocity turbulent environments requires strategy-as-emergence to be in place with strategic adaptations of the firm's resources and key activities (Andresen et al., 2020).

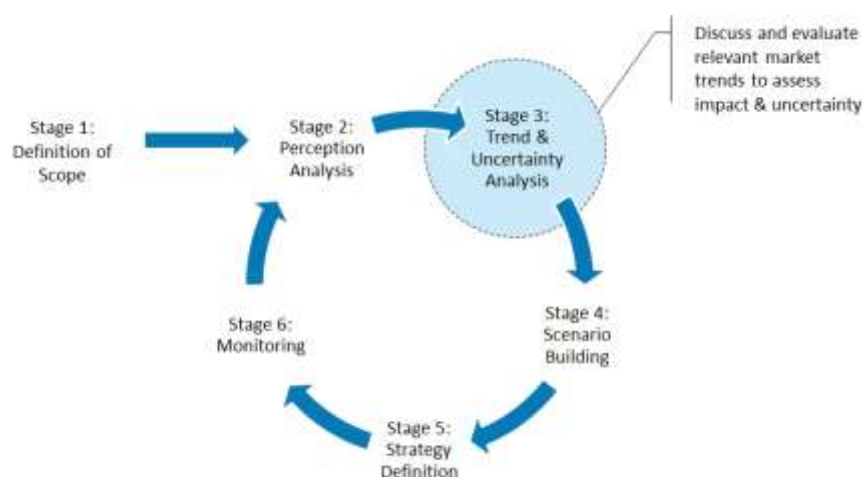
#### [2.3.2.2 'The Futures Bridge' to Strategic Decision Management & Strategy Paradigm](#)

According to Kaplan & Orlikowski (2013), projection of the future trajectories on strategy paths must consider the assimilated present issues and historical accounts of past corollaries. This follows that at the moment of agency, the mechanism of strategic choices is influenced by the firm's view of the past and present. This entails, in promoting a dynamic strategy-making imperatives, time-bound horizons over which environmental turbulence impacts are deliberated to provide more meaningful decision on SOs. This temporal consideration in turn,

help defines the period of either the present (i.e., now), mid-term (i.e., transition) or future for strategic choice considerations along the firm's growth or maturity cycles and produce organisational inertia and transformation altogether.

Taking this temporal frontiers and approach into further considerations and in context of this study, SF rooted scenario-based approach to strategic planning allows firms to critically evaluate relevant market trends and assess impact and uncertainty levels associated to the firm's strategy building activities (Wulf et al., 2010). According to Wack (1985) as cited by Wulf et al., scenario planning would entice owner-managers to acknowledge and account the present external environments uncertainty with multiple perspectives to generate multiple strategy options for innovation or change. Figure 2.10 depict the foresight considerations on scenario-based approach to integrate internal and external perspectives into strategic planning and dynamic strategy development in change appetent firms.

Figure 2.10: Foresight considerations on scenario-based approach to strategic planning



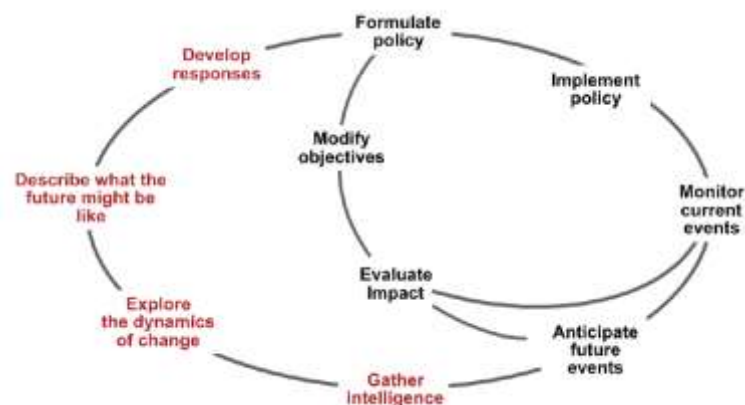
Source: Wulf et al (2010)

Conversely, Buytendijk et al (2010) argued that besides the conventional use and design of strategy maps performed in most organisations, scenario analysis plays an important role as an effective method to scan the multiple future of possibilities and outcomes to strategy. However, although useful for strategy implementation phase, strategy maps lack the 'sensemaking' component of strategy imperatives pertinent to managing VUCA environments. They posited that scenario-based rooted strategy maps would enable firms to be more 'prepared' and able to strategically intervene discontinuous change and uncertainty to establish longer-term sustainability more effectively.

Undoubtedly, scenario analysis provides a qualitative and systematic way to explore future issues (Schoemaker, 1995) and envisioning of plausible future outcomes with exploration and exploitation imperatives in managing opportunities and threats (Miller & Waller, 2003). Owner-managers may benefit with deeper-learning from multiple perspectives and factors considerations to avoid tunnel visions on strategic choices and become more flexible in operationalising strategy and define the firm's strategic postures (Schoemaker, 1995; Miller & Waller, 2003) more effectively.

Bridging the SDM with SF in context of this study implies developing effective forward-looking strategies in practice by adopting issues exploration to gain meaningful insights on future strategic problems and opportunities for MY-SMEs. With the main aim of establishing processual foresight focusing on the future of SME firms' overarching performance in context of sustainability on revenue and economic growth, two type of future issues which may impact SME firms include: (a) future problems, and (b) future opportunities. Figure 2.11 depict this processual implication of strategy-making with the linkages to SF to foster development of firm's responses to discontinuous change. In this case, conventional cyclical nexus of formulating policy is complemented by anticipating future events cycle which is called "The Futures Bridge"<sup>18</sup>.

Figure 2.11: Processual implication of strategy-making with "The Futures Bridge"



Source: UK Government Office for Science (2018)

With profitability being the overarching strategic objectives, each firms would have different SOs for solving strategic future issues in sustaining the business depending on stages of growth

<sup>18</sup> Source: <https://www.gov.uk/government/publications/futures-toolkit-for-policy-makers-and-analysts> [Accessed 20/08/2020]

and maturity of the firm (Baaij & Reinmoeller, 2018). Accordingly, this entail firms to also hypothesise on plausible future events to evaluate the impact on its planned or intended objectives. By adopting the “futures bridge”, owner-manager may well address issues concerning: (i) the impact of influencing factors on future problems and opportunities, (ii) determining the critical areas of high susceptibility to foreseeable disruptions, and (iii) estimating the impact of uncertainties on firm’s performance and survival.

According to Meyer et al (2020), when firms consider opportunity exploitation as part of its SOs, configurations of its internal structure and resources must be complemented with exploration element from foresight to anticipate dynamic changes within the environment it operates. This is vital as part of instigating future preparedness in firms which is amplified by its size and growth frontiers. They posited that that the performance and longer-term endurance of firms are influenced by its capacity to adapt to future changes which are typically more prominent in larger and well-structured organisations.

Rohrbeck & Kum (2018) on the other hand, postulated that foresight may help decision makers to define strategic course of actions to deliver greater firm performance, whilst steering away from linear trajectories of growth expectations. What is meant by this is that, with the institutionalisation of SF in organisations, embedded processual responses to external uncertainties would directly correlate to the firm’s profitability and business continuity. However, Rohrbeck & Kum’s considerations and empirical study was specifically focusing on larger and corporate organisations. The lacunae of empirical evidence on the implications of this notions remain scarce particularly within the context of smaller businesses. Despite this, SMEs firms are to some extent accustomed with scenario-based approach towards detecting weak or hazardous environmental signals and continually performing strategic planning for uncertainty.

Nonetheless, Ahlqvist & Uotila (2020) argued that identification of weak environmental signals which preliminarily signify potential major change in the future correlates with positioning and relational knowledge of future orientations. They posited that framing the process of identification of weak signals which are not necessarily emerging issues, would rely on the perspective of the observer in order to “make sense” of contextual shifts and this may amplify the widening of strategic viewpoints.

According to Phadnis et al (2016), continual scenario planning on the other hand, influences firms’ SDM on long-range SOs instead of its one-time myopic applications for strategic

planning. This follows that multiple scenario considerations would benefit organisations' flexibility in strategy implementations to ensure effective utilisation of its capital and resources throughout the firm's lifecycles. In context of this study, this corresponds well with the establishment of prevalence of growth frontiers with firm's agency to reform via the embodiment of SF rooted strategic options and strategy paradigms.

#### 2.3.2.3 Analytical foresight methods for SMEs

Rohrbeck et al's (2018) seminal works on corporate foresight benchmarking suggested that future-prepared firms significantly achieved 33% more profitable business than the industry average. This corroborates the fact that SF practices enables firms to also attain a superior economic position over foresight-deficient organisations in future markets by analysing, understanding future corollaries to SOs and performing strategic innovation orientations.

Sarpong et al (2013b) postulated that continuous and contextual practice of 'wayfinding' via institutionalisation of SF methodology, with concurrent emphasis on sensemaking about the past, present and future events enable more meaningful temporal connections with strategy imperatives. This follows that firms are often persuaded to evaluate contingencies when faced with turbulent environments. Moreover, in the increasingly complex and heterogenous business environments, foresight helps foster paradigm shifts and allow firms to envisage a new future outlook and create novel strategies (Inayatullah, 2008).

Gräßler et al (2020) on the other hand, postulated that as volatile environments and emerging technology dominates the business ecosystems, designing the future 'playing-field' involving the integrative approaches and processes between the organisation and its stakeholders with foresight is more critical now than ever.

Traditionally, most commonly used methods adopted by SME firms in forecasting into the immediate future include trend extrapolation, megatrend analysis and SWOT analysis. Particularly in Asia, although scenario planning and analysis is widely used on many platforms and broadly discussed (Popper et al., 2007), its adoption in SME firms has been under-reported. Table 2.5 describes the advantages and disadvantages on adopting some of these common methods.

In context of this study, the researcher showed particular interest in Inayatullah's (2004, 2019) continued seminal works on widely used foresight method – the Causal Layered Analysis (CLA) (Inayatullah, 1998) tool with specific intent on 'peeling' the posited four layers of

sensed or perceived future-relevant issues and identify the series of root causes to each arising strategic impediments. Furthermore, the ‘in-depth’ CLA technique helps deconstruct SME firms’ strategic issues into four quantum layers: (1) *Litany* – preliminary understanding of prevailing concerns using evidence and data centred issues exploration, (2) *Systemic causes* – determining the underlying influences and implications causing the perceived issues, (3) *Discourse* – making sense of the situation via institutionalised firm’s processes and structures, and (4) *Metaphors* – ascertaining meaningful pathways based on efficient frontiers for the firm.

Table 2.5: Advantages and disadvantages of common foresight methods in context of SMEs’ practices

Source/ Reference	Foresight method	Brief description	Advantages	Disadvantages	Pertinent implications to SMEs
Haasnoot et al., (2013); Wise et al., (2014)	Adaptation pathways	Sequencing strategic actions after a tipping point compelling event.	Generates insights on timing of implementation of strategic choices and measures.	Too complex and time consuming	Manually developed adaptation pathway maps based on owner-manager’s own judgment.
Vergragt & Quist (2011)	Back-casting	Describing a desirable future and looking backwards to define actions to be implemented.	Long-term perspectives attributed to absorptive capacity.	Long gestation period and resource intensive.	Unclear path to accomplish SOs due to multiple stakeholder’s influence.
Inayatullah (2004, 2019)	Causal layered analysis	Identifying multiple levels (litany, systemic causes, discourse & metaphor) of change impetus.	Identifies range of transformative actions and allows development of granular levels policy actions.	Requires knowledge on practical/contextual implications and is time consuming.	<i>Introduces meaningful discourse on making strategic shifts and determining innovation orientations.</i>
Phaal et al (2010)	Road-mapping	Collaborative process to develop broad set of action plans to reach future goals.	Creates agency and delineates uncertainty into more manageable strategic options.	Lacks the ability to anticipate external environmental turbulence.	Established graphical display of associated strategic actions with supporting documentations.
Schoemaker (1995); Van der Heijden (2011)	Scenario planning	Developing narratives on potential outcomes of uncertain futures.	Useful in communicating SOs and change narratives when dealing with highly uncertain future.	Highly resource intensive, time consuming and complex process to develop scenarios.	Modelling decision-making imperatives for strategic issues explorations.
Curry & Hodgson (2008); Sharpe et al (2016)	Three Horizons	Visualisation of innovation orientation patterns.	Introduces visualisation of multifaceted approach on developing SOs.	Requires knowledge on practical/contextual implications.	<i>Instigates a commonsense approach to foster meaningful exchange and engagement with multiple stakeholders to define SO fit over time.</i>
Checkland & Scholes (1990); Leonard & Beer (1994);	Systems perspective/ systems approach	Determining a range of effective boundaries for purposeful change amidst	Strengths rely on ability to see the “big picture” and underpinning root	Data intensive and involve organisational participation and commitment.	Requires active involvement of owner-managers in longitudinal participatory

Source/ Reference	Foresight method	Brief description	Advantages	Disadvantages	Pertinent implications to SMEs
Reynolds & Holwell (2010)		complex situations and uncertainty.	definitions of strategic issues.		process of problem solving.
Georghiou et al (2008)	Drivers/Trend/ Megatrend Extrapolation	Trend extrapolation to 'make sense' of the environmental change and drivers.	Rapidly accessible and low-cost simple method of forecasting.	Requires expertise and assumed extrapolation of past trends is unreliable in VUCA environments.	Establishes perceived impact of megatrends on firm's strategic postures.

Source: Adapted from Leitner et al (2018).

This follows that combining methods in variety of ways create an overall methodology which generate significant impact sought from the intended foresight process (Keenan & Popper, 2007). However, producing a selection of methods to be employed needs to be guided by specific objectivities and methodological competence.

Popper (2008) posited that selection of relevant techniques depends on the fundamental attributes of foresight methods based on the (a) nature (i.e., qualitative, semi-quantitative or quantitative), and (b) capability to interpret information based on active discourse. Popper went on to introduce the 'Foresight Diamond' framework (Figure 2.12) that positions common methods based on affinity with knowledge sources of either: (i) *creativity* – focusing on inventiveness and ingenuity of ideas; (ii) *expertise* – relying on tacit knowledge with access to privileged information or experience; (iii) *interaction* – granular level engagements to generate inputs; or (iv) *evidence* – explicating meaningful forecast supported by reliable data and analysis. These criteria, however, can be fully interdependent between one another and practical implications of incoherent or systemic road-mapping mix of methods are plausible.

Figure 2.12: The Foresight Diamond framework

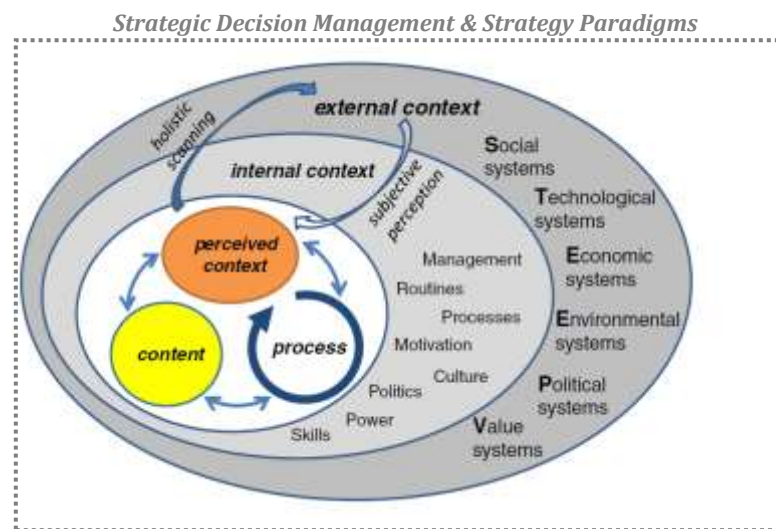


Source: Popper (2008)

Saritas (2013) on the other hand, posited the key phases requirements for operationalising systemic foresight methodology (SFM) to be: (i) *scoping/surveying phase* - understanding the multi-contextual focus of real-time settings, (ii) *creative phase* - anticipating long-term and novel idea developments via information gathering, (iii) *ordering priorities phase* - inclusivity and continuous engagement of stakeholders, (iv) *strategy phase* - policy and actions oriented strategic visions, and (v) *action/agency phase* - methodological support via integration of best practices, action plans and decision-making tools. Besides these commonalities of SFM with instigating absorptive capacity within the firm, this ‘learning process’ translates to active intervention of SM rooted dynamic capability of the firm for policy actions to be taken in the short to mid-term.

According to Saritas & Nugroho (2012) via SFM, the visualisation on interdependence of network of strategic shifts and decision patterns, issues and agency analytics help reveal structural connections between change impetuses and identification of emerging future trends. Extensively shown in Figure 2.13, the external and internal contextual issues (i.e., drivers and signals of change) which are subjected to holistic scanning and subjective perception interpretations; influence the deployment of SF and formulated organisational policies. This would further entail SDM and strategy paradigms or prominent change corollaries to be detected to provide deeper ‘learning’ or insights on unfolding future scenarios through possible and realisable pathways for execution.

Figure 2.13: Systemic Foresight Methodology



Source: Adapted from Saritas & Nugrobo (2012)

Subsequently, deliberation and systematic discourse on the implications of the Futures Triangle's (a) "pull" of future market shifts, (b) "push" of the present environmental conditions, and (c) "weight" of the firm's past history and practices (Inayatullah, 2008), generates an intuitive and meaningful scenario narratives for more effective SOs (Fergnani, 2020).

In context of this study, the Futures Triangle (Inayatullah, 2008) was considered and deemed most appropriate conceptual theorem for Strategic Regeneration horizons due to its qualitative nature and the fact that – deliberation of future outcomes to define the myriad of plausible strategic choices is subjective and can be an exceptionally judgmental process.

Inayatullah (2008) through Futures Triangle seminal development advocated six pillars of futures analytics which forms the basis of linking associated SF methods and tools with SM practices. The exclusive six pillars comprise of: (1) *Mapping* – visualising the associated links between the present and future strategic issues, (2) *Anticipating* – the future outcome of strategic options considerations, (3) *Timing* – the future implications of change influenced by uncertain or cyclical temporal factors, (4) *Deepening* – insights on uncertain future corollaries and innovation frontiers, (5) *Creating alternatives* – with present strategic shifts to improve the outcome of plausible future scenarios, and (6) *Transforming* – with present-state interventions to establish desired future.

The contextual significance of these six pillars for this study is on Strategic Regeneration horizons 'Mapping' intent, whereupon owner-managers may establish better clarity on deriving the firm's position on strategic choices to move forward into the uncertain future. As posited

by Inayatullah, this clarity is crucial for firms to better manage the archetypical images of future implications to the business context of either evolving and progressing, or collapsing amongst others (Inayatullah, 2008). Figure 2.14 depicts this portrayal of contextual relevance of ‘Mapping’ out Strategic Regeneration orientations for SME firms with Futures Triangle.

Figure 2.14: The ‘Futures Triangle’ contextual relevance on SME Strategic Regeneration



Source: Adapted from Inayatullah (2008)

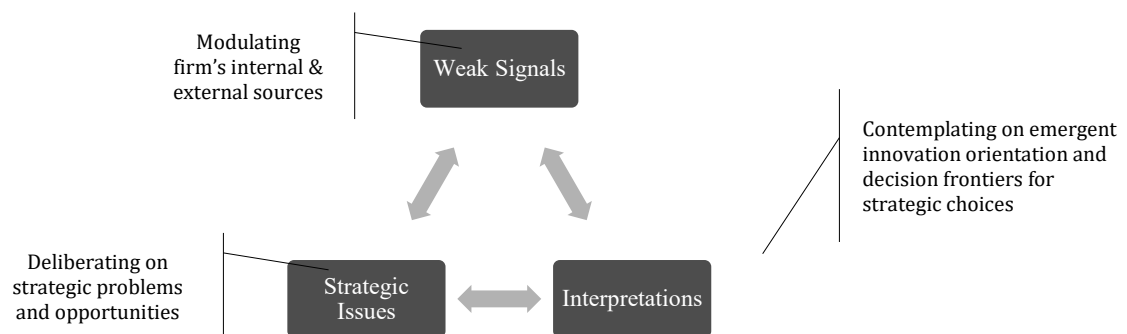
Mapping out the alternative pathways would enhance owner-managers decision-making process to effectively implement future strategy of choice with exceptionally efficient SF rooted decision frontiers. This follows from Jannek & Burmeister (2007) that, albeit a substantial needs on foresight are apparent, particularly due to prevailing VUCA environmental conditions, SMEs deliberate on future SOs with lesser pronounced SF undertakings. Their empirical findings postulated that owner-managers are in fact adopting to some extent, systematic foresight approach on strategic planning and innovation management. Moreover, in larger firms, foresight simulation and deliberation activities using trend analysis, road-mapping and future scenarios contemplations are common. However, there remains a lack of research coverage on concise and systems-based practical approach on ‘future-preparedness’ for SMEs.

The perennial debate between how the rigid and rigorous method of foresight defeats practical applications in SME firms may be resolved by striking a fine balance of the two opposite stances. Hiltunen (2013) postulated the adoption of sequenced steps: (a) anticipating the future, (b) innovating the future, and (c) communicating the future, to be useful for firms to institutionalise critical futures thinking and practice. Importantly, this would allow meaningful discourse within SME firms and avoid perilous blindsightedness towards future change and innovation.

According to Hiltunen (2008), weak future signs or weak signals (i.e., strategic issues signifying impending risks or dangers) should be continually scanned and assimilated in futures

analytics using foresight tools. This follows, by virtue of evaluating weak signals within contextualised ‘future sign’ on determining the boundaries and attributes of: (i) the signal – in terms of its multiplicity and visibility, (ii) the issue – outcomes and series of compelling events, and (iii) the interpretation – contextual relevance to the firm’s policies and existing/future SOs, firms may better understand and are able to estimate the direct implications of weak signals. Figure 2.15 depicts the visualisation of ‘future signs’ interconnections in context of SME firms’ deliberations on weak signals.

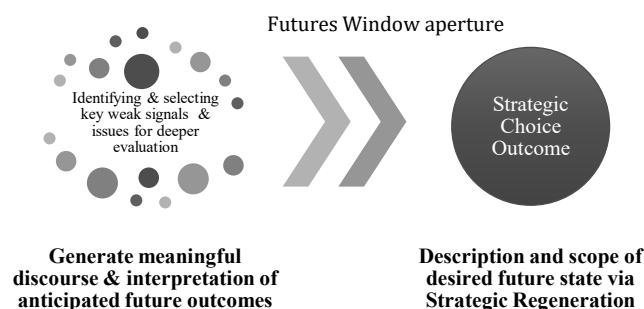
Figure 2.15: Identifying weak signals to ascertain future innovation orientations for SME firms.



Source: Adapted from Hiltunen (2008)

Besides, weak future signals may also be visualised with ‘Futures Window’ by firms to point out possibly new emerging issues and challenges (Heinonen & Hiltunen, 2012). In turn, this ‘aperture’ would allow firms to envision the outlook whilst simultaneously learning about the plausibility of that future. Figure 2.16 depicts the meaningful discourse on SOs with ‘Futures Window’.

Figure 2.16: Utilising the Futures Window to visualise meaningful discourse on strategic orientations.



Source: Adapted from Hiltunen (2013)

Ruff (2006) posited five major fields of institutionalised corporate foresight practice which encompass different levels of strategic issues: long-term market developments, future customer

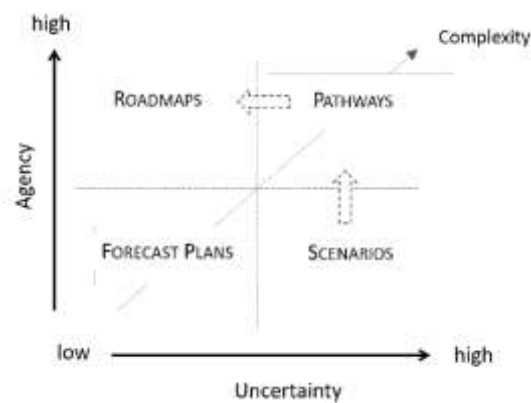
needs, prospective evaluation of innovations, business processes and organisational change, and scanning and monitoring. Futures studies in such enterprise supports the early identification and assessment of opportunities and risks which complements its business and investment strategy, particularly as it involves environmental scanning and temporal horizons driven future-oriented evaluation of innovation orientations.

Cuhls (2020) on the other hand, postulated that ‘horizon scanning’ is intricately linked to sense-making in terms of defining strategic options using SF. Horizon scanning involves identification of gaps in planning processes, particularly pertaining to assessing external information in SDM. Furthermore, scanning activities when performed with a combination of different SF approaches such as discovering weak signals and strategic issues exploration may prompt firm’s focus and attention towards future problems and potential anomalies or opportunities. Nonetheless, Cuhls argued that persistent and continued focus and attention on issues scanning remains an obstacle in most SME firms.

Nevertheless, from extant literature, considerable efforts on developing theory on foresight application and processes continue to yield scarceness on its practical implementations to facilitate future innovation orientations which makes immediate-practical sense to SME owner-managers. Sharpe et al (2016) posited that explicit applications of sensemaking processes connecting the present time-boundedness with desired futures may facilitate detection of emergent or divergent issues associated with future outcomes on strategic planning. This follows that “Three Horizons” framework first coined by Curry & Hodgson (2008) is better explicated with overlapping organisational drivers for strategy paradigms which include three evolving patterns based on managerial, visionary and entrepreneurial paradigm shifts of the firm. Moreover, the visualisation of patterns of renewal help inculcate meaningful dialogues over prospective sensemaking and reflexivity-in-practice (Sarpong et al, 2013b) with owner-managers on imperatives of strategic shifts and management of strategic decisions.

Subsequently, the relevance of SF analytics for agency under uncertainty implies that with high uncertainty levels, it would be vital to identify novel ‘pathways’ for strategic options implementation using foresight tools and methods. This structural focus on practical implementation of SF tools on triggering change is briefly depicted in Figure 2.17. The arrows indicate that scenario analysis to some extent is often complemented and useful to derive strategic options pathways, which in turn exhibit close affinities to strategy roadmaps implementations.

Figure 2.17: Relevance of analytical foresight tools for agency under uncertainty.

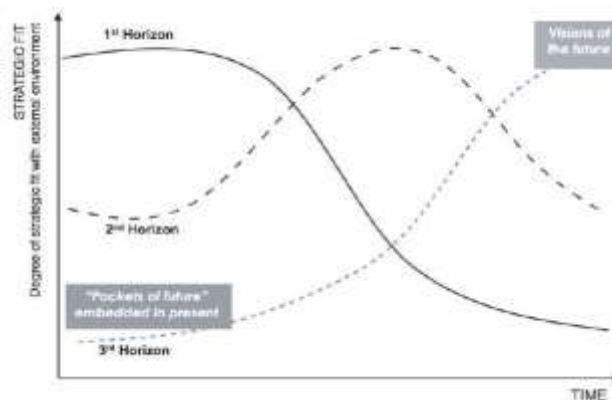


Source: Sharpe et al (2016)

The vision-building “Three Horizons” framework as presented by Curry & Hodgson (2008) help firms construct a range of plausible and coherent futures to determine the preferable outcome on strategic postures and future innovation orientations. Although the method is based on contentious judgments of the user (or actor), with regards to academic rigour and literature reviews, this technique relates drivers of change impetus and futures analytics to emergent themes and strategic issues. Of particular interest of this study is the enablement of more effective policymaking and SF rooted strategy implications to SME firms.

In context of this study, Strategic Regeneration pathway’s depiction by means of establishing degree of strategic fit with external environment (or agency) with temporal limits of the Three Horizons model shown in (Figure 2.18) considers the firm’s strategic posture driven with prevalence of growth orientations. This is characteristically implied by “pockets of future” embedded in the present timeline. Whilst the firm’s strategic posture orientation fit in managing uncertainty correlates with the ‘visions of the future’ which articulates the transitional phase of strategic shifts into the future, several occurrences of emerging future patterns may arise throughout the firm’s growth and life cycles.

Figure 2.18: Pathway depiction of the Three Horizons framework



Source: Curry & Hodgson (2008)

In general, the key advantage of visualising the pertinent implications of current prevailing objectivities over turbulence periods (indicated by 1<sup>st</sup> horizon) is the recognition that conventional or reactionary managerial practices will lose its strategic fit with emerging conditions. Whereas deliberations of radical or incremental transformation agenda on strategic objectives by virtue of entrepreneurial (indicated by 2<sup>nd</sup> horizon) and visionary (indicated by 3<sup>rd</sup> horizon) paradigms would allow firms to overcome plausible and desired futures outcomes more proficiently.

#### 2.3.2.4 Pertinent implications of SF to SME firms

Owner-manager motivations and external environmental uncertainty are the key antecedents to strategic planning initiatives in SMEs (Marn et al, 2016). It is important for SMEs in context of it being an ‘organisation’ to proficiently employ strategic planning processes in managing and coping with rapid changes in the external environment (Owolabi & Makinde, 2012). This means it is even more critical for owner-managers to succinctly envisage strategic recovery ‘frontiers’, given that perilous business environment inflicts higher degree of uncertainty on SMEs compared to larger firms (Agbim et al., 2014; Chin et al., 2014).

Future research and studies aim at mapping uncertainties by discovering unobserved pathways that influence the outlook and potential disparities to strategy outcomes (Ayres, 2000; Van Notten et al, 2005; Saffo, 2007). Foresight, regarded by some scholars as an art or a science (Bell, 2003), is a critical thinking approach and a systematic tool which facilitates forward-looking strategic decision and actions to overcome indeterminate risks and preparing with plausibility of opportunity profiles (Slaughter, 1997; Horton, 2012).

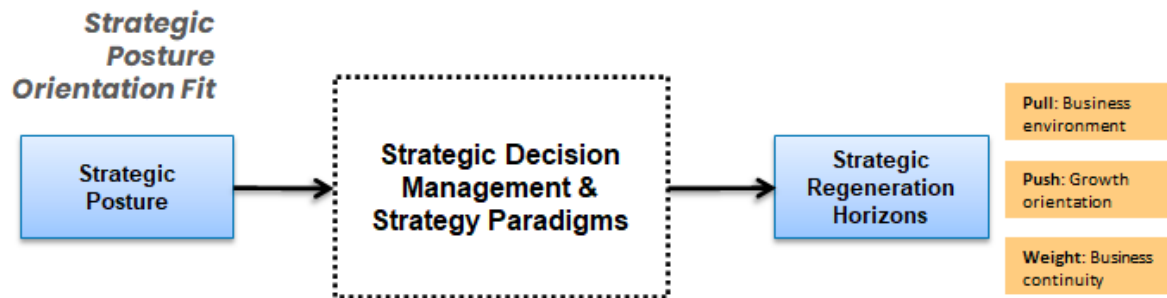
In full considerations, SF can help define the process of communication to generate mid to long-term vision on growth efficient frontiers. Furthermore, it may also support SMEs' dynamic capabilities and aims to strengthen its competitiveness (Burmeister et al., 2004; Cuhls & Johnston, 2006) in three principal areas:

- a) ***Business environment*** (Pull of the future factor) – delivering strategy corollaries based on evidence of 'futures sign';
- b) ***Growth orientation*** (Push of the present factor) – setting the agenda and priority for strategic management through the perspective on 'Futures Window' aperture; and
- c) ***Business continuity*** (Weight of history factor) – via recapitulations of strategy by 'Futures Bridge' to catalyse innovation orientation and support current SDM processes.

In the strategic context of creating impact and value, it has been accentuated that SF must be integrated into the company's organisational structure and processes (Hines, 2002; Rohrbeck, 2010). According to Wiebe et al (2018), systematic institutionalisation of foresight practices involving strategic issues development and analytics is essential for firms to explore uncertain futures with informed selection of strategic choices. This follows from Chauhan et al (2020), in context of instigating holistic framework for decision-making for SMEs, anticipating change and emerging as a successful evolving organisation with a clarity and objectivity is prerequisite to entrepreneurial firms alike.

On a final note, Sarpong & Maclean (2014) posited via empirical findings the positive advantages of assimilated practices of SF in organisational processes in terms of the increased rate of adaptation and response to changing business environments. They also argued that deeper understanding on the immersive implications of institutionalised foresight requires a purposeful longitudinal study to be conducted. Nonetheless, it would be timely and highly significant for SMEs to discover future limits and patterns for strategic innovation orientations in the present time-bound, and identification of intricate strategies to enable value capture (Sarpong & Meissner, 2018). This is indeed the underlying intent of SF standpoint on operationalising strategic posture orientation fit by deconstructing novel pathways on Strategic Regeneration horizons as depicted in (Figure 2.19).

Figure 2.19: Strategic posture orientation fit on strategic regeneration pathways



Source: Developed by researcher

**Conclusion #3: Deliberations of strategic regeneration pathways (or strategic choices) correlates to ascribed 'Futures Window' based on the firm's strategic posture orientation fit and rooted implications of contextual relevance of the 'Futures Triangle' mapping corollaries.**

### 2.3.3 Strategic Innovation (SI) standpoint:

#### 2.3.3.1 Pertinent implications of SI to SMEs firms

Innovation has become a necessity in present day organisations for achieving competitive edge and sustaining growth and profitability (Gupta, 2011). Past research explored and suggested ways for SMEs to response to turbulent environments and economic downturn by increasing levels of innovativeness to stay in business and grow (Mohannak, 2007; Laforet & Tann, 2006; Raymond & St-Pierre, 2010; Abdallah & Persson, 2014).

SMEs require strategic innovation, market expansion and extension choices for development (Raymond & Croteau, 2006) and must acquire *absorptive capacity* to recognise and assimilate value of new information for gaining advantage (Zahra & George, 2002; Gentile-Lüdecke et al, 2020). This entail embracing new strategy paradigms with open innovation would be critical for SMEs (Abouzeedan et al., 2013) to limit owner-managers' overemphasise on internal factors in overcoming challenges (Laursen & Salter, 2006).

This study explores the strategic posture of SME firms in connection to the turbulent business environment by changing their internal configurations and/or management practices. Thence, open innovation (OI) ingrained approach to SI assumes that firms exploit all its network and knowledge on internal and external sources for ideas and paths to market (Chesbrough, 2003; Gassmann, 2006). This follows, firms with exceptional ability to sense change and seize needed capabilities to transform are more inclined to develop an OI approach to increase awareness, relevance and reputation (Grimaldi et al, 2013).

With particular attention on SMEs in *peripheral regions* or emerging markets, and consistent with innovation as the process of continuous renewal (Tidd et al, 2009) context of this study, three levels of SI implementations covering both organisational and technological perspectives of innovation for SMEs were implied (Mosey et al., 2002; Harris et al, 2013):

- (1) *Radical innovation* – making drastic changes in key activities to be successful in novel transformations (Caetano & Amaral, 2011);
- (2) *Incremental innovation* – short-term positioning focus, with particular approach and adoption of OI to establish overall positive influence on new value offerings (Fu, 2012; Parida et al, 2012; Spithoven et al, 2013); and
- (3) *Reactionary innovation (remain dormant)* – maintaining business as usual or preserving from taking heed of change signals, despite SME firms being nimbler and more flexible

in decision-making with propensity to take-up bigger risks as compared to larger firms (Christensen et al, 2005; Spithoven et al, 2013).

### 2.3.3.2 Leading transformation with SI rooted Strategic Postures

In order to survive, SME firms must constantly adapt aspects of its entire structure, strategies and processes (Florida, 2002) to decisively intervene internal and external disruptions when dealing with rapid change in the business environment (Ceptureanu, 2015). With regards to motives and perceived challenges, Ceptureanu (2015a) postulated that under given new environment and business circumstances, new practices and approach to improve operations are vital for SMEs when dealing with change management imperatives.

According to Caiazza et al (2020), turning knowledge into innovation creates entrepreneurial opportunities and generates novel ideas over preliminary or latent opportunities. With firm's agency to reform and responding with clear decisions over unrealised latent opportunities, this would in fact provide possibilities for growth intervention during periods of uncertainty. This follows that studies conducted by Hamburg (2020) also concluded that the consequence of strategic innovation in terms of building organisational competences would improve firm's business operations and organisational processes to achieve greater sustainability.

In a study reported by Boston Consulting Group (BCG) in April 2021<sup>19</sup>, three-quarters of major large global companies dictate innovation orientation is a priority. However, only 20% of turbulence afflicted business organisations were generally prepared and structurally equipped to perform innovation. As portrayed in their report, innovative large corporations such as Apple to Walmart, tend to recover more swiftly from the COVID-19 pandemic. In relations to SME firms, as corroborated in the BCG report - the significant benefit of a 'readiness' to transform via SI, stimulates the firm's capability to effectively recover from the cataclysmic downturn caused by the pandemic.

Nonetheless, reports on innovation capability and practices in SMEs remain scarce. Saunila (2019) posited that with this gap in literature, the need to define innovation capability from a multiple facet and practical standpoint in context of SME firms is essential. Liao et al (2019) on the other hand postulated that innovation capability correlates with the firm's ability to

---

<sup>19</sup> Source: <https://www.weforum.org/agenda/2021/04/worlds-most-innovative-companies/> [Accessed 20/05/2021]

innovate their business model with OI and perform organisational agility in making timely adjustments to internal structure and processes in response to environmental turbulence.

Besides, efficient and effective KM is crucial and would positively impact SI frontiers in agile SME firms (Hassan & Raziq, 2019). They continued to posit that although not fully institutionalised in the majority of SME firms, KM processes are a significant source of competitive edge in firm's ability and capacity to solve problems. In turn, with firm's absorptive capacity to adopt new processes for regeneration or shifting of its strategic postures, increasing organisational capabilities in managing internal resources more efficiently is also positively linked to radical innovation.

Handzic (2006) argued that visualising strategic issues help firms to recognise and make sense of patterns of change; which is also the key to better manage complex events. In context of this study, identifying elements of strategic postures through acquiring new knowledge or weak 'signals', thence converting it into strategic options for strategy imperatives are essential KM capabilities which would enable SI and business model innovation to commence (Hock-Doepgen et al, 2021). This follows that firms need to also be constantly aware of its dynamic environment and risk tolerance.

Moreover, firms would benefit from holistic insights into evolving the business reconfiguration via shifts in the firm's strategic postures by virtue of radical innovation to accomplish value creation and value capture (Clauss et al., 2020).

Conversely, in order to successfully transition from a downturn, firms need to envision and implement combinations of multiple pathways derived from 'interpretative schemes' to explore and exploit future opportunities by adopting SI approach (Buzzavo, 2012). However, as Buzzavo argued, the lack of past research and literature on amalgamated concept of strategy (i.e., strategic planning) and innovation limits the understanding of how SI or strategy in practice unfolds in SME firms. Nonetheless, SI rooted strategic postures would imply greater effectiveness in decision-making processes and allow firms to actively promote ambidexterity (O'Reilly III & Tushman, 2011).

According to Gentile-Lüdecke et al (2020) increased innovation capabilities in such firms may improve its transformation and responses to market shifts or environmental turbulence. Based on their empirical findings, this in fact is exhibited and achieved by SMEs in emerging markets via assimilating OI approach and activities into their organisational configurations and capabilities in developing SOs (Ulrich et al., 2011; Yun et al., 2020).

Torchia & Calabrò (2019) postulated that the typical innovation process for SME firms can be segregated into three high-level phases: (a) preparation phase – identifying and generating strategic options for innovation corollaries, (b) innovation phase – managing resources and activities based on established SOs for transformation, and (c) commercialisation phase – implementation and delivering value innovations via affirmed transformation pathway determined by deliberated strategic choices. In context of this study, the pertinent implication of SI on strategic postures corresponds to the preparation phase in which critical activities involving strategic options for reform are deliberated.

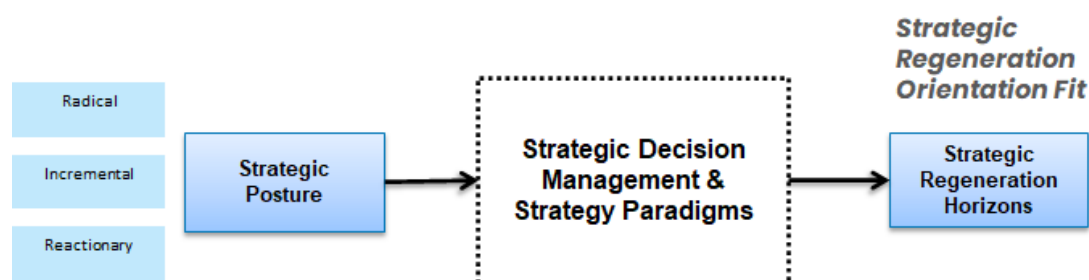
In a recent study conducted by Al Mamun (2018) on innovation adoption in Malaysian manufacturing SMEs, empirical evidence suggested that motive on agency (associated with compelling situations), SOs and firm antecedents (including FO) are the major factors influencing SI in firms. This follows that firm's agency to reform via SI are closely attributed to its innovation ecosystem based on institutionalised processes for strategic planning and policymaking in such firms. Therefore, emphasising the area to focus on development imperatives must be complemented with novel innovation information which is predetermined by the prevalence of growth orientations for strategic regeneration. Whereas Al Mamun et al (2019) posited that under extreme environmental uncertainty, strong affinity towards absorptive capacity is extremely critical. Besides, empirical evidence suggested that enhancement of innovation capacity in SMEs is entirely dependent on internalised decision-making processes and organisational configurations which help navigates the firm's strategic choices with affirmed precisions. In turn, owner-managers are highly enticed to increase the depth of focus on SOs considerations leading to more accurate novel decisions for strategic postures in exploiting and exploring SI opportunities for the firm.

Conversely, Kumar et al (2012) postulated that successful innovation orientations observed in small numbers of successful SME firms are highly attributed to its adoption of OI approach and availability of organisational support mechanism. This follows and according to Dibrell et al (2008), the emphasis on innovation frontiers via formalised strategic decision-making processes and effective organisational configurations must be in place to build strategic adaptability. Whereas 'innovation ambidexterity' as posited by Chang et al (2011), is coherent with the direct correlations between organisational reconfigurations (which may well include FO interventions) and mitigating aspects of environmental antecedents comprising of external forces and drivers.

In context of this study – SI rooted strategic postures based on deliberated ‘sensemaking’ approach to SOs is highly attributed to organisational metacognition processes. Metacognition in this respect concerns the ability of the firm to identify and understand the opportunity driven transformational patterns which correlates to a positive impact on business and organisational performance (Yoo et al., 2018).

Besides, due to the archetypal nature of SMEs’ informal structure and decision approach (Ansoff, 1991), focus on short-term strategic position, remaining exceptionally dormant by pursuing modest or incremental innovation (Mintzberg, 1978) remains prominent, particularly in context of MY-SMEs. Furthermore, from the extant literature, this study entails that longer-term explicit innovation orientations during VUCA periods presents an opportunity for intervention with radical innovation propositions on deliberated strategic postures. Figure 2.20 describes the relationship of strategic posture mitigation towards achieving strategic regeneration orientation fit via deliberations of SDM and strategy paradigms for owner-managers of SMEs to adopt.

Figure 2.20: Strategic posture of the firm driving the corresponding strategic regeneration orientation fit



Source: Developed by researcher.

**Conclusion #4: Corroboration of the firm’s absorptive capacity and innovation capability are the key antecedent to SI rooted strategic postures to attain strategic regeneration orientation fit with the firm’s deliberated prevalence of growth frontiers.**

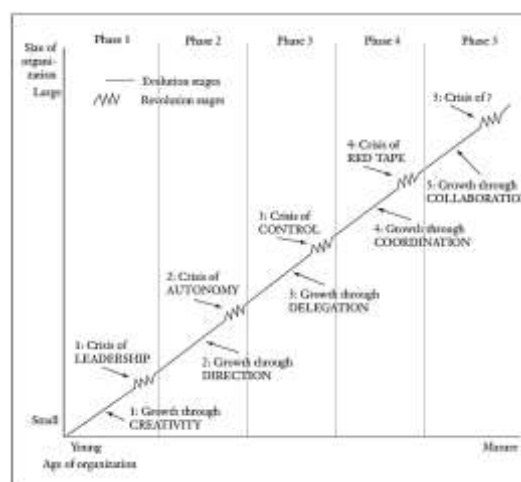
## 2.3.4 Perspectives on Lifecycle & Growth cycles

### 2.3.4.1 Sensing & dealing with crises

From the extant literature, little is understood on the efficient frontiers for successful completion of growth orientations for SMEs particularly during recessionary or turbulent economic periods. Even though organisational learning and restructuring were found to be most aptly implemented contextual strategies by SMEs for growth during past recession periods of 2008-2009 (Gyanwali, 2020), no “one-size-fits-all” strategy was seemly superior. Gyanwali also posited with empirical conclusions that growth driven SMEs in the prescribed challenging periods achieved substantiated business performance by implementing systematic approach in deploying contextual strategies.

This follows that firm’s agency to respond to environmental turbulence under the prevalence of its growth orientations, depend on multiple strategic options and associated factors which influence the strategic posture of the firm throughout its business lifecycles. Moreover, Suková (2020) posited that the affirmation or assumption on firms’ specific growth phase based on Greiner’s model (Greiner, 1972), allow firms to anticipate crisis and undertake early preparation measures to retain or recapture profit-orientation and operational excellence. Nonetheless, empirical evidence suggested that regardless of the growth stage of Greiner’s model the firm is in, the key facet of strategic posture of firms rely on the growth orientations accomplished from previous stages revolution or evolution as depicted in Figure 2.21.

Figure 2.21: Greiner’s Five Phases of Growth



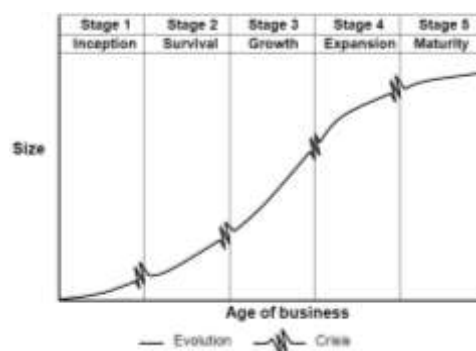
Source: Greiner (1972; 1998).

According to Greiner (1972; 1998) firms need to be consistently and consciously aware of its status and standing in the developmental sequence based on Greiner's model going from phase 1 to 5 in the growth stages in order to spot change signals and impose intervention measures appropriately and timely. This entails exceptional level of firm's 'preparedness' by learning from past crises induced revolution/evolution experiences to recognise novel solutions fit. Nonetheless, inefficient decisions occurring much often in SME firms are typically associated with incapacity to dynamically define and design its SOs based on prevalent challenging circumstances the firm actually faces.

In context of this study, to capture the essence of practices and patterns of decision-making in MY-SMEs in managing VUCA and turbulent environments, particular attention is given to understanding the conceptual implications of Small Business Growth Models (Scott & Bruce, 1987). As depicted in Figure 2.22, Scott & Bruce insisted on adding contextual relevance and applicability of the earlier general models of organisational life cycles (OLC) and growth phases developed by Greiner (1972;1998) and Lippit & Schmidt (1967) to aid SME business managers' sensemaking and decision-making approach. Besides, with emphasis on the age of the business going through stages of inception, survival, growth, expansion and maturity the versatility of strategic planning in managing crisis using adopted models are more evident (Scott & Bruce, 1987).

Additionally, and according to Scott & Bruce (1987) not all business that reaches (or past) the growth and maturity stages ends up being a large corporation. The significant influence of the firm's owner's motivation and industry factors play a major part in growth and transformation. However, as SME firms traverses across its business lifecycle with everlasting crisis precipitation, owner-managers of SME firms must continuously plan for future growth to ensure its business continuity.

Figure 2.22: Five stages of small business growth by Scott & Bruce (1987)



Source: Scott & Bruce (1987).

Conversely, other relevant OLCs developed by Adizes (1979; 1999) and Churchill & Lewis (1983) provide additional and useful viewpoints for strategic sensemaking of the firm's conception of strategic postures and agency to reform under the prevalence of its growth frontiers. Furthermore, SO fit synonymous with the firm's development and lifecycle change signify the firm's learning ability to perform strategic innovation imperatives.

As shown in Figure 2.23, Adizes (1979; 1999) postulated differentiated development via repetitive patterns of 'growing' and 'aging' stages for firm's business 'life'. With the ultimate goal of perpetually and effectively achieving the 'Prime' stage, failures to act in a timely manner or implement the right strategic postures for growth orientations and innovation frontiers would render natural ageing, leading to attrition and decimation of the firm's business value. This would entail the firm to ensure business continuity when its 'vitality' is at its peak by virtue of retaining the balance of operational control and flexibility before the strategic choices on growth frontiers and momentum starts to diminish.

Figure 2.23: Adizes's Corporate Life Cycle Stages



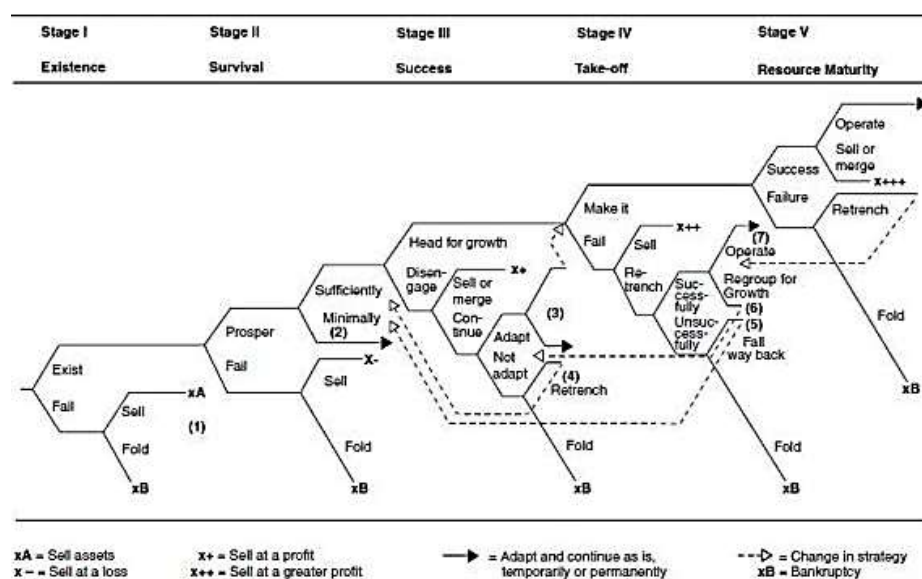
Source: Adizes (1999).

In context of this study, the perspective on OLCs explores the issues surrounding the firm and its decision-making practices to explain growth patterns of MY-SMEs in particular. Figure 2.23 depicts critical points with constraints SME firms need to respond to in order to stay in business and grow. Activities involving managing strategic objectives and available resources corroborates with SDM and FO alignments which must be realised and institutionalised 'repetitively' throughout the age of the business via continuous improvements. As posited by Adizes (1999), in order to sustain prime state and value of the business, firms need to consistently focus on strategic objectives and priorities at each stage of the firm's OLC and effectively implement and manage change.

This follows from Churchill & Lewis (1983), cashflow planning is of paramount importance in SME firms during birth/inception and survival stages of its OLC, rather than a more prominent matured firm whereby, strategic planning and managing processual or operational improvements are more vital. However, Churchill & Lewis argued that conventional OLC frameworks are not entirely suited for distinctively characterised SMEs firms as they assume that business enterprises must advance through all the stages of development for business continuity.

Additionally, traditional OLC models also fail to address cyclical nature of organisational and environmental crises during the early stages of birth and growth itself. In particular, the critical processes of (a) *managing resources* – which include strategic capitals of financial, personnel, systems and business resources, and (b) *managing strategic orientations* – as means of crisis intervention via efficient corollaries of strategic objectives, operational, managerial and strategic abilities, during this critical phases are often neglected. Churchill & Lewis continued to posit that despite the uniqueness of challenges faced by SME firms, the evolution pathways of small firms as depicted in (Figure 2.24), are defined by the efficacies of its strategic managerial and planning factors which influences the firm to make informed decisions on its preferred SI and growth orientations. As can be seen, the nature of iterative decision-making process is evident in managing through crises with intervention at specific stages of the firm's active OLCs.

Figure 2.24: Evolution pathways of small firms



Source: Churchill & Lewis (1983).

According to Bachtiar (2020), on the account of sensing and dealing with impending crises with diversification on the value of business, owner-managers of SME firms would typically explore diversification only upon maturity of the firm or during expansion stages. This follows that under prevalent FO and external environmental constraints during early stages of the OLC, the capability and resources of the firm is limited to effectively managing cashflows and development of key products/services. Hence, it would be crucial for firms to determine its SOs based on specific and intended stages of its OLC.

McMahon (1998) on the other hand, postulated that key focus on understanding the pertinent implications of patterns of growth strategy on firm's structure and business environment should be more widespread and prominent as opposed to relying on stages of the OLC. This is mainly because stage models typically rely on internal dynamics of the firm and lack the attention on external environmental factors which strongly influence key strategic issues exploration.

Moreover, the critical construct of firms' business stages in the OLCs are often contributed by the classification of growth orientations defined by strategic postures of change appetent and innovative firms (Hanks et al, 1993). This entail the operationalisation of OLC stages through uncharted course of firm's growth orientations, thence are imperatively dependent upon the unique configurations of SME firms' context and strategy.

All enterprises face the key issue of 'survival' and as postulated by Horbunova & Buhai (2019), understanding the pertinent and continual implication of lifecycle and growth stages would allow firms to reevaluate its existing position, resources, processes and internal/external stakeholders and drivers in tandem with navigating change and transformation. The cyclical development exhibited by the described activities of managing value orientations and firm's objectives corroborates towards application and implementation of various and specific managerial interventions at different stages of the firm's development or growth.

The concepts of OLCs, particularly Greiner's model depicting evolution and revolution phases is useful for owner-managers of SME firms to make sense of impending crises to define necessary and decisive measures as a breakthrough or a turning point in avoiding dangerous situations. According to Gao & Alas (2010), although firms may encounter similar types of crises at the same stage in the OLC, it would be prudent for owner-managers to manage crises by refocusing growth orientations in accordance to the firm's actual life stages.

Furthermore, empirical evidence suggested that restructuring of firms would exclusively follow an attrition or poor performance of a firm in stages of growth to maturity (Bišić, 2018).

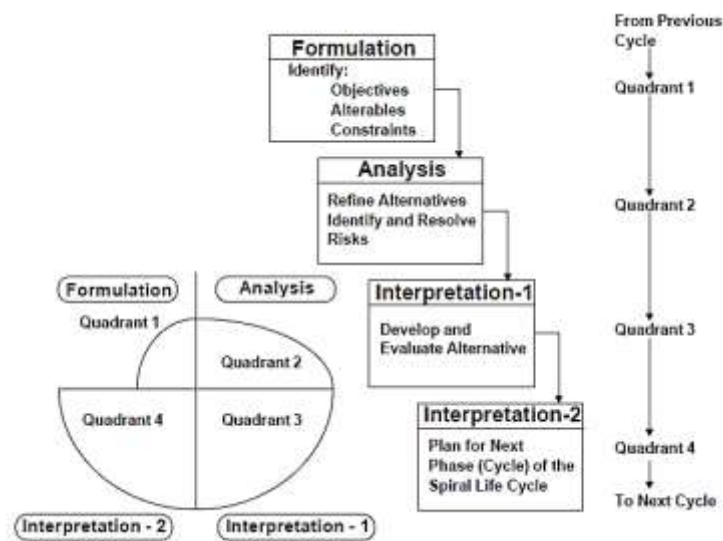
This would also entail the final outcome of restructuring or organisational reconfiguration is mainly to ‘reverse’ the potential collapse (or decimation) of the firm when dealing with crises (Jasinska, 2018). Nonetheless, it would also be imperative for SME firms to view crises as not just an unavoidable element or threat to the business but also as a precursor to development and agency on growth orientations.

With regards to risk mitigations, Shahzad et al (2019) posited that higher corporate risk-taking aptitudes have much significant affinities with organisational inception/birth and decline stages. This conforms to vital inferences and sentiments observed in most firms as part of their response to managing capitals and resources amidst the strategic shifts influencing their growth and evolution pathways.

In light of this, Yue & Hanxiong (2011) postulation of differentiated strategies for each stage of firm’s life which include: (a) differentiation and specialisation for survival stage; (b) cost leadership and customer’s value focus for growth stage; (c) integration and diversification for mature stage, and (d) total reform and resources integration in the ageing stage, may be useful for SME firms’ considerations. Nonetheless, these ‘thematic’ SOs would further necessitate the firm to assimilate strategic application methodology to accompany its strategic posture on change impetuses (Williams et al., 1999). Williams et al also posited that development life cycles for firms involve a series of recycle loops incorporating continuous improvement processes on established/accomplished activities associated with planning and execution corollaries.

Such flow of activities exhibits the design approach of an integrated waterfall model of the steps and phases (Sage, 1992) as also depicted in Figure 2.25. In context of MY-SMEs, the formulation phase observed in quadrant 1, denote the significant implication of innovation orientations on the firm’s strategic postures. Quadrant 2 & 3 instigates ‘deep learning’ with firm’s absorptive capacity by means of establishing SDM & strategy paradigms. As a consequence of ‘sensemaking’ initiatives, quadrant 4 translates the firm’s strategic choices into agency to reform with pertinent implications of its dynamic capability to transform. In turn, this cycle of decision-making process shall be repeated continually throughout the evolution of the business lifecycle.

Figure 2.25: Flow activity in spiral life cycle (Sage, 1992) in tandem with corollary for strategic transformation



Source: Sage (1992) as cited in Williams et al (1999).

#### 2.3.4.2 Self-assessment on the pathways for maturity and business continuity

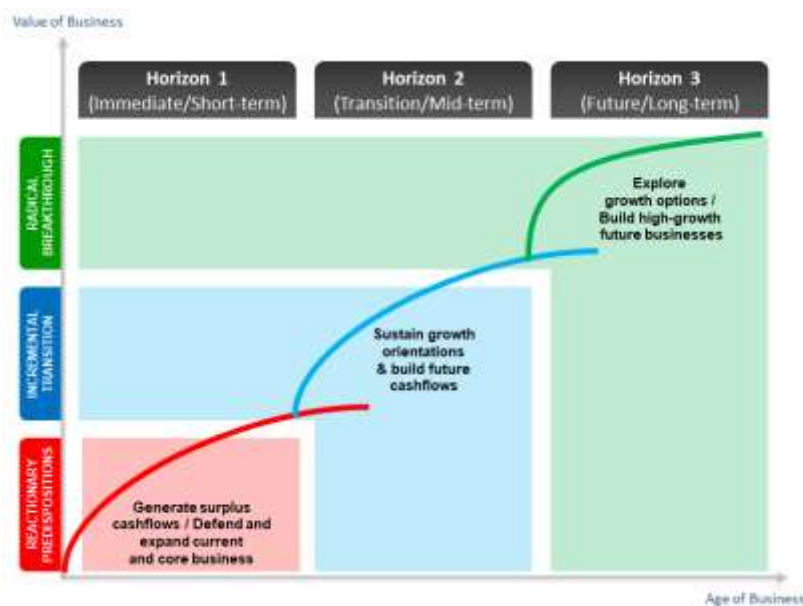
Successful firms exhibit distinct patterns in managing decisions particularly in enduring incremental growth phases. The Alchemy of Growth model coined by Baghai et al (1996; 1999) help firms to better understand the essentiality and stimulus for innovation orientations via explicitly visualising and distinguishing the appropriate strategy and pathways in the form of incremental staircases to propagate value enhancements for the business. More extensively known as McKinsey's Three Horizons of Growth, the model depicts circumstances in which firms are exposed to the impetus and corollaries of building appropriate capabilities and strategic choices as pre-emptive measures in dealing with its strategic posture under the prevalence of growth frontiers as the age of the business progresses.

The significance contribution of this model implied that considerations of developing SOs over three different temporal horizons of short-term (Horizon 1), mid-term (Horizon 2) and long-term (Horizon 3) periods of strategic planning would promote meaningful discourse for effective transformation.

In context of this study, as depicted in Figure 2.26, the pertinent implications of Horizon 3 signifying future or long-term sightedness – creating viable strategic options for growth frontiers entail a radical strategic posture orientation fit. Furthermore, Horizon 2 rationalises

the incremental innovation orientation for transitional transformation initiatives in lieu of developing revenue streams for the business. Notably, Horizon 1 imply the firm retaining its reactionary predispositions via preserving and reinforcing the core business activities to retain value of the business. This in turn may refrain the firm from taking high risks on immediate transformation which entail the firm to conduct ‘business as usual’.

Figure 2.26: Implications of McKinsey’s Three Horizons of Growth in context of managing VUCA in SMEs



Source: Adapted from Baghai et al (2000).

Despite this template being useful to visualise the importance of each dimensions and the specific implementation of SOs for growth against the industry practice time frame of 1-2 years (Horizon 1), 3-5 years (Horizon 2) and 5-10 years (Horizon 3) delivery periods (Blank, 2019), this temporal aspect needs to be reconsidered under prevailing and rapidity of VUCA business environments, particularly post the COVID-19 pandemic era.

Blank (2019) argued that whilst persevering in the quest of continuously running the business and simultaneously exploring new opportunities and capabilities, escalating and rapid pace of change observed in the current era of uncertain futures may put firms at risk of being oblivious and complacent to ensuring the criticality of ‘velocity’ and ‘vector’ of its agency to reform. This in turn may impede sustainability of growth or it may even adjudicate cessation of business for the firm.

On this note, Blank also posited that the Three Horizons model is no longer bounded by conventional practices of strategy and business management timelines. This implies the

stimulus for radical breakthrough and strategic shifts influenced by disruptive future (Horizon 3) may well appear much earlier in the firm's OLC. This entails the emergence of rapid change impetus for strategic posture shifts from current reactionary transformation to prompt abrupt remodeling of the firm's business model in its entirety. Nonetheless, studies addressing this opinion in context of SMEs under threat of VUCA business environments remains scarce.

Conversely, the researcher is of the opinion that the current state of economic volatility and disruptive pace of external environmental turbulence would render SME firms to become more sceptic towards 'investing' time and effort to formalise SF rooted innovation orientations in its SDM process and integrated strategic planning activities. This is due to the fact that owner-managers are burdened with legacy FOs and shortcomings on institutionalisation of structural ambidexterity with SI frontiers.

According to Kyffin & Gardien (2009) innovation frontiers are organised in the form of network (or matrix) of options. Coining the concept of Innovation Matrix, Kyffin & Gardien postulated myriads of possibilities to generate multiple strategic options rather than the more conventional linear approach to managing growth with strategic change and innovation. In relations to the temporal aspect of strategic intervention of firm's prevalence of growth orientations, the reciprocity of strategic problems and opportunities pertaining to strategic regeneration orientation fit offers greater potential for maturity and business continuity. This in turn explicate the necessity of further investigation on pathways and incite the firm to come up with novel strategy for transformation.

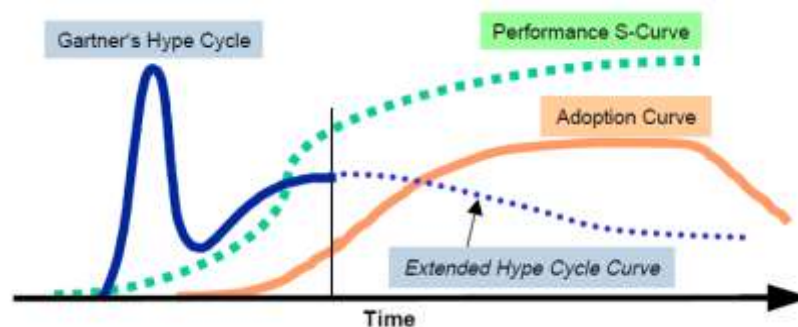
Likewise, effective business decisions would often rely on sound understanding of the evolution of the business economic environment which is driven by advancements in technological (Linden & Fenn, 2003) and information systems (O'Leary, 2008). Additionally, from the extant literature, supplementing theories of change with particular relevance to economic shifts and SI gravitates towards the traditional 'S-curve' curve. The S-curve in principle unite the perspective of disruptive incremental and radical innovation with the aggregation of performance/adoption and periodic events.

However, in context of SMEs' owner-managers understanding of the state of agency to reform, the S-curve do not provide insights into how the prevailing circumstance of change adoption evolves. Linden & Fenn (2003) argued that the Gartner's Hype Cycle model on the other hand, adds dimension to catalyse the understanding of innovation frontier's relevance and maturity/role in a prevailing market conditions or business environments. In industry practice,

the hype curve helps organisations to effectively and efficiently deliberate the most accurate period and stage in its OLC for new technology or radical innovation investment decisions.

Figure 2.27 depict this distinct ‘hype’ curve peak occurring early in the innovation implementation, addressing the decision impetus with decision outcomes counter-effectiveness as the curve dips before normalising with market disruptions. According to Linden & Fenn (2003), in conjunction with charting the maturity of innovation orientations using the S-curve and absorption curve, meaningful anticipation on the outcome of innovation frontiers (or strategic options) over the envisioned age of the business may be established more effectively.

Figure 2.27: Gartner's Hype Cycle and corresponding technology and innovation lifecycle models



Source: Linden & Fenn (2003)

As there are many uncertainties regarding the firm's pathways to accomplish business continuity, the researcher is of the opinion that the pertinent and implicit implications of Gartner's Hype Cycle on SI standpoint for strategic regeneration SDM seems plausible. This further implies that owner-managers of SMEs may also adopt this vantage point with respect to managing SI rooted SOs by virtue of considering the SF and futures implication of warranted crises intervention decisions in specific stages of the firm's OLC to improve the value of the business.

Besides, in context of focusing on SMEs' growth frontiers and SOs, 'prior considerations' of inevitable changes or future determinants in the business environment influenced by SI standpoint shall reflect the level of effectiveness and preciseness on the selection of business decision and planning imperatives on transformation (Safar et al., 2018). This further entails a more robust guidance and preliminary impact assessments of unconventional strategic decisions for SME firms by adopting such perspectives on OLCs.

Whilst White & Samuel (2019) posited that not all innovation and technological frontiers obey Gartner's hype cycle pattern, exploring the understanding of strategy operationalisation and

limitations with a structured approach would help unpack the effective means for the firm's SI orientations. Nonetheless, according to Strawn (2021), firms should rely on semantics (or study of outcomes/meaning) in order to make sense of interchangeability on the multiple patterns of lifecycles data in identifying pathways to create and capture value for business continuity. This would also entail the owner-managers and decision makers in firms with the articulated strategic and growth orientations to make radically smarter decisions concerning the rapidly changing business (Van de Wetering et al., 2021).

This follows that high growth achieved by large corporations during turbulent and crisis-hit economic circumstances are often not fully apparent and regarded as a 'black-box' to SME firms (Caloghirou et al., 2020). Caloghirou et al continued with their strong postulations that when dealing with highly turbulent and crises imposed economic environments, simultaneous implementations of 'fitting' strategy to survive and achieve sustainable growth path must be complemented by exploitation of the economies of scale of its available resources.

In context of SMEs' proactiveness in assessing the novel pathways for its business continuity, the stipulated lifecycle models help firms to increase the level of motivation and understanding of its internal and external growth orientation amidst the blurring boundaries of environmental turbulence and intense competition. According to Dagnino et al (2017) this would also entail firms to better gauge strategic decisions and strategy themes, whilst balancing the scale and pace of its reform or transformation via strategic management of dynamic growth. Inevitably, the modularity of growth frontiers and OLCs would provide SME firms with a more effective combination of strategic postures and strategic choices particularly in lieu of their growth stage innovation orientations juxtaposed with an economic downturn inflicted crises (Bianchini et al., 2016).

***Conclusion #5: Analysis and deliberation of the implications of SI orientation and decision management on the firm's development stage in its life cycle is imperative to achieve effective transformation. The OLC and Growth cycles allow owner-managers to consider the business as a dynamic institution and recognise the time-boundedness of effective decision-making aimed at increasing the value of business.***

## 2.4 Underpinning Theories

### 2.4.1 Contingency Theory

Achieving the critical balance between crises-change with growth-stability in organisational decision-making rely upon the characterisation of underlying assumptions of ‘mapped’ strategy paradigms of the observer or decision maker (Morgan, 2007; 2011). This follows Contingency Theory (CT) implicate that in managing organisations and making strategic decisions, the optimal course of action would depend entirely on the associated consequence of internal and external circumstances. Moreover, upon a particular moment of crisis, managers and decision makers alike are adaptable in choosing flexible and meaningful strategies for their organisations.

According to Morgan (2007) amongst the significant roles and implications of underlying contingency on organisations include: (a) balancing the internal requisites to adapt to environmental considerations, (b) defining clarity in organising and dealing with the most appropriate task at hand, (c) facilitating managerial decision-making and alignment with SOs of the firm, and (d) substantiating the strategic posture of the firm in different types of crises and environments.

In context of this study, with the apparent realities that strategic management practices in SME organisations are indeed intricately complex, it would be essential that the elements of CT are embedded in SDM and SM practices. Önday (2018) postulated that desired organisational reforms must undergo sense-making processes to be able to deal with changes in external environmental demands. SOs on achieving organisational goals are achieved by understanding linkages between the constituent of external environment and organisational goals via assumptions of natural perspectives and an open rationale. This allows SME firms to respond and adapt better in ‘situational’ circumstances they best relate to.

Conversely, Crovini et al (2020) posited that the risk-mindedness of entrepreneurial SME owners strongly correlates to the implication of decision-making outcomes on SOs of the firm. With little or no formalised risk managing processes observed in the majority of SME firms, integrating the phases of decision-making and risk mitigation via novel or alternative approach can help firms improve SDM and introduces a more meaningful discourse on managing risks for crisis interventions.

Furthermore, from Pati et al (2018), the implications of critical internal and external contingencies on the firm's choice of reform with archetypical business model and shifted performance drivers are dependent upon the stages of the firm's OLC. They posited that younger firms would benefit the change to a new business model, whereas the more mature firms would benefit with increased efficacies on managing existing business models. Nonetheless, the ambidextrous decisions to explore novel and exploit current business models contributes to increased performance in mature firms accordingly.

This follows from Vanderstraeten et al (2020) that, SMEs in dynamic or turbulent environments (particularly in emerging economies) would increase performance and be able to intensify its innovation orientations via adoption of contingency model and elements into its strategic planning. The strong correlations between causal and effectual decision-making logics also fosters the possibility of moderating the adverse effect of VUCA and turbulent external environmental circumstances for SME firms. Hence, the researcher is of the opinion that such perspectives on remedial implications of CT would facilitate owner-managers to make better informed decisions and foster alternate pathways on mitigating plausible negative outcomes of implemented strategy.

***Conclusion #6: The ideal strategic posture orientations fit for the firm depends on contextual implications of FO and the prevalence of growth frontiers for the firm.***

#### ***2.4.2 Resource-based View***

In context of this study, Resource-based View (RBV) complements with SME firms' strategic resources which consist of the tangible and intangible assets that the firm can develop and effectively employ. Such resources cater for the firm's employees, property, plant and equipment to generate streams of products and services the business offers and continually needs to grow.

In perspective of the RBV, firms would become more effective in monetising its business value streams with surplus resources available rather than a limited access to establish feasible transactions on employing the firm's owned resources (Teece, 1982; Teece & Kay, 2019).

Furthermore, in context of this study's adoption of the 6C perspectives on integrated resources, the capacity of the firm to utilise its resources to perform specific activities depends solely on the organisational capability to effectively manage its **tangible assets**, which imply the productive use of its: (i) *financial capitals* – cash, loans and revenues, (ii) *manufacturing capitals* – property real estate locations, production equipment and machinery, (iii) *human capitals* – employees and hired workforce. Additionally, the organisational capability to convert inputs to the business and generate value rely on the firm's **intangible assets** which include: (iv) *intellectual capitals* – representing the firm's proprietary knowledge, unique branding and skillsets, (v) *social/networking capitals* – extended involvement from external stakeholders (i.e., channel partners, suppliers and customer bases), and (vi) *natural/resources capitals* – availability of raw materials and early components of generating value offerings.

Rastrollo-Horrillo & Rivero (2019) posited that the importance of integrating firm's resources into strategic planning activities would advance policymaking on its innovation orientations and cater for harsh contexts in its strategy implementations. This is because scarcity of resources and/or mismanagement would render the firm's business environment, growth frontiers and business continuity to be acutely vulnerable.

According to Muda & Rahman (2016), with the rise of 'Knowledge Economy', SMEs are required to embed an integrated resources approach on its capitals in order to compete in turbulent business environments. Besides, the different stages of OLCs would entail SME firms to adapt and operate its business differently. This means that SME firms must be able to distinguish the strategic and integral role of its 6C in relations to its OLC stage to gain maximum advantage for value creation over its strategic growth orientations.

Therefore, the researcher is of the opinion that under the perspective on RBV, the implications of 6C contribute to rationalising the firm's agency to reform under the prevalence of its growth orientations. Subsequently, the legitimacy of transforming with anticipated development of strategic postures of the business under threats of VUCA and turbulent external environments helps owner-managers to improve SDM and instigate stewardship with internal stakeholders (Camilleri, 2018) and would more effectively drive the firm forward with ownership and dynamic capability.

**Conclusion #7: The 6C integrated capitals perspective qualify as strategic resources with the firm's agency to reform under its prevalence of growth frontiers.**

### **2.4.3 Dynamic Capability**

Past research has contributed significant definitions of Dynamic Capability which has also been a central focus of research in the field of strategic management (Barreto, 2010). Dynamic capabilities as defined by Teece et al (1997) is the firm's ability to combine, develop and modify its internal and external resources in order to respond to rapidly changing environment. Conversely, Eisenhardt & Martin (2000) posited that dynamic capability of the firm determines its ability to employ and create new resources to drive market shifts to benefit the business.

In context of this study, the underpinning perspective on dynamic capability help explain the firm's agency to reform in a rapidly changing environment with strategic postures and growth orientations. Moreover, in order for firms to cope with different and completely unfamiliar environments, it would be vital for the firm to adjust itself with the prevailing market situations by developing specific capabilities and continuous learning (Samsudin & Ismail, 2019).

Conversely, the underpinning concepts of RBV help explain the basic constituents of value creation and growth strategy for the firm. However, under prevalent crises and turbulent environments limitations to strategic issues explorations can only be efficiently overcome via extension of strategic options by taking advantage of dynamic capabilities of the firm.

Ambrosini et al (2009) argued that the lack of deconstructed interpretations on archetypical types of 'incremental' and 'renewing' dynamic capabilities inhibits managerial perceptions of the changing environments. This follows that the two distinct attributes of dynamic capabilities are commonly adopted by organisations to continually improve the level and availability of strategic resources.

Despite the firm being able to better manage its resources, the SI rooted strategic postures for reform via explicating effective SDM and strategy paradigms remain unobserved. Ambrosini et al continued to posit that in a rapidly changing and dynamic environments, specific focus must be employed on the way firms need to modify and extend 'regenerative' dynamic capabilities in order to navigate the agency to reform with strategic change pathways.

Furthermore, managerial and organisational processes fundamentally provide the firm with mechanisms to effectively deploy and employ dynamic capabilities (Helfat et al, 2007). In turn, owner-managers of the firm may be able to better perceive disruptions and counter with a more appropriate and improved relevant dynamic capabilities.

Additionally, according to Teece (2007), the contextual applications of dynamic capabilities may benefit entrepreneurial firms on: (i) *sensing changes* – with strategic analytics on the implications of external environment caused disruptions, (ii) *seizing strategic opportunities* – via effectiveness of integrated resources management and capitals deployment; and (iii) *continuously transforming* or reforming the business – with SI and SF rooted SOs under the prevalence of growth frontiers. Nonetheless, in terms of observed implications of dynamic capabilities on strategy-making processes in SME firms, the removal of decision-making barriers complemented by a ‘deep-learning’ policymaking on SO pathways would lead the business and its owner-managers to a more sustainable and consistent ‘regeneration’ of its growth and economics (Teece, 2019).

Furthermore, from Collis & Anand (2019), it would be essential for firms to also realise the limitations of dynamic capability’s effectiveness, particularly when making pragmatic decisions on the tradeoff between exploitation and exploration of strategic options and opportunities. This follows that inherent limitations of implementations are indeed similar to traditional strategy executions, with plausible negative outcomes on selected strategic priorities. For instance, in building new capabilities in a turbulent environment, the firm may be required to dispose legacy sources of advantage which used to help sustain the business in its previous lifecycle. This may destabilise the accrued value of the business whilst in pursuit of a novel strategic posture and may render the strategic choice to be inefficient.

On the other hand, enhancement of dynamic capabilities triggers the firm’s adaptability and innovation orientations via development of new operational frontiers for the firm which also leads to ensuing value capture and growth (Ferasso et al., 2017). In fact, and according to Nedzinskas et al (2013), the positive interaction between dynamic capabilities and organisational orientations (or FO in context of this study) in a VUCA and turbulent environment, facilitates effectiveness in its strategic transformation and strategic deployment of the firm’s tangible and intangible resources.

The researcher is of the opinion that besides aiding firms to foster business continuity and thriving in highly uncertain and turbulent environments, the underpinning concept of dynamic capabilities facilitates a more meaningful discourse on how SME firms may avoid mortality and relentlessly establish exceptional growth frontiers in highly uncertain and volatile markets.

With complementing absorptive capacity of the firm and owner-managers’ ability to integrate ambidexterity in SDM processes, the contextual implications of sensing, seizing and

transforming would proactively lead the firm to accomplish organisational transformation and business regeneration even in periods of radically shifting environments (Fernandes et al., 2017) throughout its OLCs.

***Conclusion #8: Strategic Regeneration orientations fit for the firm depends on its dynamic capabilities which enables the firm to identify the most optimal strategic choice for strategy implementations.***

## **2.5 Implications of Past Research on ‘Strategic Renewal’ to the Study of “SME Strategic Regeneration”**

Successful regeneration during a recession period was thought to be achieved when companies exhibit improved turnovers and profit figures (McFadyen, 1983). Despite the evident adoption of multi-strategy on transformation with emphasis on adoption of efficient systems and technological frontiers, the underpinning corporate success were only relevant to large organisations. Moreover, the positive corollaries of SDM for larger enterprises with surplus of available strategic resources are of no match to SME firms in general. This follows larger corporations are able to undertake acquisitions and disposals of an entire business stream or division to improve the management of contingencies in their accounting reports (Abba et al., 2018) whilst also having the privileges of credit trading for profits on some accounts. In fact, discussion on this topic on ‘regeneration’ specifically on SMEs per se from the extant literature remains scarce.

Nonetheless, the phenomenon of organisational transformation and processes of change during economic turbulence presents both opportunities and challenges to the firm (Agarwal & Helfat, 2009). Accordingly, Agarwal & Helfat posited that successful strategy imperatives on strategic renewal would also involve multiple dimensions of factors which include market dynamics, decision-making and strategy-making processes, firm resources and capabilities, as well as the optimum organisational structure and skillsets. This follows that the firm’s strategic renewal capability is directly correlated to its dynamic capabilities to reconfigure its structure (which also comprise the firm’s internal resources, preparedness and inertia) for sustainability and adapt with the changing business environment (Helfat et al., 2007).

In context of this study, 8 major conclusions have been drawn from the literature review on SM, SF and SI, including the underpinning theories related to contextual relevance of strategic renewal implications for SME Strategic Regeneration. Table 2.6 describes the derived conclusions which can be used to define the nascent development on this domain and body of knowledge and guide this study's research design.

Furthermore, the contextual significance and contribution of identified research streams can be interpreted into four basic rationales for building a holistic decision-making framework for managing growth uncertainties and market volatilities comprising of: (1) ***Establishing strategic posture on VUCA environments and crisis interventions*** (Conclusions #1, #2 & #6); (2) ***Improving the management of strategic decisions and integrated resources*** (Conclusions #2, #7 & #8); (3) ***Developing proficiency and focus on future strategic orientations*** (Conclusions #3, #4 & #6); and (4) ***Implementing time-bounded pathways for strategy paradigms*** (Conclusions #2, #5 & #8).

Table 2.6: Overview of derived conclusions from extant literature review for this study

Past research streams and literature contributions	Contextual significance to MY-SMEs and the study	Derived conclusions and implications of 'strategic renewal' for research on SME Strategic Regeneration
<i>FO and key enablers</i> (Conclusion #1)	Organisational ambidexterity; Risk management	MY-SMEs need a concise, yet comprehensive and clear approach to SOs and strategy conception fostered by proactive SDM & strategy paradigms.
<i>SM standpoint on managing crises interventions</i> (Conclusion #2)	Decision making	SOs and the firm's agency to reform are directly associated with effective SM practices to assimilate SDM and ambidexterity into the strategic planning activity. Efficient frontiers for strategic regeneration correlates directly with institutionalisation of dynamic capability of the firm.
<i>SF standpoint on managing future uncertainties</i> (Conclusion #3)	Environmental scanning; Future preparedness	Deliberations of strategic regeneration pathways (or strategic choices) correlates to ascribed 'Futures Window' based on the firm's strategic posture orientation fit and rooted implications of contextual relevance of the 'Futures Triangle' mapping corollaries.
<i>SI standpoint on managing growth orientations</i> (Conclusion #4)	Continuous improvements; Change readiness	Corroboration of the firm's absorptive capacity and innovation capability are the key antecedent to SI rooted strategic postures to attain strategic regeneration orientation fit with the firm's deliberated prevalence of growth frontiers.
<i>Implications of strategy orientations on Lifecycle &amp; Growth cycles for the firm</i> (Conclusion #5)	Business planning; Business model innovation	Analysis and deliberation of the implications of SI orientation and decision management on the firm's development stage in its life cycle is imperative to achieve effective transformation. The OLC and Growth cycles allow owner-managers to consider the business as a dynamic institution and recognise the time-

<b>Past research streams and literature contributions</b>	<b>Contextual significance to MY-SMEs and the study</b>	<b>Derived conclusions and implications of 'strategic renewal' for research on SME Strategic Regeneration</b>
		boundedness of effective decision-making aimed at increasing the value of business.
<i>Contingencies of decision-making outcomes (Conclusion #6)</i>	Strategy making; Reframing organisations	The ideal strategic posture orientations fit for the firm depends on contextual implications of FO and the prevalence of growth frontiers for the firm.
<i>Strategic resources management (Conclusion #7)</i>	Value stream management	The 6C integrated capitals perspective qualify as strategic resources with the firm's agency to reform under its prevalence of growth frontiers.
<i>Evolution and dynamic capability of the firm (Conclusion #8)</i>	Strategy implementations	Strategic Regeneration orientations fit for the firm depends on its dynamic capabilities which enables the firm to identify the most optimal strategic choice for strategy implementations.

*Sources: Developed by researcher*

Conclusion #1 denotes the research gap in the study of strategy development and framing of strategic decisions for SMEs under threat of VUCA and external environmental turbulence. This gap signifies the two key apertures for strategic regeneration implications on (i) methodological study for SME businesses sustainability, and (ii) the study on strategy components for SME businesses continuity.

The tacit shortcomings on methodological study for sustainability is the deficit in coverage of pathways for decision outcomes on strategic evolutions and transition for SME firms. Unequivocal exploratory studies were established to identify the implications of SOs and strategic renewal on strategic performance of firms in rapidly changing environments (Folkerling et al., 2004; Klammer et al., 2017; Shah et al., 2020). However, strategic renewal of the firm involves multiple efforts by its owner-managers to transform the organisation in response to external environmental shifts, including the initiative to grow and improve the organisation for survival (Phetphongphan et al., 2018; Schmitt et al., 2018; Shah et al., 2019).

The researcher is of the opinion that it would be critical for future research to incorporate multiple perspectives of organisational configurations motivated by sensemaking attributed antecedents to develop foresight on strategy outcomes. This is in tangent with more recent postulations (Herbane, 2019; Shah et al., 2019; Hortovanyi et al., 2021) that strategic renewal

facilitates the firm's internal structuring and coordination for organisational survival and resilience, particularly with FO orientation improvements.

On the strategy components for business continuity, the planar deliberations on causation and effectuation of strategy-making provided a narrow vision on pathways for plausible future implications on strategic corollaries. Despite past empirical research has contributed to new insights on strategic planning and roadmaps to facilitate strategic performance of firms (Schmitt et al., 2018; Shah et al., 2019; Khan et al., 2020).), the lack of lifecycle considerations (Conclusion #5) paralleling with growth orientations driven by rooted implications of the 'futures triangle' (Conclusion #3) remains. Moreover, the account on major antecedents and moderators leading to discernment on consequence of strategy implementations during organisational decline remains fragmented (Bodolica & Spraggon; 2020).

Past research's inductive reasoning has delivered broad generalisation of themes for SME growth and performance. In the case of this study, the most unveiling quest would be to deliver the question of – *"What decisions should MY-SMEs undertake to survive a rapid and discontinuous change?"*. In fact, the developed RQs for this study signify the specific intent to understand the underpinning concepts and outliers to factors and actions outside of the control of conventional practices in making strategy for SME firms.

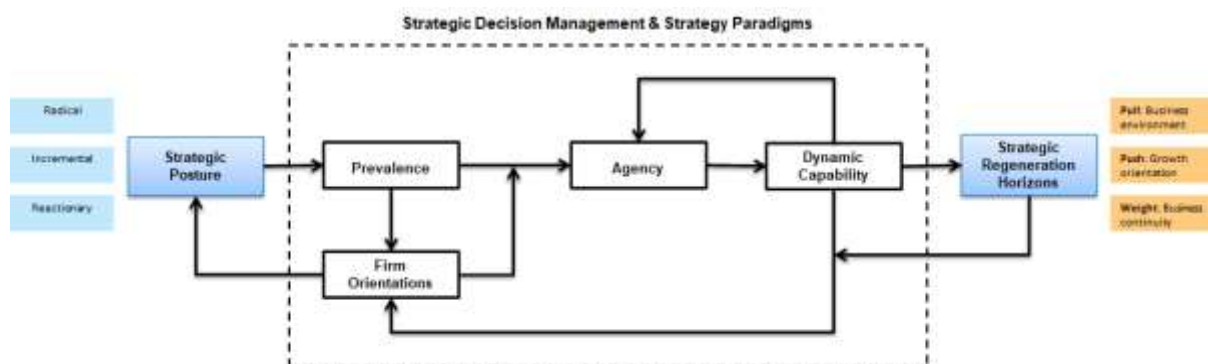
In addition, the rising interest on a more formalised practical and sensible approach to managing strategy frontiers for MY-SMEs firms during economic downturns and particularly VUCA environments, would enable firms to develop and enhance their abilities to respond to discontinuous disruptions. This follows that firms continue to seek new pathways in maintaining business continuity by retaining its competitiveness in markets and renewal of business 'value offerings' (Moretti et al., 2020).

In context of this study, the potential benefit in anticipated discoveries from this research would potentially propagate a common framework that could be employed for both business planning and benchmarking of strategic renewal of SME firms. Besides and according to Klammer et al (2017), the pertinent implications of strategic renewal help foster extended longevity of firms to continuously improve despite the constraints of resources and business environments.

## 2.6 SME Strategic Regeneration Conceptual Framework

Drawing from the issues presented and derived conclusions from extant literature review for this study (Table 2.6), a framework on holistic and sensemaking approach for decision-making on SME Strategic Regeneration was constructed. The framework was based on the six major constructs comprising of: (1) *Strategic Posture*, (2) *Firm Orientations* (FO), (3) *Prevalence*, (4) *Agency*, (5) *Dynamic Capability*, and (6) *Strategic Regeneration Horizons*. Figure 2.28 depicts the framework aimed at crafting holistic decision-making process and best practices with contextual significance to MY-SMEs renewal strategies at the onset of growth uncertainties and market volatilities crises. The framework considers the combined and pertinent implications of underpinning theories and theoretical perspectives for the study as described in the earlier sections.

Figure 2.28: The conceptual framework for Strategic Regeneration



Source: Developed by researcher

### 2.6.1 Framework conceptualisation

Figure 2.28 describes the flow of decision-making logics for SME to respond to external environmental disruptions and turbulent crises. The *Strategic Posture* accounts for SI orientations of the firm to initiate either radical, incremental, or reactionary response to change impetuses in relations to the firm's intended *Prevalence* of growth orientations in/during its crisis induced OLC stage(s). *Firm Orientations* are the key driving force to initiate and steer the firm's *Agency* to reform in direct correlations with its *Strategic Posture* and *Prevalence* of growth requirements. The *Agency* to reform dictates and set goals for the firm to establish operational dynamics of its SM and SI orientations on strategic resources by instigating the firm's *Dynamic Capability*. This in turn would elevate the firm's ambidextrous competencies

and enhances strategic planning initiatives with efficient frontiers on SDM for *Strategic Regeneration Horizons*. Thus, considering SF rooted pathways for transformation pathways which caters for ‘meaningful’ strategy implementations over corollaries to plausible future performance in accomplishing sustainable business environment, growth orientation and/or business continuity. Finally, the sequence of continuous improvement loop to reaffirm and reiterate the *Strategic Regeneration Horizons* and *Dynamic Capability* and ensuring alignment of the *Firm Orientations*, fosters the firm’s strategy-making and decision-making processes to be in precise dimensional consistencies with the implementations of its crisis intervention schemes.

Furthermore, the conceptual development and conception of this holistic and sensemaking SDM framework for SME firms involving contextually meaningful explorative and exploitative internal discourses are focused on bridging the gap in managing strategy dynamics and FO, particularly associated with both ‘young’ and ‘matured’ SME firms in dealing with strategic shifts in their economic ecosystem.

According to Brand et al (2002), empirical findings indicate that SME firm’s business regeneration strategies is highly dependent on strategic shifts in the industry, therefore, it is vital for the firm to adapt to its business environment with considerations of four strategic regeneration arrangements: (1) internally exploitative incremental discovery and learning; (2) externally exploitative capitals and resources deployment; (3) explorative internal development of capabilities and capitals; and (4) explorative external acquisition of capitals and strategic resources.

Conversely, Alves et al (2020) posited five categories of survival strategies focusing on crisis-resilience and renewal at the onset of extended periods of crisis outbreaks encompassing key areas of: (i) operational improvements, (ii) financial control, (iii) management of human resources, (iv) product & services development, and (v) engagement of business networks and channels. Likewise, it is imperative that regeneration strategies are built upon enhanced focus on building crisis-resilience associated with pertinent business implications of: (a) external stakeholders or customers, (b) the value proposition of product offerings, (c) effective financial management, (d) organisational dynamic learning capabilities, and (e) organisational structure and orientations. Alves et al also posited that the ongoing process of crisis management must incorporate continuous improvements to minimise the risk of next or future crisis.

In context of the study's conceived model, this led to the combination and interrelationships between the key constructs described in the framework, which are particularly unique for SME firms to explicate potential scale and scope effects on stages of the firm's OLC at the onset of highly VUCA and disruptive environmental turbulence. The researcher is of the opinion that the correlations and interdependencies of each identified key constructs would help SME firms to infuse resilience and future-preparedness into corollaries of strategic regeneration for sustainability, survival and recovery from prevailing business calamities and discontinuous change.

Besides, the conception and use of appropriate data and measures will lead to improvement in the organisational objectives and enhances the efficacies of supporting role of strategic decisions. This would entail the business regeneration and transformation success to be more systematically accomplished via augmenting the outcomes and patterns of decision-making in SME firms.

From a general perspective, the conceptual framework employs the key constructs and variables and factors as inputs to determine how decisions should be driven based on established holistic data, which in turn establishes meaningful sequence and references for strategic decision frontiers for owner-managers to select and implement as renewal strategy. Thus, providing the strategic options to further develop overall understanding for the firm to perform useful strategic planning and SDM via accompaniment of ambidexterity in constructing strategic choices and strategy roadmaps. In turn, the framework would systematically guide owner-manager in tackling issues concerning the firm's *strategy selection, appraisal and execution*, particularly during economic recessions and business downturns (Latham & Braun, 2011)

In this retrospect, the SME Strategic Regeneration conceptual framework is prescriptive since it provides guidance for SDM in determining the strategic posture orientation and pathways for future transformation and maturity. The framework also caters for strategic and stepwise information-driven requirements to reach each plausible outcome to strategy roadmap for the firm to attain business continuity.

## 2.7 Research Propositions (H)

It was anticipated that effective organisational decision-making and efficient strategy frontiers will have a positive effect on both the strategic postures and strategic regeneration of SME firms undergoing uncertainty crisis and economic turbulence. Moreover, a positive relationship between FO, SDM and strategy paradigms with dynamic capabilities can be expected to propagate sustainability of regeneration and future-preparedness in SME firms via adoption of the articulated research perspectives on SM, SI and SF standpoints.

From the available and gathered stream of knowledge, the following central focus of propositions were made on the basis of starting points for further investigations over limited evidence for this study:

Table 2.7: Overview of Research Propositions (H)

#	Research Objectives (RO)	Research Questions (RQ)	Propositions (H)
A.	RO1: To identify the critical success factors that enable sustainable growth and maturity of SMEs in prevalent VUCA environments.	RQ1: What are the implications of firm orientations (FO) on the (1) business context (prevalence of growth frontiers), and (2) contextual implications (agency to reform) in managing growth uncertainties and market volatilities for SMEs?	<p><b>H1.</b> <i>The FO is to a significant extent, dictated by the firm's prevalence of growth frontiers (Prevalence) at the onset of discontinuous change and external environmental turbulence.</i></p> <p><b>H2.</b> <i>The firm's agency to reform (Agency) is to a significant extent, dictated by the FO at the onset of discontinuous change and external environmental turbulence.</i></p>
B.	RO2: To determine the level of resourcefulness and awareness of SMEs in administering efficient strategic decision-making frontiers.	RQ2: What are the implications of Dynamic Capability on firm orientations (FO) and the business context of managing strategic resources during crisis?	<p><b>H3.</b> <i>The nature of FO response in terms of managing strategic resources at crisis onset via the firm's agency to reform (Agency) is positively correlated with its Dynamic Capabilities.</i></p> <p><b>H4.</b> <i>The firm's agency to reform is dictated by managerial ambidexterity implications on strategic options presented at crisis onset, positively shaped by its Dynamic Capabilities to administer strategic responses.</i></p>
C.	RO3: To identify factors that influence SME's ability and preparedness to respond to growth uncertainties and market volatilities.	RQ3: What are the implications of rooted Strategic Innovation & Strategic Foresight factors on firm orientations (FO) in developing proficiency and focus on SMEs' strategic regeneration?	<b>H5.</b> <i>The firm's choice on future transformation pathways to a significant extent, dictates the FO orientations which will be directly associated with its strategic postures at the onset of discontinuous change</i>

#	Research Objectives (RO)	Research Questions (RQ)	Propositions (H)
			<i>and external environmental turbulence.</i>
D.	RO4: To determine the present decision-making practices and model used by SMEs and introduce a novel and structured intervention scheme for strategic decision management.	RQ4: How would a 'Strategic Regeneration' maturity model impact or contribute to strategic decision-making processes and strategy implementations performed by SMEs in the long run?	<p><b>H6.</b> <i>The firm's SDM on strategic regeneration response at the onset of discontinuous change and external environmental turbulence, specifically its repositioning and reinvention (or transformation) efforts, will determine its post-crises lifecycle stage and business continuity.</i></p> <p><b>H7.</b> <i>To a significant extent, the firm's ability to 'make-sense' of strategy paradigms and implement effective strategic decision management to withstand discontinuous change, external environmental turbulence and lifecycle crises will influence its competency to navigate subsequent impeding future events.</i></p>

Source: Developed by researcher.

A review of literature suggested greatest impact of managing growth and environmental turbulence would entail the development of rapid innovation and firm's readiness to accelerate and stabilise gains via time-bounded proponents to explorative and exploitative opportunities (Chesbrough 2003; Chesbrough et al., 2014). This follows the strategic planning and decision imperatives to establish the optimal organisational configurations in delivering satisfactory or successful transformations via intensified business management and resources allocation activities (Gandia & Gardet, 2019) are indeed vital to drive the right actions for effective strategy implementations. Therefore, with specific relations to **RO1**, propositions on **H1** and **H2** were formulated for this study (Table 2.7).

In a recent study on SMEs firms' preparedness for Industry 4.0 conducted by Moeuf et al (2020), they posited that the lack of expertise to foster innovation and drive organisational inertia to respond to definite changes in the internal and external environment, imposes major risk of failures and limits the firm's progress to establish continuous improvements strategy. In context of this study, in tandem with administering strategic response to discontinuous change with dynamic capability (Teece et al., 1997), facilitating organisational processes and structural

improvements would enhance firm's preparedness to respond to future and imminent crises (Ansoff et al., 1976; 2004).

This articulates the real-time synchronisation of FO with the firm's strategic postures particularly in mitigating lifecycle threatening or business age and value decimation risks via the study's formulated **H3**, **H4** and **H5** propositions. Besides, **RO2** and **RO3** were specifically developed to investigate the firm's ambidexterity and infused strategic capability in sensing change and positioning for a transition.

Propositions **H6** and **H7** on the other hand, considers the specific implication of **RO4** on structural SDM over longer-term appraisals via introducing and institutionalising foresight infused strategy-making practices into SMEs. These propositions and notions were reinforced by the foundations of the 'Futures Triangle' (Inayatullah, 2008) to define the plausibility of recurring strategic shifts, prospective future strategic opportunity or preservation of business continuity for SME firm's to better anticipate intervention schemes and strategic pathways dependencies of future uncertainty and external environmental turbulence (Ansoff et al., 2004). In turn, these processes would allow SME firms to assimilate 'useful' learning and innovative actions driven strategy for perpetual strategic regeneration impetuses.

## **2.8 Summary of the Chapter**

The objective of this chapter was to derive important conclusions linking extant literature via extensive discussions on underpinning theories and theoretical implications of applied perspectives for the research purpose and objectives. For this study, the major standpoint for Strategic Regeneration involves key emphases on: (i) SM – organisational ambidexterity, SDM and strategic planning; (ii) SI – the firm's radical, intermittent and reactionary predispositions; and (iii) SF – establishing corollaries on growth orientation, business environment and business continuity.

The literature review commenced with discussions on reframing of MY-SMEs awareness and firm orientations to build foundations for its agency to reform motivated with the prevalence of growth frontiers at the onset of managing VUCA and external environmental turbulence. This further entailed the subsequent deductions made from contributions of identified research streams to develop the first basic rationale on conceptualisation of holistic decision-making

framework for managing growth uncertainties and market volatilities via - *establishing strategic posture on VUCA environments and crisis interventions*.

Secondly, the determination of the process and practice of making ‘meaningful’ decisions to elicit effectiveness of SDM in managing integrated resources contributed to the proponents of managing business continuity at the onset of discontinuous change disruptions and crises during specific stage of the firm’s lifecycles and growth cycles. This had brought about the second basic rationale of – *improving the management of strategic decisions and integrated resources* for strategic renewal.

Moreover, taking account of lifecycles promotes the firm’s awareness and ‘sensemaking’ ability to – (a) sense and deal with turbulent crises: advocates planning and enhances adaptability, (b) process structural decision patterns for sustainability: outlining opportunities for transitions, and (c) assess the potency of pathways for maturity and business continuity: provide sense of direction and approach on regeneration.

Based on the seminal works of Ansoff (1979), Ansoff et al (2004), Slaughter (1997) and Inayatullah (2008), the extant research streams contributed to the fundamental capability for firms to gain purview of future paradigms on strategic choices orientations. This translates to improving the efficacies on implementing regeneration strategies with the third basic rationale via – *developing proficiency and focus on future SOs* in developing responses to strategic issues at the onset of discontinuous change and future uncertainty.

Furthermore, with underpinning concepts of contingency theory, RBV and dynamic capability, the seminal works of Teece (1997; 2007) and Greiner (1972; 1998) contributed to the study’s conceptual synthesis on – *implementing time-bounded pathways for strategy paradigms* which formed the fourth basic rationale for development of a holistic decision-making based on foundations of **strategic regeneration conceptual framework** (as seen on Figure 2.28) and strategy-making processes renewal in MY-SMEs firms.

Finally, this chapter concludes with asserting seven research propositions (H) signifying linkages and appraisals made on the contextual relevance of past research. The propositions or suppositions (as seen in Table 2.7) were formulated to evaluate the study’s aims and to determine major gaps within the SME knowledge and praxis concerning: (a) strategy-making, (b) SDM, (c) dynamic capability, and (d) future-preparedness.

## Chapter 3: Research Design & Methodology

### 3.1 Preamble to Using Qualitative Case Studies

This study proceeded with an academic oriented research methodology to discover patterns in decision making imperatives and to systemise discovered processes for reliable practice in context of SMEs in Malaysia. To explore the explicated domain for SMEs which is relatively new and with limited extant references, exploratory qualitative methods were selected based on past research recommendations (Stake, 1995; Merriam, 1998; Yin, 2003; Voss et al, 2008).

Creswell & Poth (2016) outlined five popular types of Qualitative Research which include: (1) Ethnography, (2) Narrative, (3) Phenomenological, (4) Grounded Theory, and (5) Case Study. Data gathering methods of conducting interviews and observations are similar in all types of qualitative inquiry. However, the major difference lies in the purpose of the study, and implications of research paradigms on anticipated outcomes.

This qualitative research attempted granular focus into what ‘actually happened’ and was directed by the review of applicable theory completed in (Chapter 2). As posited by Yin (2003), this allowed further reconciling of key management constructs to define this study’s case studies methodology used to meet the empirical research aims and objectives described in Chapter 1. Conversely, instead of engaging in such research without predefined assumptions or hypotheses as suggested by Eisenhardt (1989), the researcher adopted grounded theory method (Glasser & Strauss, 1967; Strauss & Corbin, 1998; Charmaz, 2006) to identify key constructs and continuous interplay of patterns with multitude general implications towards SME strategic regeneration.

Grounded theory which is a qualitative research design allowed the generation of theorised process or interactions by correlating gathered information from sources of key informants (Strauss & Corbin, 1998; Creswell, 2007). Additionally, because past research has established knowledge on ‘managing change’ and ‘future-preparedness’ in companies, the study adapted conceptually descriptive approach with directive questioning (Strauss, 1987) in tandem with ‘constructivist’ approach (Charmaz, 2005) to introduce - *an alternative and complementing perspective into the perpetual dialogue of managing external disruptions and growth/maturity by virtue of strategic regeneration.*

Moreover, as evident in the literature review, this study's investigation on SME strategic management practices in managing external disruptions and discontinuous change require interpretive approach with reflexivity on grounded theory (Charmaz, 2000) backed by systematic procedures applied by Strauss & Corbin (1998) to fit academic rigour on which we can build and use to guide future research. In retrospect, the researcher aimed to build upon prior knowledge and available constructs and establish empirical evidence to fill in the lacunae with increased understanding of the respective research domain.

Further considerations on the best suited approach to perform inquiries with key informants for this study was based on Creswell's (2007) stipulation conveyed in the following Table 3.1: -

Table 3.1: Comparison between five different qualitative methods

Method	Focus	Unit of Analysis	Sample Size	Data Collection
Ethnography	Context or culture	Common groups	—	Observation interviews &
Narrative	Individual experience & routine	Individuals	1 to 2	Stories from individuals & documents
Phenomenological	People who have experienced the phenomenon	Several common individuals	5 to 25	Interviews
Grounded Theory	Develop a theory grounded in field data	Process, actions or interactions	20 to 60	Interviews, then open and axial coding
Case Study	Accounts from organization, entity, individual, or event	Event, program, or activities	—	Interviews, documents, reports, observations

Source: Adapted from Creswell (2007)

### ***3.1.1 Exploring practitioner-based qualitative research perspectives.***

The iterative process of conducting literature review to gain an in-depth overview of various issues related to the topic of this study was instrumental to the development of key relevant constructs. The breadth of scope on perspectives for strategic regeneration conceptual framework adopted a practitioner-based qualitative inquiry and was coherent with it being a powerful means of investigating instructive policies in organisations to recalibrate conventional management practices (Campbell & Groundwater-Smith, 2010; Somekh & Zeichner, 2009).

Arising from the need to distinguish between academic writings to pedagogic research in social sciences (Cochran-Smith & Lytle, 2015), practitioner-based approach is uniquely characterised with on-point view on prerequisites for evaluation and improvements (Campbell & McNamara, 2009). Whilst Greenwood & Levin (2000) argued that qualitative research in such arena lacks the linking between theory and praxis, alignment of purposes from past scholarly works on action research suggested enhancing professional practices with improvement and effective change.

For this study to effectively progress, it was essential for the research process to be conducted in a *strategic management practitioner's vantage point* and performed in ongoing strategic shifts occurring in SMEs in growth or maturity transitions. And as there exist an intricate delivery of relationship to gain expressive views on the RQs with research participants, grounded methodology facilitated an opening with adaptation to the context (Drake & Heath, 2010) for meaningful discussions and responsive evaluations (Carr & Kemmis, 1986, Stake, 1995) on the ever-prevalent topic on managing disruptions in targeted and growth appetent SMEs.

### ***3.1.2 Setting-up the research with a thematic investigation***

Engaging in organisational problem-solving in context of 'expansive' learning (Engeström, 2001) with firm's experiential learning on building competence with validated knowledge on practice (Eraut, 1994) was particularly emphasised. This study was performed using templates and matrix analysis techniques to capture and identify emerging themes (Burton & Galvin, 2018).

Past scholars argued that thematic evaluation in research introduces new area of locus and focus for academic deliberation and enquiry into business and management field (Cassell et al, 2005; Lee & Cassel, 2013). Whilst consensus on compiling systematic observations and making sense of arising ideas and theories remain vital to establish proper research execution (Bryman & Bell 2011; Easterby-Smith et al. 2012; Saunders et al, 2012), from the study perspectives, various influences and constraints arising from key informants and their organisational environment (Stablein & Frost, 2002; Guthrie, 2007) played a significant role in the conduct of research for this study.

The opinions of key informants differ according to viewpoints and commitments, hence in this qualitative management research, to address highly inter-dependent strategy process and issues

effectively and accurately from interviewees' observations (Cassel et al, 2005; 2006), analysis templates for qualitative investigation were considered as suggested by Langley & Abdallah (2011). This entail adoption of grounded theorizing and visual mapping approach to further generate sense-making for extraction of valuable information (Langley, 1999) particularly with the use of semi-structured questionnaires.

The 'fluidity' of selected qualitative research method for this study exhibiting interpretive characteristics (Denzin & Lincoln, 2005) was complemented by epistemologically flexible approach with distinctive template and thematic analysis (Crabtree & Miller, 1992). This was also reinforced using template analysis structure (King, 1998; 2004) developed for management and organisational studies (Burton & Galvin, 2018).

According to King & Horrocks (2010), thematic analysis is vital to ascertain key information from recurrence and SME participants accounts on events relevant to the RQs. This study's choice of research method reflects this exceptional rigour with 'a priori' knowledge (Crabtree & Miller, 1999; King & Brooks, 2017) and precisely accounts for 'temporal' data gathering to succinctly validate this study's ROs.

### ***3.1.3 Justifications for using Case Studies.***

Case study method was particularly suitable to provide valuable insights as a research tool to help measure and record behaviours rather than relying purely on verbal information from conducted surveys (Yin, 2003). By acquiring additional and relevant information from secondary sources and observations, case studies provide meaningful account of events (Kidder & Fine, 1987) and generate theory upon unveiling situations (Harris & Sutton, 1986; Gersick, 1988; Eisenhardt, 1989). Conversely, using case studies was significant in advancing a field's body of knowledge (Merriam & Tisdell, 2015).

Despite perpetual arguments that case study methods do not explicitly represent samples and are prone to oversimplification of yielded results (Campbell & Stanley, 1966; Campbell, 1975; Feagin et al, 1991), this study focuses on the rich description of the contextually derived problem statement and salient characteristics of case subjects to establish rigour as suggested by Hsieh (2004). This allowed the research to establish relevant parameters to meet the established objective of the study, thus, reinforcing already established knowledge from past research (Creswell & Poth, 2016; Idowu, 2016). In turn, this also allowed flexibility in the researcher's determination of procedure for heuristic data extraction (Merriam, 1998;

Denscombe, 1998) and to nominally stretch efficient boundaries of the qualitative debate on specified research domain (Miles & Huberman, 1994).

Following adopted categorisation of instrumental approach to accomplish purposeful inquiry on SME strategy-making practices by virtue of collective case study (Stake, 2005), coordinated data from multiple sources helped realise meaningful observations. This accentuate and further expanded analytical generalisation of theoretical constructs for SME strategic regeneration conceptual framework. This was true because the case method substantiates both theory building and testing (Yin, 2003; Eisenhardt, 1989) and particularly useful when definition of constructs are uncertain (Mukherjee et al., 2018).

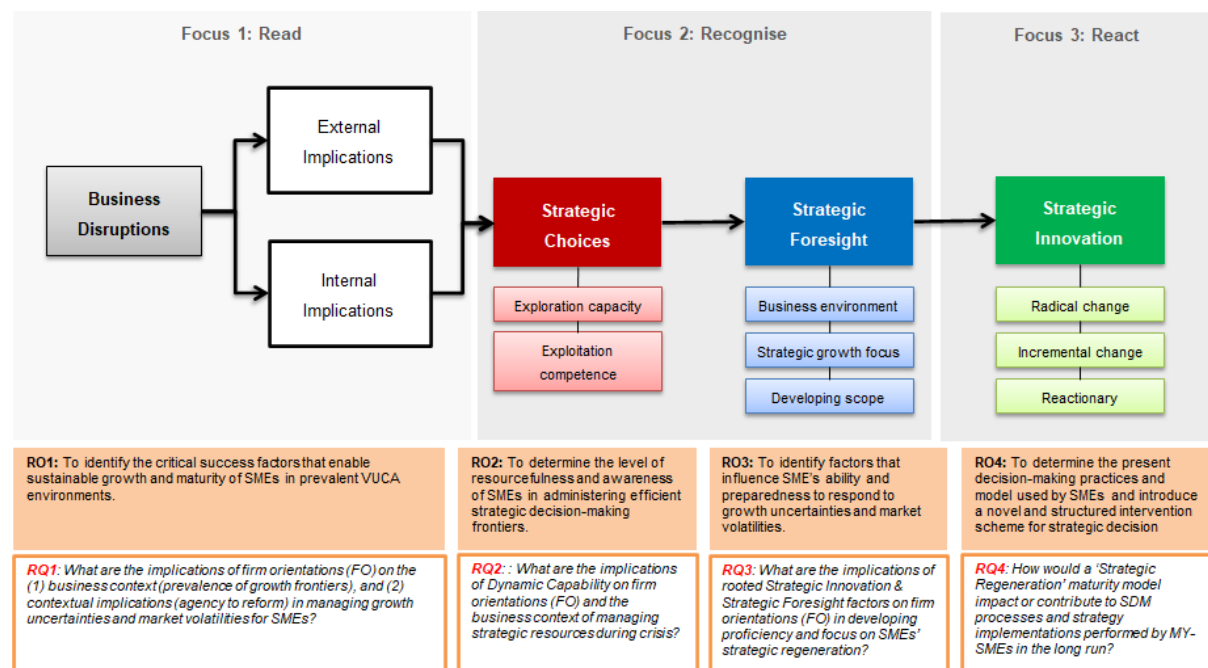
Meredith (1998) suggested rationale on case research strength using questions postulated by Benbasat et al (1987) for appropriateness of case method. This exploratory research corroborates that it: (1) requires natural setting for meaningful insights, (2) focuses on contemporary events for relatively full understanding of the complexity of indeterminate disruption phenomenon, (3) substantiates no control or manipulation of compelling events and its key informants, and (4) attests to the notion that theoretical base of the investigated concept is limited and not yet mature.

Moreover, using case studies supports a more credible intent with this study particularly when dealing with SME owner-managers rather than engaging purely with theoretical discussions (Hsieh, 2004; Levy & Powell, 2004). This follows that SME owner-managers are strictly interested in results of suggested or proposed interventions and drawing generalisable conclusions from the results rather than considering hypothetical recommendations and action plans (Voss et al, 2002).

## 3.2 Overview of the research workflow & approach

The research workflow goal was to investigate the impact of external environmental disruptions on strategic decisions and operational strategies of SMEs during the period of **2019-2021**, whilst simultaneously exploring applied and practical approach to making strategy. To further extricate information from the intricacies and delicate nature of decision-making practice of SMEs, this study adopted the research flow and focus of inquiries shown below in Figure 3.1, which was derived by combining the key constructs of a firm's absorptive capacity (Cohen & Levinthal, 1990; Huber, 1991), practical strategic analytics (Kunc, 2019), structure of decision management systems (Taylor, 2012) and diagnostics for strategic decision making (Thompsen, 2017) with corresponding RQs:

Figure 3.1: Outline of research flow and focus of inquiries



Source: Developed by researcher

Addressing stipulated inquiries based on the established major research standpoints, the research shall take a deep-dive into three areas of strategic focus: (a) **Focus 1 (read)** - commenced with exploration and determination of firm's absorptive capacity pertaining to knowledge and abilities to recognise external signals based on past experiences and response initiatives with strategic imperatives to gain advantage (Cohen & Levinthal, 1990). This would allow this study to assess the correlations between external disruptions and absorptive capacity and determine organisational responsiveness to change stimulus on managing the downturn or

crisis for implicated SMEs (Zahra & George, 2002, Liao et al, 2003; Kamal & Flanagan, 2012), (b) **Focus 2** (*recognise*) - engages the perspectives of strategic planning involving *leadership/management, strategy* and *value creation* as SMEs are arguably more flexible and agile without much need of substantially complex planning as compared to large corporations (Kraus et al, 2007). Strategic analytics (Kunc, 2019) approach on determining SMEs' conceptualisation of indeterminate uncertainty and environmental scanning abilities (May et al, 2000) were taken into considerations to provide a generalised structure for assessment of strategic planning activities in correlations to recovery decisions processing (Applegate et al, 1986; Taylor, 2012), and (c) **Focus 3** (*react*) - exploring dilemmas with strategy implementations and exploitations of decision imperatives amidst SMEs' generally short-term focus (Mazzarol, 2004) and making use of policies set by company owners (Gibb, 1993) for purely rational decision-making (Robinson & Pearce, 1984). These area of investigations were essential to establish veritable benefits and contextual implications of strategic planning in SMEs for longer-term positioning (Reid, 1989) by continually managing discontinuous change.

### **3.2.1 Research approach**

Given the select nature of probing RQs, qualitative and multiple case study approach (Stake, 1995; Yin, 2003) of action oriented (McNiff, 2016) was chosen to investigate organisational & business practices associated with *strategic regeneration* impetuses, as well as causal relationships between strategic decision-making and future-preparedness.

The suggested exploratory case study research design considerations were deliberated to obtain the reality and meaning of prevailing phenomenon (Ticehurst et al., 2000). This allowed the study to explore situations in which driven interventions being evaluated has no distinct or single set of outcomes (Yin, 2003) with greater cross-cultural understanding towards the investigated domain for scholastic business research (Fletcher & Plakoyiannaki, 2011).

Established analyses from case study implications facilitated the re-formulation of key constructs and guidelines for subsequent actions (Carson et al., 2001). This further ensured the validity and generalisability of the research to uncover impenetrable obscurities associated with SMEs' organisational routines against data saturation (Saunders et al., 2017) via reflective activities pursuit. Respectively, a select group of SME participants from identified industry/sectors for this research were a fitting criterion for the chosen qualitative method. Anticipated sampling of minimum 10 participating SMEs with corresponding *10 to 20*

interview respondents from line, middle and senior management levels were sought via: (a) face-to-face meetings as priority invite option, and (b) conducting ‘virtual’ face-to-face sessions using Zoom or Microsoft Teams applications being part of COVID-19 pandemic new-norm practices. Both method of undertaking the interview exercise presented key advantages and challenges which will be discussed in Chapter 5.

Primary data gathered through consented semi-structured interviews with aided semi-structured questionnaires were carefully analysed using within-case and cross-case techniques to explore data complexities and representations against actual practices (Miles, 2015). Additional secondary data was gathered from observation notes, company websites and/or provided company documents with official consent from the firm’s management to ‘make-sense’ of the dataset and promote information triangulation and prevent sole reliance on semi-structured interviews (Yin, 2003). Transcripts generated from completed qualitative interviews were analysed with coding using MS Excel software for a relatively straightforward interpretations and content analysis process and to ensure the researcher’s familiarity of using codified analysis tools and cost-effectiveness (Ose, 2016; Bree & Gallagher, 2016) in conducting this study.

### ***3.2.2 Key Constructs & Variables***

#### ***3.2.2.1 Definition of the variables***

For this study to effectively commence with data collection, the key constructs were translated into operational definitions to measure contextualised attributes of each construct and derive relevant findings from interviews with key informants. Furthermore, the individual constructs were also established as measurable or testable elements to explicate theory-based data analysis for this study which was based on social sciences methodologies (Aneshensel, 2012).

Table 3.2 describes the major variables investigated in this study with associated indicators to infer the importance and intensity of the key constructs in empirical settings (Singer, 1982) and particularly within the context of SMEs’ arena. In relations to the study, these are ‘causal’ indicators which stemmed from the review of extant literature on SM, SF and SI major standpoints for this research, to help generate a data set for the study to validate the actual phenomena of interest.

These ‘causal’ indicators foster conceptual coherence within the stipulated framework and impose structural implications on latent variables (Bollen & Bauldry, 2011). For instance, in defining the corollaries of Dynamic Capability on Strategic Regeneration and FO, the ensuing phenomenon of ambidexterity (Processing), SDM (Positioning) and strategic planning (Pathways) would be causal indicators of Dynamic Capability.

Furthermore, in context of SME Strategic Regeneration, the established variables and indicators shall be further verified with asserted relationships via formulated propositions (H) for this investigation. However, in the essence of time and focus of the study, correlations with prominently established alternative indicators of the same phenomenon as applied for multitrait-multimethod analyses (Campbell & Fiske, 1959; Kenny, 2021) were not accounted for.

Table 3.2: Major variables investigated in this study.

<b>Constructs/Variables</b>	<b>Type of Variables</b>	<b>Associated Indicators</b>	<b>References and key influence</b>
<i>Strategic Posture</i>	Control Variable	SI orientations - <i>radical; incremental; reactionary.</i>	Ceptureanu (2015; 2015a); Spithoven et al (2013); Caetano & Amaral (2011); Christensen et al (2005).
<i>Strategic Regeneration Horizons</i>	Consequent Variable	SF orientations - <i>business environment; growth orientation; business continuity.</i>	Hortovanyi et al (2021); Meyer et al (2020); Shah et al (2019); Sarpong & Meissner (2018); Rohrbeck et al (2015); Curry & Hodgson (2008); Inayatullah (2008).
<i>Prevalence</i>	Rival Dependent Variable	Prevalence of growth frontiers - <i>policymaking; value capture; open innovation.</i>	Amankwah-Amoah et al (2020); Chesbrough et al (2014); Lepak et al (2007); Delmar et al (2003).
<i>Agency</i>	Focal Dependent Variable	Agency to reform - <i>value creation; transformation; managing resources.</i>	Sollosy et al (2019); Gandia & Gardet (2019); Madrid et al (2009; 2013); Kipley & Lewis (2009a; 2009b); Lepak et al (2007); Eisenhardt & Martin (2000); Ansoff et al (1976).
<i>Firm Orientations</i>	Focal Independent Variable	FO - <i>structure; preparedness; inertia.</i>	De Jorge Moreno et al (2007); Pearse (2017); Bao et al (2011).
<i>Dynamic Capability</i>	Intervening Variable	SM orientations - <i>ambidexterity (Processing); SDM (Positioning); strategic planning (Pathways).</i>	Elbanna et al (2020a); Kunc (2019); Collis & Anand (2019); Ferasso et al (2017); Jarzabkowski & Kaplan (2015); Nedzinskas et al (2013);

Constructs/Variables	Type of Variables	Associated Indicators	References and key influence
			Ambrosini et al (2009); Teece (2007); Martin (2000); Ansoff (1979; 1987); Teece et al (1997);

Source: Developed by researcher.

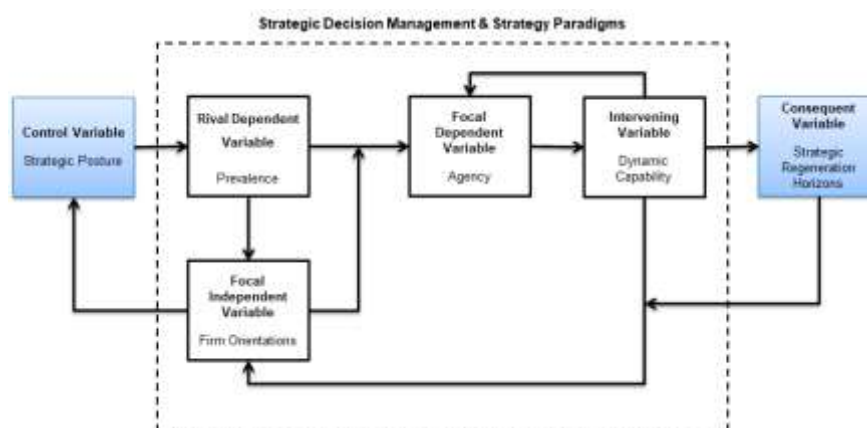
### 3.2.2.2 Operationalisation of research variables

The use of rival dependent variable *Prevalence* and focal dependent variable *Agency* in series implied the outcome or measures that firms would assume which depended on the direct correlations between control variable *Strategic Posture* and focal independent variable *Firm orientations* (FO). The use of rival dependent variable (Prevalence) was rationalised to analyse the substantial magnitude and inertia over constant stimulus of control variable (Strategic Posture) throughout the course and lifecycle stage of strategic renewal action.

Moreover, the FO is also the predictor variable, which will be subjected to manipulations in decision-making processes within the firm. Besides, the focal dependent variable (Agency) influences the occurrence of the consequent variable *Strategic Regeneration Horizons* and covaries with FO and Dynamic Capability of the firm.

Subsequently, *Dynamic Capability* was considered as the key intervening variable (Crossman, 2021) bridging the firm's SDM processes with consequent variable (Strategic Regeneration Horizons) by virtue of direct coherence between the relationships impact from the two upstream focal dependent (Agency) and focal independent (FO) variables. Figure 3.2 below describes the logical framework, depicting the general overview and interrelationships of variables for this study.

Figure 3.2: Overview of the major variables and proposed interrelationships for the study



Source: Adopted from Aneshensel (2012).

### 3.3 Research Design & Strategy

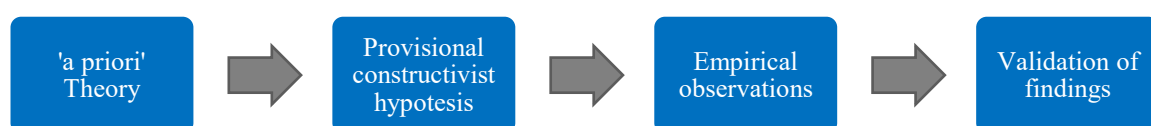
The overall strategy to integrate different perspectives of this study to meet logical sense and coherence was vital to address the study's specified problem statement. The research design for this study was defined specifically to meet the objective of enquiries within the articulated research aims and this was also in accordance with suggestions made by past scholars (De Vaus, 2001; Trochim & Donnelly, 2006). With this adopted design approach, drawing conclusions from gathered empirical data collected would significantly add relevance into this study (Yin, 2003; Bloomberg & Volpe, 2008).

Implications of paradigm selections (Creswell, 2007) described in the following sections were instrumental towards the development of research strategy to perform systematic research sequence for the study, which enabled clarity of thought process and quality reporting of results. Following this, key consideration on the selection of: (i) 'a priori' theory, (ii) unit(s) of analysis, (iii) number and selected cases, and (iv) techniques and methods used for data collection was instrumental for development of critical analysis (Eisenhardt, 1989) for this study.

Rationale for using interpretive/inductive case studies for exploration to address the construct of *dynamic capability* and focusing on proponent of tangible relationship between *delivery success criteria*s propagated deeper understanding on how strategic decision making relate to ambidexterity in managing external disruptions and discontinuous change for SMEs.

Empirical results obtained from thematic case study addresses the thesis objectivity and helped explicate sensible and practical growth/maturity model for SMEs. This includes, amongst others: (1) to examine how the role of strategic management would complement strategy and SDM initiatives in SME organisations, (2) to propose a holistic conceptual framework of dynamic capability relationship with SF for organisational ambidexterity, (3) to empirically test the correlation between SF and SDM for strategic innovation corollaries in SME policymaking & processes, and (4) to promote a practical maturity model for industry best practices within the domain of SMEs' strategic decision management and operations.

Figure 3.3: Research design flow



Source: Adapted from Prasad et al (2001)

Strauss & Corbin (1998) recommended utmost considerations on theoretical sensitivities from multiple sources of literature and *professional experiences* to gain better knowledge on relevant topics. Whilst qualitative research should avoid preconceiving specific theories or propositions prior to data collection, basic knowledge on theory itself is a prerequisite to begin with (Eisenhardt, 1989; Wolcott, 1994).

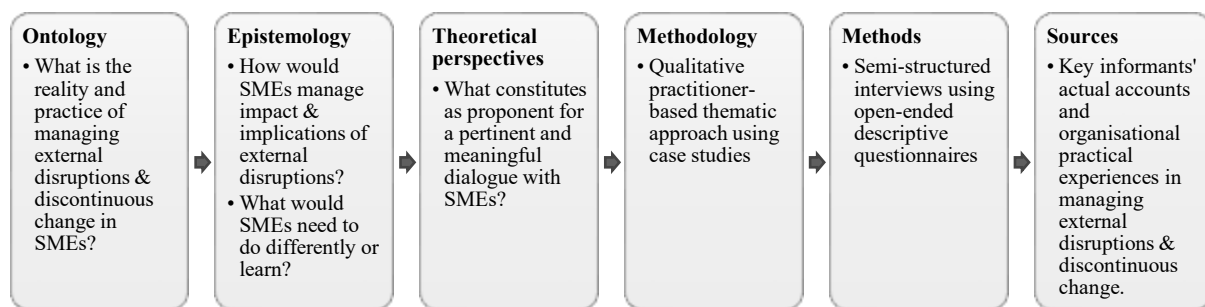
Epistemology was critical to understand practical implications of the study to SMEs, nevertheless, acquiring implicit experience on knowledge with the use of ‘a priori’ theory as described in Figure 3.3 to introduce provisional propositions would benefit this pre-structured inquest (Miles & Huberman, 1994). This would not only allow researcher’s own *professional experience* to be utilised for better grasp on the inquiry, but also prepare justifications for the research outcomes (Kripke, 1980; BonJour, 2005; Devitt, 2005).

In this study, emerging literature on SMEs particularly the contextually relevant extant literature on managing external disruptions and discontinuous change were explored to develop meaningful and descriptive causal framework. This led to structured embodiment of theory into template for analysis which will assist this applied management research (McAvoy & Butler, 2018). The following section shall outline the basis and chosen research paradigm (Creswell, 2007).

### **3.3.1 Research Paradigm**

According to Schwandt (2005) the researcher’s view on reality and knowledge guides a study approach particularly on how it can be investigated to scientifically understand the problems of practice. Positioning this research within the underlying paradigm and flow on philosophical justifications (Figure 3.4) played an important role in outlining key perspectives using suitable methodology to establish broader epistemology and philosophical consequences (Perren & Ram, 2004; Thomas, 2004).

Figure 3.4: Research paradigm justifications for the study



Source: Adapted from Crotty (1998)

Consideration of the philosophical nature of the study was essential as it impacts the quality of the outcome of the research with anticipated highly debated philosophical standpoints regarding knowledge of reality (Easterby-Smith et al., 2012). This follows that the study involving social reality cannot be accurately portrayed due to difference of perceptions and understandings of reality (Crotty, 1998; Cohen et al, 2007; Bryman, 2008).

In management research, Meredith et al (1989) argued on the extremely limited sets of paradigms and emphasised two major criteria on methodology: (a) the rational vs. existential structure of the research process, and (b) the natural vs. artificial basis for the information used in the research. The researcher considered this argument and additional angles of ‘critical theory’ from the four generic perspectives of rational-existential (Figure 3.5) posited by Meredith et al (1989) to adopt an objective ontology perspective on exploring ‘novelty’ and ‘relevant’ discoveries (Easterby-Smith et al., 2004; Meredith et al., 1989) via direct engagements with the subject being studied. In turn, it was important for the study to obtain the reality and meaning of prevailing phenomenon (Tichesturst & Veal, 2000).

This study focuses a strong need to emphasise on objectivity in defining the predictive concept of managing ambiguity with little understanding on the investigated phenomenon of managing external disruptions and discontinuous change in SME organisations. Hence, adopting critical theory research with direct observation on reality could address concerns pertaining to firm’s resources and leadership motivation on strategic decision-making concerning strategy. Furthermore, issues of dynamic competency and policymaking influences on decision-making pertinent to the described major research standpoints for this study could be explicated more effectively.

Figure 3.5: Meredith et al (1989) framework for research methods

	NATURAL ← → ARTIFICIAL		
	DIRECT OBSERVATION OF OBJECT REALITY	PEOPLE'S PERCEPTIONS OF OBJECT REALITY	ARTIFICIAL RECONSTRUCTION OF OBJECT REALITY
RATIONAL ↑	AXIOMATIC		<ul style="list-style-type: none"> <li>• REASON/LOGIC/ THEOREMS</li> <li>• NORMATIVE MODELING</li> <li>• DESCRIPTIVE MODELING</li> </ul>
	LOGICAL POSITIVIST/ EMPIRICIST	<ul style="list-style-type: none"> <li>• FIELD STUDIES</li> <li>• FIELD EXPERIMENTS</li> </ul>	<ul style="list-style-type: none"> <li>• STRUCTURED INTERVIEWING</li> <li>• SURVEY RESEARCH</li> </ul>
	INTERPRETIVE	<ul style="list-style-type: none"> <li>• ACTION RESEARCH</li> <li>• CASE STUDIES</li> </ul>	<ul style="list-style-type: none"> <li>• HISTORICAL ANALYSIS</li> <li>• DELPHI</li> <li>• INTENSIVE INTERVIEWING</li> <li>• EXPERT PANELS</li> <li>• FUTURES/ SCENARIOS</li> </ul>
EXISTENTIAL ↓	CRITICAL THEORY		<ul style="list-style-type: none"> <li>• CONCEPTUAL MODELING</li> <li>• HERMENEUTICS</li> </ul>
		• INTROSPECTIVE REFLECTION	

Source: Meredith et al (1989)

### 3.3.1.1 Ontology selection: Objective Ontology

Theory provides useful resource for generating insight, understanding, and engagement (Kemmis, 2001) with developing structure around a complex phenomenon (Bradbury & Reason, 2001). Viewing it with particular purpose and basic assumptions influenced by the researcher's initial conviction about SME's situation (Jankowicz, 2000), this study continues to adopt relevant characteristics of objective ontology to focus on gathered facts and clarifications than relevance (Beech, 2005).

Uncovering emergent, transformational and processual themes from multiple intangibles and socially constructed realities (Creswell & Miller, 2000; Mertens, 2008), this study positions to be independent from research participant firms and focuses on investigating the extent to which decision making and strategy process is inclusive of SME business practices. These accounts shall be based on solid real facts, by which the knowledge itself may be directly inaccessible (Easterby-Smith et al., 2012).

### 3.3.1.2 Epistemology selection: Critical Realism (CR)

Lincoln et al. (2011) proposed social research paradigms for qualitative inquiry which include critical theory, constructivism, positivism and post-positivism. Whilst post-positivism objective ontology is driven by critical realism as philosophical underpinning (Chilisa, 2011), the catalytic validity by way of strategic angles to justify research endeavour and increase

possibilities of prompting commitment to actions (Bhaskar, 1994) on studied phenomenon was vital (Mertens, 2008; Chilisa, 2011).

Conversely, Pettigrew (2011) raised concerns about the lack of relevance and impact of particularly management research, and Durand & Vaara (2009) argued that constructivism focuses solely on interpreting and understanding the views of social actors and ignores external causation.

In relations to critical theory, CR paradigm developed by Bhaskar (1978) provided avenues to explore causal mechanisms for deeper insights into the study findings by looking into generation of actual event's underlying processes and causalities. Moreover, by addressing the RQs more effectively with dialectical inquiry assisting interlinking of ideas and perceptions (Bhaskar, 2010), adopting a paradigm that incorporates causality could identify antecedents contributing to the observed reality (Guba & Lincoln, 1994).

Consideration on causality is important for the epistemology of this research mainly because real-world problems are characterised by complex, multi-factorial causes with lack of valid and reliable source of data, values (axiology) and processes (Mingers, 2006). It is important to observe differences and the extent of cause-and-effect relationship of identified research variables. This approach would also develop capacity for *prescience* rather than prediction of the phenomena being studied (Hodgkinson & Starkey, 2011).

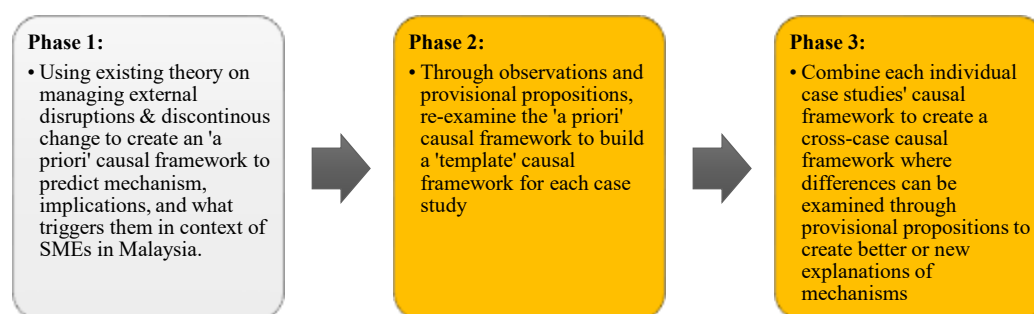
Limitations of CR paradigm as stipulated by Fairclough (2005) is on the lack of analysis of past methods employed and heavy reliance on other sources to effectively apply its methodology. Nonetheless, CR centres around a holistic and systemic worldview, and necessitate transdisciplinary perspectives (Syed et al, 2010; Mingers, 2015) which will allow us to explore the causally effectual real-world in managing external disruptions and discontinuous change with limited access into the real-world of SMEs and key informants of this research.

#### [3.3.1.3 Methodology selection: Inductive approach](#)

Based on stipulated research design flow (as seen in Figure 3.1), this study started with literature and increased focus on diagnostics for SDM processes (Thompson, 2017) in context of business continuity (Hiles, 2010), and strategic analytics for regeneration (Kunc, 2019) in managing downturn. Addressing general issues faced by SMEs (as described in Chapter 1), it

was concluded that SMEs in context of this study were imposed with similar threats of managing external disruptions and illiteracy on ‘future-preparedness’.

Figure 3.6: A critical realist research process adopted for the study.



Source: Adapted from McAvoy & Butler (2018)

Using qualitative inductive case studies justifies the study’s exploratory research nature. In this study, open-ended and descriptive RQs were employed which represent the interpretative epistemology (Creswell, 2007), and backed by CR assumption on subjective knowledge, the emerging nature of this study was able to yield rich understanding of key issues. This was also accomplished via field work involving data gathering and comparing the conceptual model and real world was complemented by ‘causal framework’ template as an optional ‘toolkit’ to guide analysis using the 3-phase process described in Figure 3.6. The referred template was also conceived for qualitative notetakings in the study’s data collection exercise.

The reality persists that management and organisational practice may be of multiple layers (Thursfield & Hamblett, 2004), with deeper structures being unobservable to outsiders. SME owner-managers intrinsically exhibit resistance or reactiveness to innovative combinations of academic knowledge with operational or processual change (Shepherd & Woods, 2014), and this limits the relevance of transformative epistemology to reorient and improve constantly changing practical reality (Mertens, 2008) in such firms.

Contemporary research development on SMEs have also adopted qualitative approaches with small sampling of case studies and interviews as suggested by (Chetty, 1996). While research methods involve meaningful techniques to gather data (Easterby-Smith et al., 2012), relationship between ontology, epistemology, theory and method in management research was crucial to develop practical and theoretical understanding and generate new and alternative concepts.

Moreover, the conception of causal framework-guides derived from ‘a priori’ theory was aimed to provide rigour and establish constructs to guide empirical investigation in this research. Furthermore, empirical observations were substantiated using rhetoric considerations (Firestone, 1987) in RQs and conducted semi-structured interviews to raise understanding and in turn persuade key informants to effectively increase contribution and participation. This follows that idiographic focus of this study’s inquiry, in context of emphasis on being descriptive was aligned with the axiology within SME organisation and its cultural dispositions.

### **3.3.2 Sample and Case Selection**

#### 3.3.2.1 Determining the unit of analysis (UA)

Unit of observation concerns items observed or collected and measured (Sedgwick, 2014), whereas UAs are the focus of study and central topic of discussion upon which RQs and ROs are established (Babbie, 2007). Careful considerations were imposed on selection of concepts and causality for the UA in this study to avoid: (a) *ecological fallacy* (Schwartz, 1994; Jargowsky, 2005) – in which the factors that are associated with SME general industry/sectors may not be associated with findings or outcomes from individual entities, and (b) *reductionism* (Verschuren, 2001; Easterby-Smith et al, 2012) – whereby, components of strategy and strategic decisions impetuses would be exclusive towards sustainable growth/maturity for the firm rather than considerations over the more complex owner-managers’ parsimony being part of the implications and reasons for SMEs’ striving business continuity and sustainability.

Schwartz (1994) argued that cross-level inferences can be related to validity problems and not peculiarly exclusive to be referred to as ecologically fallacious. Hence, adapting this view in this study would in turn be advantageous to expand research boundaries for uncovering causes of failures and interventions to improve future-preparedness and business continuity for SMEs in general. This follows that UA forms a critical basis to guide completed interview and data collection for content analysis using coding processes and developments (Roller & Lavrakas, 2015).

Review on extant literature allowed the researcher to identify three different and complementary UAs which were also used to identify RQs and ROs with elements that are the focus of case study analysis and link explanation to the conceptual framework. For this study, the primary (UA1) considered were particularly rooted to SI standpoint on *Strategic Posture* – (i) *radical*, (ii) *incremental*, and (iii) *reactionary*. Secondary (UA2) which are related to long-

term consequence on growth/maturity, considers holistic evaluation and motivation on applied intervention rooted to SF standpoint on *Strategic Regeneration Horizons* – (i) *Pull: Business environment*, (ii) *Push: Growth orientation*, and (iii) *Weight: Business continuity*. Third level (UA3) research how the practice of SDM and exploring strategy paradigms are established in SME firms in managing external disruptions over time, ascending from the *Agency* to reform crisis impact and occurrence rooted to SM standpoint on Dynamic Capability – (i) Processing (*ambidexterity*), (ii) Positioning (*SDM*), and (iii) Pathways (*strategic planning*).

The use of three levels consideration on UAs were led by complementing development of three perspectives of major research standpoints and dynamic capability as elaborated in (Chapter 2). This would allow central decision-making focal in SME firms to generate and assimilate ‘meaningful’ knowledge from ‘useful’ information (Lybaert, 1998) to manage crises afflicted by external disruptions and discontinuous change.

#### 3.3.2.2 Selecting the cases

According to Eisenhardt (1989) the selection of random cases is crucial to ensure relevance to the RQs. This key criterion for case selection is vital to generate ideas about the construct (Carson et al, 2001), and encourages richer description of the social world for better understanding of issues (Denzin & Lincoln, 2003).

This study adopted a purposive sampling to explicate rich content (Patton, 2002) and subsequent snowball sampling to effectively analyse vulnerable groups and allowed access to susceptible populations (Naderifar et al, 2017). In this research, access to at least one of the senior management representatives who is preferably the owner-manager was a critical consideration for case selection.

A list of SME firms was approached by means of personal networking and extended introduction by the researcher’s personal industry contacts. Ensuing shortlisted companies were then selected based on stipulated delimitations for this study. Following this, the identification and profiling of case firms were carefully done so each case shall contribute to answering the RQs differently (Yin, 2003).

This study commenced with the aim to develop generic maturity model for multitude and multiple growth level SMEs, hence, substantial level of generalisability apply to this research’s case studies selection basis. Subsequently, case selection based on three pertinent areas related to this study on contemporary phenomenon were considered: (a) ***access to actuality*** – SME

sectors afflicted and affected by COVID-19 post pandemic growth uncertainties and market volatilities , (b) *preconception on performance* – industrious SMEs actively seeking after industry driven strategic thrusts to revive business operations and generate business continuity with sustainability , and (c) *quest on quality* – corollary to crisis with intervention impact clusters influenced by technology or market innovation.

This made it possible to evaluate replication logic in which similarity in results with literal replication and contrasting results for theoretical replication fitted to both the RO and phenomenon of inquiry were identified (Yin, 2003).

The study concentrated on three case study impact clusters (see Table 3.3), whereby the identified phenomenon was compared amongst specifically selected SMEs representing five market sectors driven by their respective industry outlook and strategic shifts under prevalent VUCA business environments.

Table 3.3: Case study & impact clusters sample

Sector	Industry	Case study impact cluster
Manufacturing	Food & Beverage; Chemicals; and Furniture.	• <b>Acutely affected.</b>
Services	Accommodation; Professional; and Human Health.	• <b>Moderately impacted.</b>
Construction	Civil. Eng.; and Specialised construction activity	• <b>Decimation.</b>
Primary agriculture	Crops & Animals	
Mining & quarrying	Mining support service	

Source: Developed by researcher

### 3.3.2.3 Deciding the number of cases

Extant literature debated the numbers of cases for multiple case study research (Patton, 2002). Stake (1995) suggested that study on specific phenomenon using single-case evaluation and done in isolation would allow in-depth understanding of the single phenomenon with multiple contextual implications. Moreover, past recommendations on ideal number of cases range from 4-10 (Eisenhardt, 1989); 6-8 homogeneous samples (Crabtree & Miller, 1992) and lesser than 10 for business research (Curran & Blackburn, 2000). Conversely, Yin (2003) suggested 6-8 cases for theoretical replication and 3-4 cases for literal replication identifications.

The study aimed to generate and assess contemporary phenomenon interpretation and intervention with multiple case study inquiries (Kuzel, 1999). Hence, the initial selection of sample size for this study of 12 SME firms as case studies participants; which included a

minimum of 10 (and maximum 18) owner-managers as informants for the semi-structured interviews (Lincoln & Guba, 1985) - provided simple and straightforward (Yin, 2003) access to information richness (Kuzel, 1999; Patton, 2002).

This also allowed exceptional degree of certainty and depth to observe and understand SME firm-internal and organisational cultural settings (Fletcher & Plakoyiannaki, 2011), whilst providing clearer evidence in the decision-making proficiencies. This was also essential to ensure the quality of data collection and analysis were not affected by larger samples (i.e., an upper limit of 50 interviews) as postulated by Ritchie et al (2014). Moreover, Creswell (2007) recommended 20-30 informants for a grounded theory study with 4-5 cases per collective case study research methodology (Stake, 1995) to be adequate for a strong research rigour.

In context of generalisability, Sim et al (2018) argued that determining qualitative sample size for exploratory research (Yin, 2003) should be part of the process of ongoing interpretation by the researcher. Conversely, Emmel (2013) stipulated *what matters most is not the number of cases but the outcome of critical analysis by the researcher*.

However, not all the initially contacted 12 SME organisations for inclusions agreed to participate in the study or proved to be suitable cases. In total, one (1) firm failed to respond, and one (1) did not meet the selection criterion for a Malaysian SME enterprise definition.

The initial request for participation was extended verbally to owner-managers (including acquainted business leaders in the senior management team) of the identified firms and followed by a formal email request with a brief overview of the purpose of the study, consent declaration statement and concluding remarks (see Appendix C.1).

### **3.3.3 Data Collection Instruments**

Gathering evidence from multiple sources of data is preferable to ensure sufficient triangulation of dataset (Yin, 2003), allowing significant insights into emerging criteria or themes (Lincoln, 1995). Numerous data collection instruments available include direct observation, participant observation, interviews, focus groups, documentary sources, archival records and physical artifacts (Yin, 2003).

For this study, the number of ten (10) identified sample population representative(s) of SME sector/industry businesses included:

- *Manufacturing* – (1) food & beverage, (1) chemicals and (1) furniture;

- *Services* – (1) accommodation, (1) professional (consultancy) and (1) human health;
- *Construction* – (1) civil engineering and (1) specialised construction activity;
- *Primary agriculture* – (1) crops & animals;
- *Mining & quarrying* – (1) mining support service

Data gathered using multiple interviews with direct observation on informants reflecting their routine practices (Eisenhardt & Graebner, 2007) was valuable to prepare and record potential material that create strong findings (Perecman & Curran, 2006). Whilst purely interpretivist research focusses on total immersion in a setting with methodological rigour, this study's approach was based on philosophical rigour and are systemised (Yanow & Schwartz-Shea, 2009) to obtain primary source of data (Easterby-Smith et al, 2012).

Primary data were accessed via dramaturgical interviewing, whereby, the researcher meticulously 'prepared' in advance for *virtual online calls* (hereafter "VOC") interviews. By virtue of aiding key informants with disclosure in guided semi-structured interviews, improvement in the amount and quality of the data gathered (Rubin & Rubin, 2005; Myers & Newman, 2007) enriched the study's cross-case analysis (Carson et al, 2001) and case studies findings (Yin, 2003).

The study employed primary data collection from *interviews and direct observations*, with secondary source of data retrieved from the *company websites and general documents* with consent from respective owner-managers. By virtue of collecting and analysing these multiple sources of data, convergence of evidence achieved by triangulation of data was accomplished which was important to assess selected case studies (Yin, 2003).

Semi-structured interviewing, according to Bernard (2006), was also suited for this study's inquiry with only one chance to engage key informants. Nevertheless, they are not without bias and inaccurate articulation (Yin, 2003). Hence, interview templates were prepared to capture context, content and process, and used to enhance efficacies of conducting precious interview sessions which allowed direct validation of interpretation of responses in each conducted interview.

A set of "Interview Notes Template" were completed 'in situ' with the informant (see Appendix A) which was crucial to obtain reliable and comparable non-verbal clues present during the interviews (Easterby-Smith et al, 2012) with additional flexibility to explore into emerging criteria as the interview advances (Qu & Dumay, 2011).

Direct observations to understand how key informant and their organisation employ strategy-making and SDM practices were followed up upon agreement to gain opportunity by making a field visit (Yin, 2003). However, this was planned for a separately suitable occasion when the repeated measures of COVID-19 pandemic MCO enforcement period affecting this study had ceased. Despite only three firms agreeing to accommodate this research intent, it was not completed due to continuation of strict local enforcements on COVID-19 pandemic lockdown and social distancing regulations and policies<sup>20</sup>.

The researcher had to rely on available company websites to acquire sufficient information on organisational structures and relevant input on the firms' vision of the future on growth and maturity. General administrative documents consisted general company business profile, presentation on organisational structure and departmental workflow processes, including company vision and mission statements were collected for analysis of the firm's profile and business context.

#### *3.3.3.1 Conducting Interviews*

A total of 10 actual interview sessions with 10 participant firms' owner-managers/management personnel were conducted over a period of two weeks for this study with each session lasting 1-2 hours. Limited by virtual connectivity, each interview commenced with an introduction to the RO, research framework and key concepts to enhance cognitive understanding and objectivity. A final version of "Semi-structured Interview Questionnaires Sheet" was employed which consisted of five main sections (see Appendix A.1): (1) Industry & Sector qualifiers – verifying the extent of impact and nature of business, (2) Part 1: Establishing Strategic Posture on VUCA & crisis intervention – processing the complexity of environment, (3) Part 2: Expounding the firm's SDM practices on the business and integrated resources – to determine positioning impetuses on strategic decision-making, and (4) Part 3: Explicating level of proficiency & focus on SOs for regeneration, and (5) Part 4: Establishing time-boundedness factor of strategy paradigms with SO fit as corollaries to continuous improvement – exploring future pathways to sustainability and business continuity.

---

<sup>20</sup> Source: <https://www.pmo.gov.my/special-contents/2019-novel-coronavirus-2019-ncov/> [Accessed 10/01/2021]

All of the ten interviews were conducted fully in English, despite the use of the national language (i.e., Bahasa Malaysia) with translated questionnaires was offered for selection preference prior to commencing the interview sessions with the respective informants.

### 3.3.3.2 Transcribing and capturing notes

For this study, the researcher was actively engaging the interviewees and performing the role of interviewer and transcriber, thence was directly influencing and retaining the quality of edited transcriptions (Mero-Jaffe, 2011). Furthermore, it was not necessary to transcribe every minute detail of the participants verbal gestures. As the researcher was actively interpreting the data with captured notes as the interview commenced and was transcribed (Moore & Llompарт, 2017); only what seems to be relevant for the ongoing investigation to progress and in essence and context of the research were scripted (Nascimento & Steinbruch, 2019).

This entailed the adoption of ‘denaturalised transcription’ of flowing conversation with sifted data focusing on sound cognitive accounts of reflections and contextualised inferences for the study (Davidson, 2009). This careful deliberation of best suited approach was also considered prior to the transcription process to allow the researcher to address RQs more specifically (Poland, 2002; Lapadat, 2000).

Captured notes using prepared “*Interview Notes Template*” and “*Semi-structured Interview Questionnaires Sheet*” templates were read and revisited several times to highlight potentially significant issues and experiences (Patton, 2002). This helped visualise responses given by the informant with added clarity and detail and are equally relevant to the exploration of multimodal strategy-making environments (Roberts & Priest, 2006). The templates were refined and improvised throughout the case study phase. The final version of the “*Interview Notes Template*” (Appendix A.2) consisted of three-quadrant matrix on (i) *deep learning*, (ii) *value reinforcements*, and (iii) *innovation orientation* in view of value of the business against the growth orientation timelines.

Using the structured questionnaires and templates, gathered information pertaining to firm practices on strategic planning and decision-making in managing crises to growth and maturity helped initial clustering of responses. This aided ‘sense-making’ interaction between researcher and topic (Altheide & Johnson, 1994) was useful during the conduct of interviews to help reduce misinterpretations and increasing validity of qualitative study (Lincoln & Guba, 1985; Merriam, 1998; Maxwell, 2005) particularly in the study’s VOC interviews.

### 3.3.4 Key Informants

As deliberated in Chapter 2, major shortcomings to SME practices on ‘future-preparedness’ from previous case studies were the *restricted scope of literacy and analysis, including atomistical focus of owner-managers as informants on prioritising intervention and actions*.

Select group of owner-managers and preferably key individuals from each firm’s management team were identified to provide needed information and capture the essence of generating suggestions and recommendations under fitted parameters (Kumar, 1989), thus allowing this study to compare outcome pathways (McAlearney et al, 2016).

To observe the entire range of dynamic capability and decision-making proponents and elements, three types of informants were enlisted: (i) senior managers/owner-managers – who stands to benefit from the SR initiatives personally and professionally, (ii) middle managers – i.e., the person in charge of key activities and explanation on motivation and organisation setting, and (iii) line managers – i.e., the person who performs daily functions at granular levels.

Kumar (1989) continued to argue the main advantages of using key informants include amongst others: (a) providing data and insights inaccessible with other methods, and (b) provide flexibility to explore unanticipated ideas and issues. On the contrary, findings can be informant biased when the interviewer is oblivious to localised environments, and interviewer biased when more credit is given to views of senior elites rather than granular level representatives in the firm.

A particular emphasis on engaging senior/owner-managers prior to engaging the middle and line managers was vital to establish sense of credibility and respect central to the organisational autocracy and cultural dispositions of local SMEs (Bjerke, 2000). This follows that owner-managers’ leadership in local SME participants are decisive for the progress of the organisationally steep firm (Bjerke, 2000).

Permission seeking through a gatekeeper to establish connects with key informants was accomplished instantaneously with consent from the owner-managers who were approached initially and directly. On the other hand, ethical considerations critical to safeguard the informants’ rights and firms’ information were implemented through: (a) firms’ names were not mentioned in the report due to requested rights to remain anonymous for privacy, (b) the privacy and confidentiality remains protected during and after the interview process, and (c) informants were provided consent forms and participants debriefing forms (see Appendix C.1) for full awareness on expected outcomes of the study.

### ***3.3.5 Company Profiles***

Brief background and basic information on the list of surveyed MY-SMEs firms relating to industry, criterion for the study, age of the business and researcher's observations are described in *Appendix B.1*. This tabulated information also included secondary sourced information on each company with incorporation of the researcher's external observations and notes taken during the interviewing process.

The main purpose of the tabulated profiling depiction is to demonstrate the 'uniqueness' of attributes and taxonomy of key respondent organisations to establish detailed pattern searching through the analytics process in this study. Whilst the actual names have been withheld for confidentiality reasons, the researcher has ensured that all information provided are an accurate description of each consenting subject.

### 3.4 Research Method

By bringing together the essence of this research's theoretical proponents, research paradigm and value systems with combination of multiple sources of empirical material, the selected multiple case studies methodology for this research was indeed purposeful to add rigour, breadth, complexity, richness, and depth to the study (Flick et al, 2004). Subsequently and according to Denzin & Lincoln (2003), the quality of a case study strongly correlates to its analysis and reporting.

#### ***3.4.1 Multiple Case Study (MCS) & Study Sequence***

Considerable amounts of qualitative data collected in the MCS were categorised and summarised in a manner that allowed ease of retrieval and verification and for later access (McCarthy & Golicic, 2005; Stake, 2013). The study sequence was conducted in the following three steps (see also Figure 3.7): -

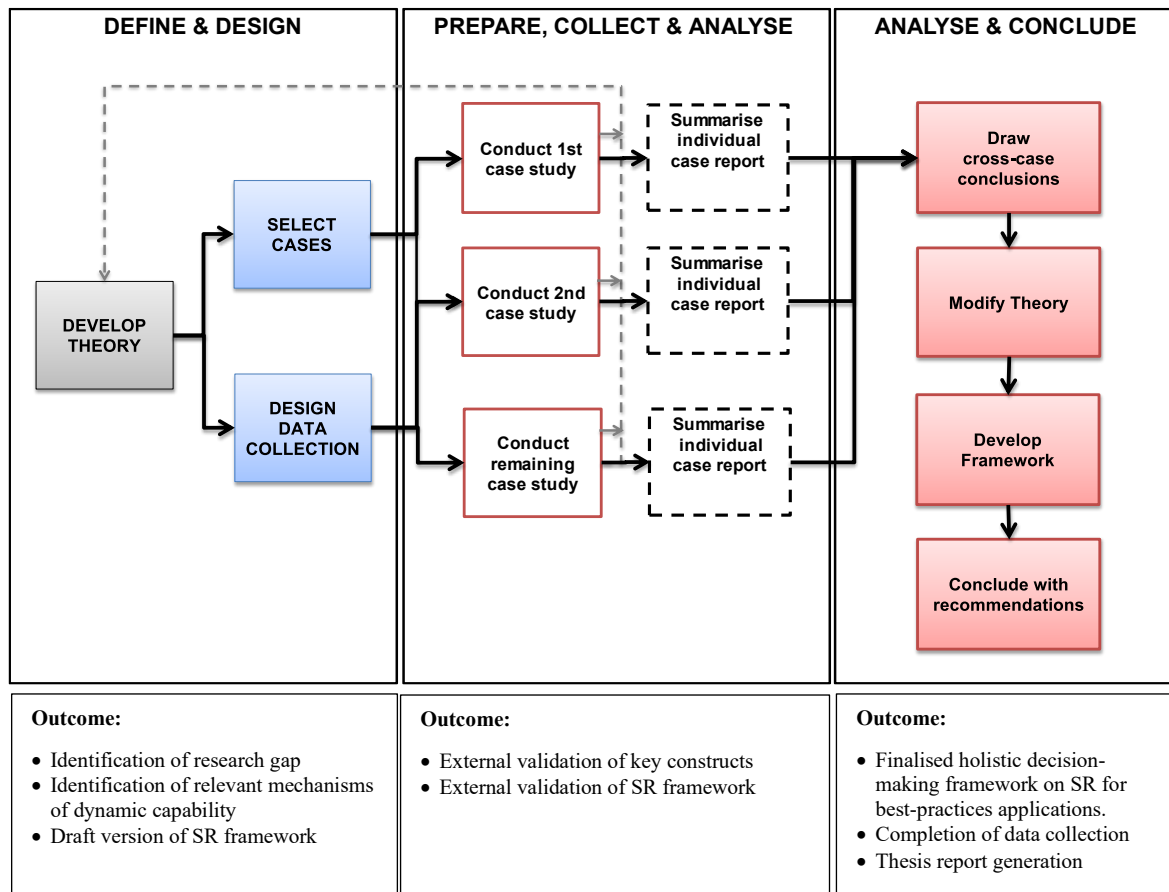
***Step 1: define & design*** – drawing upon past works to develop theory and designing data collection mechanism for selected cases. For example, post the era of COVID-19 pandemic, existing strategic planning tools no longer correspond to SME specific needs; hence a novel concept on managing decision frontiers is timely to decision-makers to anticipate future events and to act accordingly (Savioz & Blum, 2002; Pranjal & Sarkar, 2020). The literature was revisited between interviews to gain better traction on new data. A pilot case study was employed to explore the contrast of case relevance and verify applicability of developed questionnaires with key informants;

***Step 2: prepare, collect & analyse*** – using templates to conduct semi-structured interviews with structured questionnaires, 10 completed case studies with 10 key informant interviews were accomplished. Mapping from multiple data sources, clear conceptualisation of key constructs and delineations of strategic management practices in prevailing VUCA business environments (see also Chapter 2), provided external validations on key constructs and the SR conceptual framework's maturity model; and

***Step 3: analyse & conclude*** – with validations from primary & secondary data, including feedback from revisited firms obtained during direct observations, drawing cross-case conclusions provided validations for final version of the holistic decision-making framework on SR. *This then allowed the researcher to modify the framework and conceived the Maturity*

*Model for Strategic Regeneration decision management for MY-SMEs to overcome acute growth/maturity crises, particularly due to the unprecedented COVID-19 pandemic.*

Figure 3.7: Research sequence for the study



Source: Adapted from COSMOS Corporation (Yin, 2003)

### 3.4.1.1 Semi-structured VOC interviews & structured questionnaires

Given the novelty concept being explored with SME participants and having to conduct the VOC interviews under strict COVID guide for workplace & social distancing<sup>21</sup> using either videoconferencing or voice over IP (VoIP) calls, semi-structured interviewing with open format provided valuable means to allow the study to advance objectively and effectively.

Notwithstanding the importance and prevalence of face-to-face interview medium remains even in this age of computers and internet communications (Seymour, 2001; Opdenakker,

<sup>21</sup> Source: Garis Panduan KKM | COVID-19 MALAYSIA (moh.gov.my) [Accessed 5/05/2021]

2006), the use of telephony which is categorised as ‘oral-text’ exchange (Morgan & Symon, 2004), demonstrates methodological validity and can help overcome disadvantages of face-to-face interviews (Sturges & Hanrahan, 2004). This follows that telephony conversations also follow agenda-driven format initiated by the initiator (Cachia & Millward, 2011). Nevertheless, the interpersonal nature of interview context meant that informants are likely to provide contrived response (Lankshear & Knobel, 2004) out of courtesy (Richman et al, 1999; Yin, 2003).

Hence, in addition to using templates and structured interview questionnaires, cooperative research process (Gummesson, 2002) was assumed to delicately verify interview scribing/transcription, empirical evidence interpretation and final framework conception with participants, which allowed almost instantaneous feedback and suggestions to improve research findings. This was beneficial to nullify the implications of relatively small sample size of this qualitative inquiry on replication or generalisability of results (Bryman, 2008).

The scheduled VOC interviews commenced with general opening questions to ensure level of comfort and lure the informants into discussion (Cassel, 2015). Participants’ consent was sought for the interviews to be digitally audio-recorded in which complete transcriptions will be shared. Only four firms from the ten case study samples agreed and consented. Prior to adjourning the interview sessions, participants were debriefed and thanked for their contributions.

### ***3.4.2 Data Reduction and Coding***

With use of inductive reasoning, intricate data gathered needed to be reduced for clarity to ensure contextual relevance. This was crucial to prevent from limiting the richness of the summary data produced (Namey et al, 2008). To handle unstructured and non-numerical qualitative data, Miles & Huberman (1994) suggested use of content analysis of words or phrases for data set reduction, likewise, Saldaña (2013) suggested structural coding as an alternative and to further make sense of the data with thematic analyses. Moreover, data-driven content and thematic analysis necessitate a ‘grounded’ approach (Glaser & Strauss, 1967) in which preconceived ideas on the data will help outline the analysis beforehand.

In this study, manual open coding (or inductive coding) approach with structural/holistic coding in first cycle to grasp basic themes in the data set (Dey, 1993) and pattern/focus coding in second cycle provisional coding (Miles & Huberman, 1994) were established prior to data

collection was employed. Furthermore, the second cycle coding is essential to develop deeper sense of categorical and conceptual coherence from arrays of first cycle codes (Saldaña, 2013).

Table 3.4 describes the hierarchical coding system for this study, whereby, for each case study analysis, inductive coding layers based on the conceptual framework was built around identified constructs (i.e., SF, SM, SI, FO, dynamic capability etc.) with top-down hierarchical frames (Richards & Richards, 1995) to allow multiple levels of granularity and flexibility with consistent alignment with RQs and ‘a priori’ for the study.

Table 3.4: Hierarchical coding system for the study

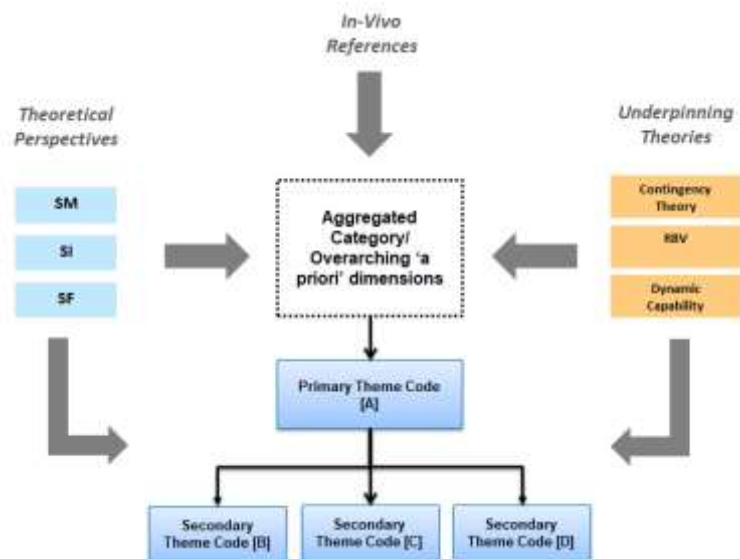
Aggregated Category/ Overarching 'A Priori' Dimensions	Primary Theme Codes (Structural Coding)	Secondary Theme Codes (Focus Coding)			RQs Alignment
		[A]	[B]	[C]	[D]
MY-SMEs	Sectoral landscape	<i>Manufacturing</i>	<i>Services</i>	<i>Others</i>	RQ1
	Signs of crisis	<i>Acutely affected</i>	<i>Moderately impacted</i>	<i>Decimation</i>	
Strategic Postures	SI orientations	<i>Radical</i>	<i>Incremental</i>	<i>Reactionary</i>	RQ3
	Prevalence of growth frontiers	<i>Policymaking</i>	<i>Value capture</i>	<i>Open innovation</i>	RQ1 & RQ3
	Agency to reform	<i>Value creation</i>	<i>Transformation</i>	<i>Managing resources</i>	
	Firm orientations	<i>Structure</i>	<i>Preparedness</i>	<i>Inertia</i>	RQ2 & RQ3
Strategic Decision Management (SDM)	SM foundations	<i>Ambidexterity (Processing)</i>	<i>SDM (Positioning)</i>	<i>Strategic planning (Pathways)</i>	RQ2 & RQ4
Strategy Paradigms	Envisioned SF frontiers	<i>Business environment</i>	<i>Growth orientations</i>	<i>Business continuity</i>	RQ3
Strategic Orientations	SDM configurations	<i>Sensing</i>	<i>Seizing</i>	<i>Sustaining</i>	RQ1, RQ2, RQ3 & RQ4
	Strategic Planning impetus	<i>Immediate</i>	<i>Transition</i>	<i>Future</i>	RQ2 & RQ4
	Ambidextrous dispositions	<i>Exploration of problems</i>	<i>Inexplicability of issues</i>	<i>Exploitation of opportunities</i>	RQ3

Source: Developed by researcher.

Lester et al (2020) suggested three phased coding layers with the first layer to identify important statements as to prime the dataset and a second layer to attain higher level of inferences. In context of this research, the first layer depicts the aggregated categories and the second layer [A] as the study’s primary theme codes. The codes for these two layers were derived based on extant literature review of theoretical perspectives, underpinning theories and ‘in vivo’ references.

Lester et al also suggested a third layer code which was meant to explicitly connect the study's conceptual theories and synthesised ideas. In fact, the incorporated secondary theme codes [B], [C] & [D] were meant to further reduce the size and complexity of dataset. Figure 3.8 depicts the visualisation of layered coding process for fine-grained analysis of multiple cases in the study.

Figure 3.8: Visualisation of the layered coding for the study's analytics process.



Source: Developed by researcher.

#### 3.4.2.1 The functionality & post-coding analyses

Data analyses commenced via organising each interview transcripts per questions in tabulated form in multiple MS Excel software worksheets. Each row of case study data contributions was labelled with Case Identifications (Case ID) to facilitate triangulation in the next analysis stage.

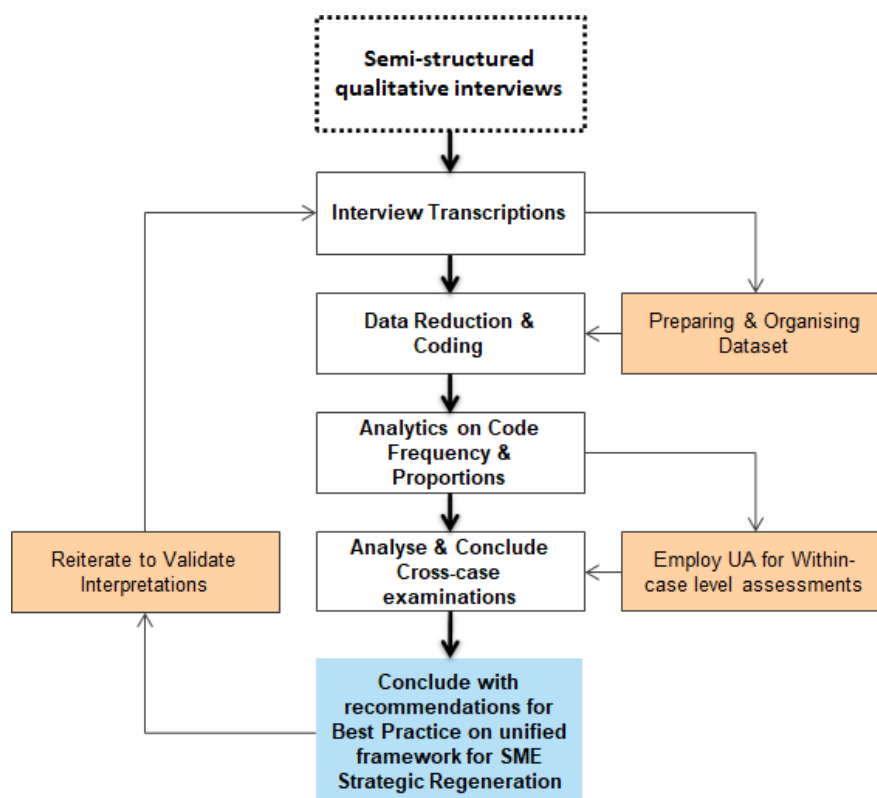
The next step involved colour coding the assigned thematic codes to facilitate the manual code assignment process and enhance visual identification of the relevance/appropriate code against the transcribed responses. Ultimately, these repetitive steps were performed for each of the interview questions prior to data consolidations and cross-comparison analysis with collated key responses. The analytics process mapping shown in Figure 3.9 provided useful visualisation of the process of moving from codes to cross-case conclusions with recommendations on a unified framework with this study.

The standard programming function in MS Excel software tool also made it possible to organise and sort data as the researcher approached the analysis of findings. Additionally, the MS Excel

tool was employed with particular motivation to avoid heavy dependence on built-in autonomous logic features (such as the computer-assisted qualitative data analysis software or CAQDAS), as it could distort the ambiguous nature of qualitative data (Becker, 1993; Richards & Richards, 1998) leading to potential loss of interpretations and meaning (Roberts & Wilson, 2002) in this distinctive study.

Nonetheless, via this adopted process, the researcher is of the opinion that with the uniquely created generic codes with specific context for this study would entail: (a) adequate depth of coverage of all the interview responses; (b) avoidance of common interpretations of similar purpose in using analogous codes; (c) capture of contrasted interpretations within similar context of peculiar and investigated phenomena; and (d) effective data reduction with stronger sense of meaning and contextual relevance for the study.

Figure 3.9: The analytics process mapping for this study



Source: Adapted from Miles & Huberman (1994)

### **3.4.3 Drawing Conclusions**

Evaluating the case study, Saunders et al (2012) and Yin (2003) suggested three alternatives to draw conclusions: (i) theoretical framework, (ii) distinguish and test opposing explanations, or (iii) presenting a case description. For this study, particular emphasis was focused on: (1) what is the solid answer to each RQs, (2) what does this mean to the RO, and (3) what are the advantages and limitations of this study.

In evaluating the case studies & assessing the role of theory, considerations on the impact of final and resulting intervention on respective SMEs including distributional impact across different businesses and sectors were of paramount interest. Two guiding schemes were adopted: (a) *dynamic capability of a firm evolves with maturity and contributes to resilience in managing indeterminate disruptions and discontinuous change*, (b) *firm ambidexterity correlates to contextual factors such as prevalence and agency*.

Notwithstanding limitations on research accessibility in which SME owner-managers' reluctance to allocate time from hectic schedules and skepticism on improving their business processes (Kraus et al., 2007) prevailed, their struggles having to operate with limited resources in challenging times were fully acknowledged. From the research perspective and as described in Chapter 2, the proponent to build holistic decision-making propositions with effective bricolage of CT, RBV and Dynamic Capability underpinning theoretical frames shall set forth discourses on 'meaningful' decision frontiers for SMEs in Malaysia in particular.

## **3.5 Questionnaire Design (QD) & Employability**

This study's heuristics inquisition into SME practices involved having to deal with deeply rooted psychometrics and 'emotions' of owner-managers. Ideally, questionnaires should be unambiguous and crystal clear (Cohen et al, 2007) to yield reliable data. Hence, structured questionnaires used in the semi-structured interviews were pre-coded inquiries with defined patterns to follow the sequence of questions. This allowed easier administration and consistency in answers with lesser discrepancies with data management.

The logical and systematic delivery of questions aided retrieval process which in turn improves 'meaningful learning' from answered questions (Sumeracki & Karpicke, 2013). For instance,

the *top-down retrieval* process to explicate general to more specific information, the corresponding questions used were probing in nature beginning with – ‘What’ and ‘How’. This was followed by *sequential* and *parallel* retrieval processes to exemplify chronological significance and periphery recollections on external environment impact to the business.

The language used in the questionnaire construction was central to determine level of acceptance and comfort by the interviewed participants. Taking into considerations rhetoric language descriptions in structured questionnaires (Firestone, 1987) and researcher’s own familiarity with preferred local dialect of the culturally diverse local SMEs, questions asked were assured to be succinct and non-threatening. A preliminarily prepared local language (i.e., Bahasa Malaysia) translated set of questionnaires were made available for interviewer use upon request and preference. However, no specific request was made by interview participants.

### ***3.5.1 Questionnaire construction considerations***

Appendix A.1 (Appendix A) summarises the structured ‘main questions’ and ‘additional questions’ in reference to constructs and variables pertinent to thematic inquiries in the research instrument. Consecutive use of ‘clarifying questions’ were intended to expound meaningful dialogues with interview participants.

The proponent constructs of ‘strategic posture’ pertaining to ‘firm orientations’ involve first order capability (Winter, 2003) which determines the basis of instruments and inquiries for this study. Concepts proposed by other researchers which included (i) dynamic capability, (ii) contextual implications (agency), and (iii) business context (prevalence) were based on second order capability (Schilke, 2014). These concepts provided rationale for intervention and allow firms to reorganise resource allocations and pursue new opportunity and growth horizons (Ambrosini et al, 2009). Moreover, the nature of enquiries built around major research standpoints (SM, SI & SF) for this study provided tangible relevance and context to conduct the research instrument with the derived structured interview questions.

The QD adapted past works from strategic planning and decision-making questionnaires (Poister, 2004), to enhance researcher’s interpretation and alignment between major standpoints for this study using derived questionnaires with the study’s aims. This was accomplished based on the following approximations: (a) *case study* - using in-depth, descriptive questions to raise understanding about how different situations provide insight into an issue or a unique case (specimen questions include ‘main questions’); in tandem with (b)

*grounded theory* - using process questions to extricate convincing experiences over time or on actual changes that have occurred in stages or phases (specimen questions include ‘additional questions’). These perception factors were useful to test propositions (H) with complementing interview templates and allowed direct validations of the researcher’s interpretations of interview responses.

### ***3.5.2 First version testing and pilot run***

First version test run of the developed questionnaires were conducted with field subject matter experts on corporate strategy & risk management to gauge contextual meaning and relevance of the study’s key constructs and variables, followed by a pilot run with selected SME firm from research sample. Based on Foddy’s (1994) work, the pilot run had two main aims: (a) to identify confusion in the questions and plausible respondent problems when answering first version open-ended questions, and (b) to pilot translated versions of the questionnaire, using general direct translation and explanation of context and relevance to convey concise meaning to applied constructs and concepts.

On both occasions, test respondents’ first answer to questions were sought after and were then asked how they arrived at their answer to filter-out uninformative questions (Foddy, 1994; Burgess, 2001; Van Teijlingen & Hundley, 2001). As a result, the final version of standardised questionnaires was refined and organised in earlier described five sections with a more focused intent for section (1) *Industry & Sector ‘identity’ qualifiers* – to determine the most highly impacted type of MY-SMEs business. This renewed template was then employed extensively in actual interviews.

## 3.6 Verifying the quality of research

### 3.6.1 Validity and reliability

Measures were taken to ensure the quality of research design and execution by performing three relevant tests (Yin, 2003):

- *Reliability* – in this study, the operationalisation of inquiries to obtain the same results and conclusions were repeatable. This follows the structured three step study sequence was established to produce specific outcomes. Further research biases were overcome by employing systematic approach (Eisenhardt & Graebner, 2007) on limiting respondent bias by selecting key informants who are highly engaged in decision-making and strategy-making in the business operations. In terms of observer bias, the semi-structured interviews were conducted with templates and using structured questionnaires for comparability between cases and increasing validity of response.
- *Construct validity* – the subjectivity of interpretation by the researcher was overcome by identifying phenomenon with ‘a priori’ context and by coding of several informants’ response. This follows the interview notes and transcripts were reviewed with informants to validate importance and accuracy of information. Conversely, the limited definition of emergent phenomenon was overcome by using constructs linked to coded inquiries as earlier shown in Table 3.2.
- *External validity* – with particular focus on building theory and making holistic best practice recommendations to improve SME management practices, test of generalisability (Saunders et al, 2012) was overcome by adopted MCS in favour of a single case study approach. Additionally, the cross-case analysis between multiple SME sectors and industry played an important role to highlight replication logic enhancing generalisability and improve robustness of findings.

## 3.7 Summary of the Chapter

This Chapter commenced by describing in detail the philosophical standpoints and arguments on the adapted practitioner-based qualitative case studies research approach for this study. Using justifications of thematic enquiry, the research design employed was supported by

adopted CR research paradigm with objective ontology via selected inductive approach to complement the overall RQs and research flow and sequence.

The need to combine three level of UAs adopted for this study were carefully considered to explicate meaningful discourse with purposefully selected key informants during data collection. Deeper insights gathered via transcribing and capturing notes during the interviews was significantly enriched using interview templates especially designed for this study. This also contributed to the visualisation of data clusters which helped with open coding systems used to seek better causality in narratives answering the RQs. Upon reflection, the MCS and study sequence were critical to establish meaningful data collection and was effectively accomplished by employing structured questionnaires in the total of 10 SME participants completed semi-structured VOC interviews.

QD and its employability was a particular emphasis for the research instrument to effectively evaluate SDM imperatives and time-boundedness corollary of managing indeterminate external disruptions and discontinuous change faced by SMEs. From the completed pilot run, further validations were incorporated into the final set of questionnaires.

Finally, implied strength and timeliness of this study was demonstrated by the high validity and reliability test outcome as well as ‘sense-making’ interaction with key informants through substantively two-way research process.

## **Chapter 4: Analysis & Interpretation of Findings**

### **4.1 Preamble on the research's findings and interpretations**

Analysis of qualitative data to make sense of unstructured evidence gathered in the study required pattern identification and matching, building of logics and explanations combined with cross-case synthesis and correlations (Miles & Huberman, 1994; Yin, 2003). This was imperative to ensure a rigorous data analysis and prevention of alternative interpretations via establishing definitive conclusions on objectivity of attaining sound evidence.

The interviews for data collection were carried out during June 1<sup>st</sup> – June 30<sup>th</sup>, 2021, by employing the Semi-structured Interview Questionnaire Sheet (Appendix A.1) and Interview Notes Template (Appendix A.2). The Pilot Run for the study with Company A to test out the first version of QD was conducted in advance of three day prior to the actual VOC interview session with the key informant. This was followed with the completion of interview transcription and compilation of observation notes prior to the commencement of analysis on gathered dataset.

Categorisation of dataset to deconstruct meaningful inferences were achieved manually with MS Excel desktop applications via thematic coding analysis. Data collection presentations are presented in tabulated format to facilitate thematic analysis and can be found in Appendix B.1 and Appendix B.2.

This chapter shall describe the techniques and process of data reduction and analysis to draw out conclusions and interpretations of substantial findings to answer the study's RQs with supporting evidence from the coded responses and theme occurrences.

The researcher has taken elaborate measures to prevent alternative interpretations of factual inferences from the dataset via adoption of codes application guide (Table 4.2) for a more precise decryption of hierarchical coding systems (Table 3.4) used in the analytics process for the study (Figure 3.9). Additionally, in ensuring to achieve a high-quality case study, drafted general findings were briefly and verbally reviewed with selected key informants from the case study clusters (i.e., Company A, Company I and Company G). In turn, iterative improvements made through this process would foster better accuracy of the case study appraisals and enriches the construct validity in the study (Yin, 2003).

## 4.2 Coding Sequence & Results

The coding systems (Table 4.1) and code applications guide (Table 4.2) were deduced from ‘Major variables investigated in this study’ (Table 3.2) compiled from extant literature and review of Chapter 2. The code applications guide, and coding systems were used in parallel against the study’s conceptual framework (Figure 2.28) to explicate contextual reference on SDM and strategy paradigms observed and practiced by case study firms. Besides, this approach was vital to ensure repeatability and reliable data coding to avoid confusion and ambiguity of interpretations.

Table 4.1: Coding system & Theme IDs used for the analysis.

#	Aggregated Category / Overarching 'A Priori'	Primary Themes/Codes		Secondary Themes/Codes					
		ID	(A)	ID	(B)	ID	(C)	ID	(D)
1	MY-SMEs	Theme 1	Sectoral landscape	B1	Manufacturing	C1	Services	D1	Others
2		Theme 2	Signs of crisis	B2	Acutely affected	C2	Moderately impacted	D2	Decimation
3	Strategic Posture	Theme 3	SI orientations	B3	Radical	C3	Incremental	D3	Reactionary
4		Theme 4	Prevalence of growth frontiers	B4	Policy making	C4	Value capture	D4	Open innovation
5		Theme 5	Agency to reform	B5	Value creation	C5	Transformation	D5	Managing resources
6		Theme 6	Firm orientations	B6	Structure	C6	Preparedness	D6	Inertia
7	Strategic Decision Management	Theme 7	SM foundations	B7	Ambidexterity (Processing)	C7	SDM (Positioning)	D7	Strategic planning (Pathways)
8	Strategy Paradigms	Theme 8	Envisioned SF frontiers	B8	Business environment	C8	Growth orientations	D8	Business continuity
9	Strategic Orientations	Theme 9	SDM configurations	B9	Sensing	C9	Seizing	D9	Sustaining
10		Theme 10	Strategic Planning impetus	B10	Immediate	C10	Transition	D10	Future
11		Theme 11	Ambidextrous dispositions	B11	Exploration of problems	C11	Inexplicability of issues	D11	Exploitation of opportunities

Source: Developed by researcher.

The next step in the coding sequence involved exploring primary themes from the edited interview transcripts for each interview questions (Appendix B.2) with ensuing secondary themes coding and were performed in tandem with registering code ‘hits’ (i.e., numerical number ‘1’) for each corresponding themes. Tabulated matrices in Appendix B.3 illustrates this exhaustive process of capturing the frequencies of coded responses.

Table 4.2: Code applications guide on transcribed responses to interview questions.

Primary Themes/Codes		Code applications guide	
ID	(A)	Exploring	Exploiting
Theme 1	<i>Sectoral landscape</i>	Unconventional business model	Core business model
Theme 2	<i>Signs of crisis</i>	Negative impact	Positive outcome
Theme 3	<i>SI orientations</i>	Provisions for change	Continuous improvements
Theme 4	<i>Prevalence of growth frontiers</i>	Internal planning activities	Achievable tasks
Theme 5	<i>Agency to reform</i>	Call to actions	Capability to deliver
Theme 6	<i>Firm orientations</i>	Interlacing objectivities	Organisational integrity
Theme 7	<i>SM foundations</i>	Institutionalised competencies	Processual capability
Theme 8	<i>Envisioned SF frontiers</i>	Real-world forward projections	Eventful actualities
Theme 9	<i>SDM configurations</i>	Organisational aptitude	Organisational behaviour
Theme 10	<i>Strategic Planning impetus</i>	Timeline for achievable results	Time limits on execution
Theme 11	<i>Ambidextrous dispositions</i>	Outliers to strategy-making	Firm's absorptive capacity

Source: Developed by researcher.

#### ***4.2.1 Coding results on Interview Questions.***

Raw dataset on coded response frequencies and percentages of occurrence are compiled and displayed in Appendix B4. Whilst Appendix B3: “Datasets on Coded Responses based on Qualitative Interview Questions” also demonstrated the number of primary theme hits and frequency in sentence of the prescribed codes used for both within-case and cross-case levels evaluation.

Such fine-grained secondary theme codes were iteratively contrasted with the prepared code applications guide and compared amongst firms for each interview questions to meaningfully aggregate them into overarching dimensions and concepts. By virtue of triangulation with interview observation notes and company profiling (Appendix B1), the taxonomy of categories and results interpretation represented the measure of relevance and breadth of the described category and code elements.

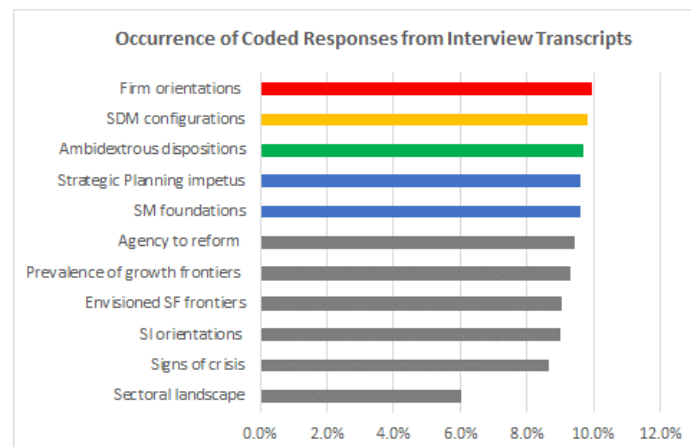
##### ***4.2.1.1 Theme Occurrence & SME Firms***

Displaying results in tables and charts were meant to illustrate and visualise gathered evidence and information to draw sensible patterns and thematic conclusions based on explanations and deeper insights (Miles & Huberman, 1994).

The researcher commenced with extracting patterns from the primary theme code responses, to focus on key issues with contextual relevance to the ROs and conceptual framework. Figure 4.1 summarises the ranked frequencies of highest explored/exploited priorities and/or activities implied by firms at the onset of managing existing market turbulence and uncertainty, whereby:

*Firm orientations* which relate to inferences on firm’s ability and readiness scored the highest, particularly concerning highest scoring secondary code ‘inertia’ related to firm’s response with organisational objectivities and integrity in prevailing conditions. This was followed by *SDM configurations* with code ‘sensing’ concerning organisational decisional aptitude/behaviours, and next by *Ambidextrous dispositions* concerning codes ‘problems’ and ‘issues’ attributed to outliers to strategy-making and firm’s absorptive capability. Subsequently, significant observations were registered by equal accounts of *Strategic planning impetus* with code ‘immediate’ timeline/limits concerning achievable strategy execution/results and *SM foundations* with code ‘ambidexterity’ concerning institutional and processual competencies. At the lowest end score, *Sectoral landscape* code ‘services’ associated with firm’s deliberations on exploring/exploiting unconventional and/or core business model was observed.

Figure 4.1: Total Occurrence of Coded Responses from Interview Transcripts



Source data: Table B.4.1 (Appendix B4)

Subsequently, the coded response rankings were interpreted by the researcher against the SR conceptual framework (Figure 2.28) and compared across three case study clusters in next sections to further substantiate SDM process and praxis in MY-SMEs firms.

Next, on the general frequencies of secondary code response, considering the emergent pattern of thematic observations, codes registering highest frequencies were specifically acknowledged for deeper interpretations and displayed in bar charts (Figure 4.2).

The secondary code theme results revealed from the answers to the list of twelve main (MQ) plus additional (AQ) semi-structured interview questions that the highest frequencies from each Coded Themes from firm's responses were:

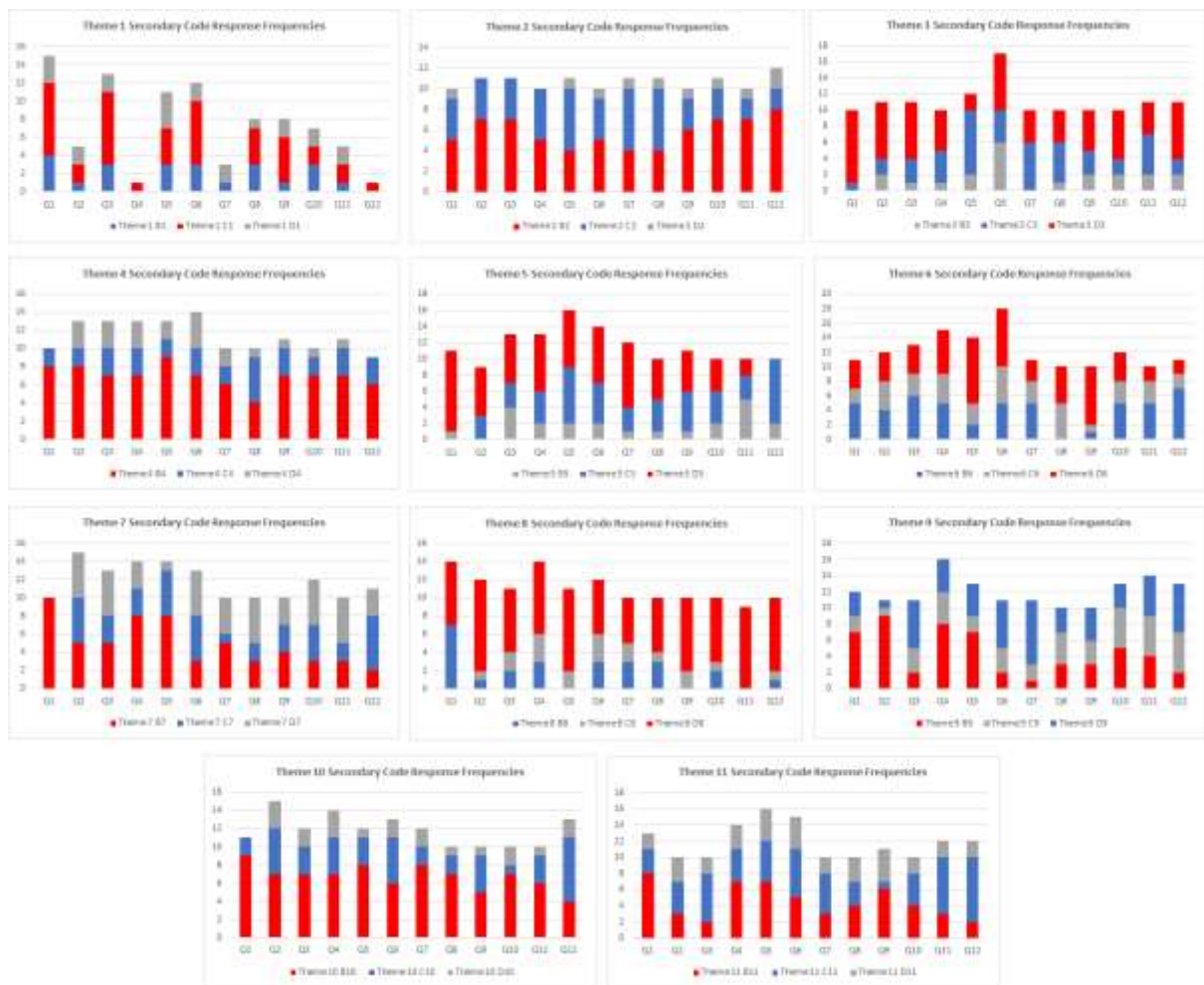
- **'Services'** in all questions followed by 'Manufacturing' in ten questions to indicate 'Sectoral landscape' considerations. Nonetheless, 'Others' were fairly consistent except in Q4 & Q12 together with 'Manufacturing'.
- **'Acutely affected'** followed by 'Moderately impacted' to indicate 'Signs of crisis' were consistently found in all questions. 'Decimation' was found to be minimal except Q2, Q3 & Q4.
- **'Reactionary'** in all questions particularly Q1, followed by 'Incremental' with significant hits in Q5 to indicate 'SI orientations'. 'Radical' were consistently at low hits except in Q6 but was not found in Q1.
- **'Policymaking'** were consistently high in all questions, followed by 'Value capture' with higher hits in Q8 to indicate 'Prevalence of growth frontiers'. 'Open innovation' was consistently low in all questions but were absent from Q1 & Q12.

- **‘Managing resources’** was particularly high to indicate ‘Agency to reform’ in Q1 but absent in Q12. ‘Transformation’ was particularly high in Q12 but absent in Q1. ‘Value creation’ was fairly average with no hits in Q2.
- **‘Inertia’** was particularly high in Q5, Q6 & Q9 to indicate the criticality of ‘Firm orientations’ followed by ‘Structure’ with consistent hits in all questions except Q5 & Q9. ‘Preparedness’ was fairly low with exception to Q8.
- **‘Ambidexterity’** was especially high in Q1 followed by in Q4 & Q5 to indicate ‘SM foundations’. ‘SDM’ and ‘Strategic planning’ on the other hand were consistent in all questions but absent in Q1.
- **‘Business continuity’** was consistently high in all questions to indicate ‘Envisioned SF frontiers’ particularly in Q2, Q5, Q9, Q11 & Q12. ‘Business environment’ was highest in Q1 but was absent in Q5 & Q9 with fairly low hits in remaining questions. ‘Growth orientations’ was minimal in all questions but absent in Q1.
- **‘Sensing’** was high in Q1, Q2, Q4 & Q5 but fairly low in remaining questions to indicate ‘SDM configurations’. ‘Sustaining’ was averagely consistent in all questions except Q2 with low hits. ‘Seizing’ on the other hand was average low in all questions.
- **‘Immediate’** was significantly consistent in all questions to indicate ‘Strategic planning impetus’. ‘Transition’ was fairly consistent with low hits in Q10 followed by ‘Future’ with low hits in general but absent in Q1.
- **‘Exploration of problems’** registered fairly high hits in Q1, Q4 & Q5 to indicate ‘Ambidextrous dispositions’ followed by ‘Inexplicability of issues’ with fairly high hits in Q11 & Q12. ‘Exploitation of opportunities’ was fairly average in all questions.

Overall, a total of 1478 hits were recorded for all theme codes in all of the interview question answers based on the study’s edited transcripts. Q6 registered highest frequency of coded responses at 149 hits, followed by Q5 at 143 and Q4 at 134 hits.

Across each firms, Company I registered highest frequencies of coded responses at 173 hits followed by Company D at 160 hits. Companies B, H & J all registered 151 hits and were the third highest contributor to coded responses. Highest code response frequencies are displayed as red-coloured elements followed by second highest blue-coloured elements in Figure 4.2 bar charts.

Figure 4.2: Secondary Code Response Frequencies from Interview Questions



Source data: Table B.4.2 (Appendix B4)

### 4.2.2 Assigning Firms to aggregated Case Study Clusters

The ten case firms were aggregated into three main categories of identified case study clusters for deeper analysis. The case study groupings are as follows:

- **Case 1** (Acutely Affected): *Company A, Company C, Company E, Company F, Company G, Company H & Company J*;
- **Case 2** (Moderately Impacted): *Company B, Company D & Company I*; and
- **Case 3** (Decimation): *Company E & Company G*.

The grouping of case study clusters was not facilitated by the current industry/sector the firms operate in, nor the ‘sectoral landscape’ indicative of the inferences on the firm’s exploration of unconventional business model and/or exploitation of existing core business model. Rather, it was based on theme occurrence for ‘signs of crisis’ (Figure 4.1) with associated inferences on exploring negative impact and/or exploiting positive outcomes to identify patterns in strategic decisions management in relations to the firm’s ability to ‘Read’ or determine the extent of crisis, ‘Recognise’ impetuses for crisis interventions and competently ‘React’ to better recover from crises events.

This follows from tabulated data in Table B.4.6 (Appendix B4), that the study’s investigation on Case 1 & Case 2 are based on cut-off occurrence of 50% (C1) and for Case 3 which is based on cut-off occurrence of 20% (C3). *Case 3 was also observed to overlap and is a subset of Case 1*. This aggregation strategy was adopted by the researcher to ensure strong emphasis on clarity of expounding arrays of SDM criteria at the onset of ‘signs of crisis’ with further analytics using UAs on the established case study clusters.

Figure 4.3: Theme Occurrence for ‘Signs of Crisis’



Source data: Table B.4.6 (Appendix B.4).

## 4.3 Case Study Analysis & Results

### 4.3.1 Unit of Analysis (UAs)

As much as guiding the development of codes and the coding process, the main purpose of the chosen UAs was to develop further insights into the incipient area of knowledge on SDM as an interconnected and interdependent process based on the established rationale for holistic decision-making framework proponent in this study (see Chapter 2). The UAs for this research are indicated in Table 4.3 below and are anticipated by the researcher to be useful for analysing MY-SMEs in crisis.

Table 4.3: UAs & Objectives for Analysis

Unit of Analysis (UA)	Objectives of Analysis	Contextual strategy implications of Analysis on MY-SMEs firms			Contextual Significance to SR Conceptual Framework
		<i>Case 1</i>	<i>Case 2</i>	<i>Case 3</i>	
<b>UA1:</b> Strategic Postures (REACTING)	Reduce the crisis impact	<i>Scaling-up profitability</i>	<i>Scaling-up growth</i>	<i>Restarting with a new business</i>	Generating business continuity & sustainability
<b>UA2:</b> Strategic Regeneration Horizons (READING)	Reduce the plausibility of crisis occurrence	<i>Shifting business focus (i.e., products, customers etc.)</i>	<i>Shifting business Objectives (i.e., financial, growth, business processes etc.)</i>	<i>Remodel the business (e.g., business model innovation)</i>	Developing future-preparedness
<b>UA3:</b> Dynamic Capability (RECOGNISING)	Improve & identify crisis interventions	<i>Scaling-up Organisational resilience</i>	<i>Scaling-up Operational resilience</i>	<i>Reassess Economic resilience</i>	Building crisis resilience

Source: Developed by researcher.

### **4.3.2 Within-case Analysis & Interpretations**

#### **4.3.2.1 Within-case Occurrence & Results**

The diverse taxonomies on ‘sectoral landscape’ for each case study clusters indicate commonality and inherent limitations concerning growth and maturity issues with resource constraints amongst SME firms as detailed in Chapter 1. Moreover, main considerations on manufacturing, services and other sectoral landscapes were specifically based on SMECorp’s definition of MY-SMEs. Thus, the contextual significance on this study’s analysis gravitates towards the contrasting physical, high Capex (Capital Expenditures) and Opex (Operating Expenses), high production rates and human-capital intensive between firms in each sectors.

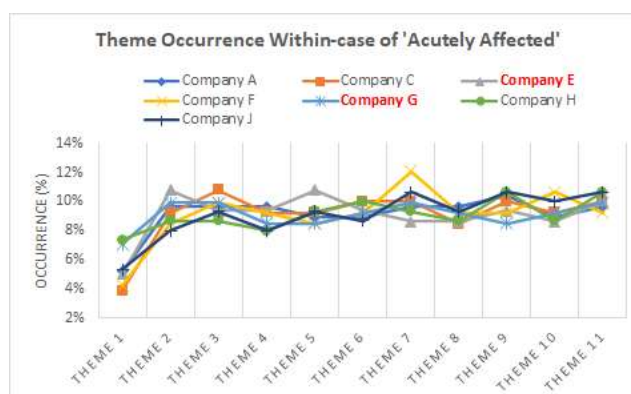
Additionally, the year-over-year (YoY) revenue comparisons signify the performance of variously operationalised strategies prior to and during the economic instability caused by COVID-19 pandemic within the period of 2019-2021. Table B.4.7 (Appendix B4) also depict the firm’s stage of lifecycle to confer with the ‘signs of crisis’ within each aggregated case study clusters including observations made on reported YoY revenue comparisons.

In providing preliminary conclusions, the displayed data from Figure 4.4 & Figure 4.5 describes the evidence of logical theme occurrence and associations around:

- ‘Sectoral landscape’ - out of seven firms in Case 1, two firms registered manufacturing (Companies F & H) whilst one is a manufacturing/services (Company E). Three firms registered services (Companies A, C & J) whilst one firm registered others (Company G). Whereas in Case 2, two firms registered services (Companies B & D) and one firm registered services/others (Company I).
- The accounted stage of lifecycle from company profiling & observations (Appendix B1) indicated for Case 1: five firms under ‘survival’ (Companies C, E, F, H & J) and one firm at ‘maturity’ (Company A), whilst one firm at ‘birth’ stage (Company G). Whereas YoY results of all firms indicated ‘shortfall’ with exception to Company A which was ‘stable’. Nonetheless, for Case 2: two firms indicated ‘expansion’ (Company B & I) with one firm at ‘growth’ stage of lifecycles. The YoY for all three firms varied with Company B on ‘shortfall’, Company D on ‘surplus’ and Company I on ‘Stable’.
- Despite Theme 3 through to Theme 4 occurrences averages between 8-10% for both cases, Company E & G from Case 1 registered high hits on Theme 2 secondary codes ‘acutely affected’ but were both also amongst four firms registering substantial

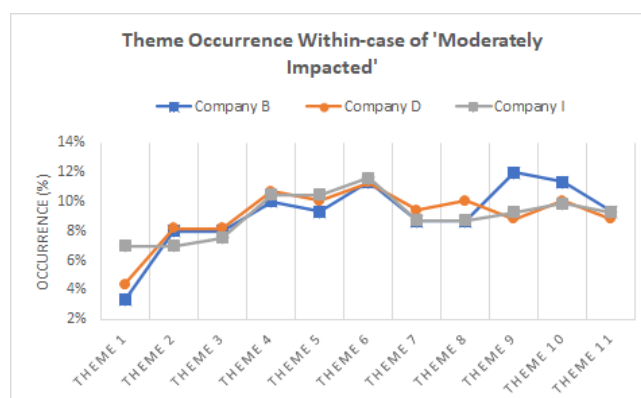
frequency hits on ‘decimation’. In Case 2 on the other hand, Companies B & I both registered highest hits for secondary code ‘moderately impacted’.

Figure 4.4: Theme Occurrence Within-case of ‘Acutely Affected’.



Source data: Table B.4.4 (Appendix B4)

Figure 4.5: Theme Occurrence Within-case of ‘Moderately Impacted’.

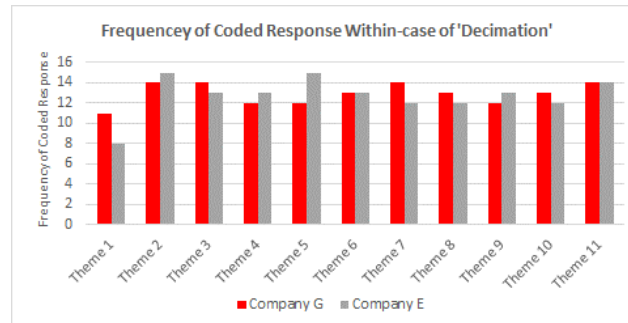


Source data: Table B.4.4 (Appendix B4)

- Nonetheless, Figure 4.6 displays the frequency of coded responses for Case 3 which were almost equivalent to one another. However, an important element for analytical considerations was observed under ‘sectoral landscape’ with Company G registering as ‘others’ but based on actual profiling, its business resides in the Engineering & Construction sector serving mainly the Oil & Gas industry in which

at the point in time this study was conducted, markets remained crippled by the COVID-19 pandemic impact on the industry's economic uncertainties<sup>22</sup>.

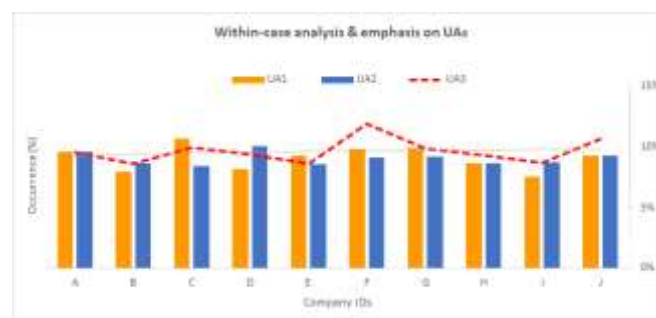
Figure 4.6: Frequency of Coded Responses Within-case of 'Decimation'



Source data: Table B.4.3 (Appendix B4)

Next, in exploring the firm's decision corollaries and strategic activities associated with UAs in this study, focusing on occurrences in Themes 3, 7 & 8 in particular, helped explain key issues and facts mentioned in the interview questions. Results displayed in Figure 4.7 indicate that the initiatives and decision imperatives in each firms were substantially leveled for all firms and particularly within each cases. All firms demonstrated significant occurrences for strategic posture orientations (UA1), strategic regeneration horizons deliberations (UA2) and applied dynamic capability (UA3) in managing the business at the onset of prevailing VUCA crisis environments.

Figure 4.7: Within-case analysis on the emphasis of UAs



Source data: Table B.4.6 (Appendix B4)

<sup>22</sup> Source: <https://www.reuters.com/article/us-health-coronavirus-malaysia-petronas-idUSKCN21V1FM> [Accessed 30/04/2021]

#### 4.3.2.2 Researcher's Interpretations

Data presented on within-case analyses described logical chain of evidence around strategy orientations associated with managing decisions and resources at the onset of VUCA and prevailing crisis concerning growth uncertainties and market volatilities in the investigated ten MY-SMEs firms. However, these preliminary findings were purely numerical considerations on consistency verdicts (Miles & Huberman, 1994), and shall be further analysed to ascertain more distinctive patterns and implications with the study's research propositions.

Whilst this was an appropriate technique to identify significant and recurrent activities or initiatives in SDM and Strategy Paradigms in MY-SMEs firms, further analysis via cross-case evaluations shall be conducted to validate the researcher's interpretations on the following key areas concerning subjected analysis and details described in Table 4.4. The code applications guide (Table 4.2) was also considerably employed as the researcher's reference for phrasings and descriptions to confer meaningful insights into concepts used for explanation of results and interpretations.

The congruency of coded theme occurrences with the contextual strategy implications of UAs analysis on the ten MY-SMEs firms, allowed the researcher to develop deeper interpretations with perspectives that complement the study's research propositions. The listed seven 'Researcher's Interpretations' allowed combinations of different elements of decision-making and strategy considerations to satisfy the diverse needs of the case studies.

Using notable quotes from interviews and supporting notes on researcher's observations, established coherency of thematic based interpretations with research propositions suggests that the level of strategic practices throughout each within-case study firms match the *four-basic rationale for 'holistic' decision-making* with concepts derived from the conceptual framework for SME Strategic Regeneration. Table 4.4 also presents the overview of researcher's interpretations in tabulated format for ease of visual comparison.

Table 4.4: Overview of Researcher's Interpretations

Item	Subjected Within-case Analysis & Details	Researcher's Interpretations	Notable Quotes from Interviews	Supported by Interview Notes & Observations (Refer to Appendix B1)	Research Proposition Correlations	Proposition Conclusion
Interpretation #1	<i>Firm's internal planning activities on establishing achievable tasks related to 'Prevalence of growth frontiers' at the onset of VUCA environment or crisis are highly focused on 'Policymaking' followed by 'Value capture'.</i>	Results obtained corresponded well with interview (Q3, Q4, Q5 and Q6) & observation deductions that 'Firm orientations' towards SDM and REACTING (UA1) to reduce the crisis impact involves exploring interlacing objectivities and exploiting organisational integrity to either implement scaling-up profitability or scaling-up growth. Hence policymaking to enhance value capture for the business suits well with MY-SMEs firms' recovery strategy including avoiding restarting with a new business at the onset of possible 'Decimation' crisis.	<p><b>Case 1:</b> "... we have demonstrated that we are agile to expand and also downsize at the point of time we needed to implement the necessary changes to the business...." (Company C)</p> <p>"Our resources are very limited nowadays particularly financial resources... but if we continue to cut further then we cannot stabilise the factory operations when we need to start again..." (Company F)</p> <p><b>Case 2:</b> "...we continue to invest in our people... we want the staffs to stay on their job and be fully engaged with the change implementation as we expand the business..." (Company B)</p> <p>"We have always been clear and will continue to be clear on both our immediate and long-term strategies in the business."; "... provided the access to capitals and funds are also achievable for our rapid transformation plans." (Company I)</p>	<p>Company C – "...the firm seems to be optimistic to recover despite having to continue operating the business minimally, with major cost reduction and drastic measures in place."</p> <p>Company F – "This entails steeper learning curve to be undertaken by the firm with tremendous pressure to mitigate the ever-present highly detrimental market risks."</p> <p>Company B – "The firm is on the uphill stage in its expansion phase and continue to do so despite COVID-19 impact to the business. The firm also seems to be radically shifting to become more competent with building its competency and absorptive capability."</p> <p>Company I – "Despite the reduced sales velocity and turnover rates, revenue remains stable which is a 'harvested' advantage from strong innovative decisions on e-commerce platform adoptions made in the past. This could well be a strong contribution to its current achievement in its business value growth and lifecycle stages."</p>	<b>H1.</b> <i>The FO is to a significant extent, dictated by the firm's prevalence of growth frontiers (Prevalence) at the onset of discontinuous change and external environmental turbulence.</i>	Contextual implication of <b>H1</b> is <b>fully supported</b> by research findings.
Interpretation #2	<i>At the onset of 'Signs of crisis' particularly 'Acutely affected' (Case 1) and 'Moderately impacted' (Case 2); the 'Firm orientations' are highly focused on 'Inertia' followed by 'Structure'.</i>	The firm's 'Agency to reform' involve organisational commitments on REACTING (UA1) to reduce the crisis impact via explicitly exploring organisational call to actions and exploiting capability to deliver crisis interventions.	<p><b>Case 3:</b> "We used to serve and supply our products to our industrial customers... now, their business too is halted..." (Company E)</p> <p>"... I think the strategic decision would be to decide on whether to carry on the business or just call everything off." (Company G)</p> <p><b>Case 2:</b> "It's also a newly created position being part of the company's future expansion plans... We discovered that we needed to</p>	<p>Company E – "The firm is heavily relying on its principal technology partner who owns the proprietary formulations to mitigate risks. Bounded by legal and contractual obligations with the principal, all matters pertaining to corporate strategic decisions must be decided upon the principal's approval."</p> <p>Company G – "With temporary drastic measures on cost control, sustainable recovery via implementation of business model and innovation strategy at the</p>	<b>H2.</b> <i>The firm's agency to reform (Agency) is to a significant extent, dictated by the FO at the onset of discontinuous change and external environmental turbulence.</i>	Contextual implication of <b>H2</b> is <b>fully supported</b> by research findings.

Item	Subjected Within-case Analysis & Details	Researcher's Interpretations	Notable Quotes from Interviews	Supported by Interview Notes & Observations (Refer to Appendix B1)	Research Proposition Correlations	Proposition Conclusion
			<p>adapt and handle our operations differently than what was used to be practiced." (Company B)</p> <p>"If the pandemic did not happen, we would have just continued running the restaurant... now venturing into frozen 'cooked' food supplies..." (Company D)</p> <p><b>Case 1:</b> "... when talking about dealing with change, we take into account internal and external factors... before implementing any specific future strategy and measures... and truly reflect positive utilisation of our limited resources..." (Company A)</p>	<p>current stage of its 'birth' lifecycle remains unexplored."</p> <p>Company B – "Although unfamiliar with VUCA terms, the firm is taking steps to prepare for impact of major crisis and future uncertainties. Major transformation has been planned and has commenced before the COVID-19 situation appeared."</p> <p>Company D – "Despite low frequencies of dine-in patrons sales revenue from take-away service has been on the increase. This has triggered the firm to consider slight change in business operations being part of mitigating risks under prevailing economic crisis."</p> <p>Company A – "Not particularly familiar with managing VUCA. Typical crisis experienced in the past were business operations and market' competition related issues. No evidence of specific process and job function allocated for crisis management and interventions."</p>		
Interpretation #3	<i>The firm's 'Agency to reform' with organisational capability to deliver results are highly focused on 'Managing resources' followed by 'Transformation'.</i>	Firms' efforts in RECOGNISING (UA3) interlacing objectivities of improving and identifying crisis interventions reflect upon its organisational inertia to reassess organisational, operational and economic resilience.	<p><b>Case 1:</b> "We have a very limited resources to specifically assign focus on strategic planning stuffs..." (Company A)</p> <p>"... The business environment is crucial for us if we need to successfully regain our healthy state of business... despite the fact that we are pursuing digital transformation... we still lack real revenue stream because our sector is heavily reliant on actual physical lodgings..." (Company C)</p> <p>"We are still working on the implementation plan... If situation persists, we will need to liquidate the asset and retain our cashflow health..." (Company F)</p>	<p>Company A – "Despite the 'consciously competent' ability to perform value stream mapping and continuous improvement methodological approach, the element of coping with 'future-preparedness' remains lacking."</p> <p>Company C – "The firm and its business are unsure on the positive achievement of immediate strategy outcomes under current uncertainty. The lack of immersive adoption and utilisation of environmental scanning to design and develop a strategic recovery path is predominantly dictated by its organisational capability and formalised SM limitations."</p>	<b>H3.</b> <i>The nature of FO response in terms of managing strategic resources at crisis onset via the firm's agency to reform (Agency) is positively correlated with its Dynamic Capabilities</i>	<i>Contextual implication of H3 is fully supported by research findings.</i>

Item	Subjected Within-case Analysis & Details	Researcher's Interpretations	Notable Quotes from Interviews	Supported by Interview Notes & Observations (Refer to Appendix B1)	Research Proposition Correlations	Proposition Conclusion
			<p><b>Case 2:</b> "What we are doing now... is in accordance with our recovery plan... the future behaviour of future customers are also key influences on whether the objectives we fix now... would be useful for us then..." (Company D)</p> <p>"We have dedicated hands-on management team who are also able and competent in performing operational tasks..." (Company I)</p> <p><b>Case 3:</b> "... using proper resources management tools to ensure cost effectiveness and manage our project risks better." (Company G)</p>	<p>Company F – "The firm was demonstrating more focus on defining the strategic problems from arising compelling situation at the onset of COVID-19 impact of new norms on its major industry player clientele. Despite being an ISO certified manufacturing company, evidence of informalised decisions do appear particularly in managing strategic pathways to reform"</p> <p>Company D – "Clear evidence of ability to explore and exploit current and future opportunities via actions taken to restructure the business model and focus into processed food manufacturing/packaging value offerings."</p> <p>Company I – "The ambidextrous disposition of the firm in explicating business reform and proponents of value creation to the industry and sector it operates in demonstrates strong dynamic capabilities at hand."</p> <p>Company G – "Reactionary decision imperatives were observed but are relying solely on the external environmental condition improvements. The firm demonstrated struggles in explicating strategic issues from the resulting crisis it faces. Hence, the evident lack of dynamic capability may impede achievement of positive rate of reforms."</p>		
Interpretation #4	<i>Firm's 'SM foundations' in implementing institutionalised competencies and processual capability to manage</i>	<i>This corresponded well with interview (Q5, Q6 and Q7) &amp; observation deductions with firms' management level decisions related to its organisational capability to deliver recovery &amp; business results which hinges upon</i>	<p><b>Case 1:</b> "We are looking to transform how we do business and maybe the business itself... we are not sure yet how but that's the long-term vision..." (Company F)</p>	Company F – "General management approach to making-decisions and managing resources at the onset of current market turbulence is purely dictated by strong entrepreneurial attributes and past experiences."	<b>H4.</b> <i>The firm's agency to reform is dictated by managerial ambidexterity implications on strategic options presented at</i>	<i>Contextual implication of H4 is fully supported by research findings.</i>

Item	Subjected Within-case Analysis & Details	Researcher's Interpretations	Notable Quotes from Interviews	Supported by Interview Notes & Observations (Refer to Appendix B1)	Research Proposition Correlations	Proposition Conclusion
	<i>'Ambidexterity' directly correlates with its 'SDM configurations' to shift organisational 'Sensing' aptitude and behaviours. This directly ties with its 'Ambidextrous dispositions' in improving firm's absorptive capacity with 'exploration of problems'.</i>	efforts in RECOGNISING (UA3) decisions and strategies for crisis interventions.	<p>"We are taking advantage of this unforeseen window to tighten up our cost management and reorganising..." (Company H)</p> <p>"... we could look into diversification of products and services and possibly become an OEM ourselves." (Company J)</p> <p><b>Case 2:</b> "As a matter of fact, we drafted and set in motion our 3-to-5-year plan last year... however, due to the market uncertainty... we also decided to consider a monthly and quarterly period of trial execution on certain key initiatives..." (Company B)</p> <p>"... we will continue to stay alert for developmental initiatives to continuously improve our business...The resulting outcome... a more effective strategy and ability to meet our goals on expansion." (Company I)</p> <p><b>Case 3:</b> "In the immediate future, it is clear we have no option but to keep the company dormant... for longer-term, perhaps we may revive the company when we are able to..." (Company G)</p>	<p>Company H – "At the onset of current market downturn, the firm relies on parent holding company to support on resource allocation and objectivities concerning strategic way forward. Noteworthy advantage this firm possess over its competitors alike are the access to funds for immediate recovery and potential buyout with consideration of profit contributions to the parent organisation"</p> <p>Company J – "Survival status remains uncertain until a much clearer outcome of external environmental shifts is visible. The restructuring process which has taken place remains a temporary solution to prevailing uncertainty in sustaining existing business model in the longer-term."</p> <p>Company G – "Reactionary decision imperatives were observed but are relying solely on the external environmental condition improvements. The firm demonstrated struggles in explicating strategic issues from the resulting crisis it faces. Hence, the evident lack of dynamic capability may impede achievement of positive rate of reforms."</p>	<i>crisis onset, positively shaped by its Dynamic Capabilities to administer strategic responses</i>	
Interpretation #5	<i>The firm's 'Reactionary' provisions for change are influenced by internal exploitations of organisational integrity and interlacing objectivities with organisational 'Inertia'. The</i>	The firm's 'Envisioned SF frontiers' are influenced by READING (UA2) eventful actualities towards reducing the plausibility of crisis occurrence. This corresponded well with interview (Q8 and Q9) & observation deductions on firms' shifting business focus and objectives with substantial deliberations on remodeling the business.	<p><b>Case 1:</b> "... we have no real sight on those period and timeline just yet... unless we change our business model...." (Company C)</p> <p>"As far as business continuity, we shall continue to be in this business as the solutions and services we are offering is still in demand...." (Company J)</p> <p><b>Case 2:</b> "... we need to be more strategic to manage the current world crisis than being</p>	<p>Company C – "Struggling with survival of the business, the exhibited typical behaviour of SME organisation and management suggested the firm to rely heavily on governmental assistance and external environmental shifts to reform."</p> <p>Company J – "More focused on intermediate growth recovery with strategic shifts driven towards managing sustainability of legacy contracts and business values with established clienteles."</p>	<b>H5.</b> <i>The firm's choice on future transformation pathways to a significant extent, dictates the FO orientations which will be directly associated with its strategic postures at the onset of</i>	<i>Contextual implication of H5 is fully supported by research findings.</i>

Item	Subjected Within-case Analysis & Details	Researcher's Interpretations	Notable Quotes from Interviews	Supported by Interview Notes & Observations (Refer to Appendix B1)	Research Proposition Correlations	Proposition Conclusion
	<i>strong association between 'SI orientations' with 'Firm orientations', are also directly correlated with its high real-world forward projections of 'Envisioned SF frontiers' on 'Business continuity'.</i>		<p>predominantly tactical... we have to understand better on how to strategically position the business into the future..." (Company B)</p> <p><b>Case 3:</b> "We do what is necessary up until now... we were never prepared for this..."; "We are not able to sustain our operations for now, and we are deciding to freeze the company until further notice..." (Company G)</p>	<p>Company B – "Although future-preparedness is not a conventional terminology, the practice of being prepared for tough times has been an embedded element in management 'style' of the company and business."</p> <p>Company G – "The onset of COVID-19 and business downturn has raised a major concern on business continuity of the firm which is still at the early 'birth' stages of growth and lifecycle. The only plausible stable path to reform would entirely be dependent on the rate and pace of recovery of its major industry players clienteles. Nonetheless this is beyond the firm's influence and direct control."</p>	<i>discontinuous change and external environmental turbulence</i>	
Interpretation #6	<i>Firm's capability to deliver 'Transformation' is after 'Managing resources' by exploring organisational aptitude 'Sensing' on the outliers to strategy-making associated with 'Exploration of problems' and 'Inexplicability of issues concerning 'Sectoral landscape'. The firm's 'Agency to reform' are influenced by 'SDM configurations</i>	<i>This corresponded well with interview (Q10, Q11 and Q12) &amp; observation deductions on accounted stage of lifecycle of the firm and its deliberations on exploring institutionalised competencies and exploiting processual capability to overcome eventful actualities of VUCA environment or crisis over concerns on reshaping the business's 'Sectoral landscape'. With fairly low 'Preparedness' of the 'Firm orientations', the ensuing outcome to SDM in MY-SMEs via future-preparedness &amp; exploiting positive outcomes on strategy paradigms and pathways to reform remains latent or unexpressed.</i>	<p><b>Case 1:</b> ""If the sector recovery is lagging behind in terms of what we anticipate... the outcome of strategy we implement now would be negative...we would probably have to exit the business, then..." (Company C)</p> <p>"Every strategic plan was to manage risks on each project... and they were all short-term based... Management involvement is crucial... on more strategic decisions on long-term future so that we become more prepared for instances like this COVID-19 event." (Company H)</p> <p>"The market was very mature for us in the past... When COVID-19 appeared, we realised that the indirect threat to the business is also a direct threat to us." (Company J)</p> <p><b>Case 2:</b> "... as a company we still have a long way to go about effectively implementing our current changes and strategy... once we</p>	<p>Company C – "Unfamiliar with academic business management terminologies, despite non-institutionalised risk management processes, the firm is relying on its EO to actively deal with impeding crisis."</p> <p>Company H – "More focused on intermediate growth recovery with strategic shifts driven towards managing sustainability of legacy contracts and business values with established clienteles."</p> <p>Company J – "Crisis intervention strategy and related risks mitigation at the onset of current market downturn is dictated by the firm's agility to manage its cashflow health. However, as the business relies heavily on its sole profit out of commissions, the resilience of its equity shareholders to retain their stakes would dictate the direction of the firm."</p> <p>Company B – "The shareholders are beginning to realise the importance of</p>	<b>H6. The firm's SDM on strategic regeneration response at the onset of discontinuous change and external environmental turbulence, specifically its repositioning and reinvention (or transformation) efforts, will determine its post-crises lifecycle stage and business continuity.</b>	<i>Contextual implication of <b>H6 is to some extent supported</b> by research findings. Implications of strategic regeneration on the business remains to be determined with future research.</i>

Item	Subjected Within-case Analysis & Details	Researcher's Interpretations	Notable Quotes from Interviews	Supported by Interview Notes & Observations (Refer to Appendix B1)	Research Proposition Correlations	Proposition Conclusion
	<i>and 'Immediate' exploration of timeline for achievable results.</i>		<p>become more efficient, we can be even more proactive to determine our future strategies." (Company B)</p> <p>"If we decided to call-it-off and change the business entirely... the conventional restaurant model proves to be a 'sunset' industry..." (Company D)</p> <p><b>Case 3:</b> "... all our planning has been short-term oriented... we have to start preparing for an uncertain future rather than what we have always been used to..." (Company G)</p>	<p>institutionalised processes and improving the organisational competencies. They have started to employ professionally qualified management personnel to drive the company forward into the future."</p> <p>Company D – "Despite low frequencies of dine-in patrons sales revenue from take-away service has been on the increase. This has triggered the firm to consider slight change in business operations being part of mitigating risks under prevailing economic crisis."</p> <p>Company G – "Predominantly run by engineers, the firm exhibited lack of strategic management processual implementation on business aspect of handling major crisis particularly at the onset of the COVID-19 pandemic situation."; "Structured approach on decision-making is dictated by 'design approach' on troubleshooting and problem solving. Focus driven context on managing resources are complemented by project management experience of the owner-managers of the business."</p>		
Interpretation #7	<i>At the onset of 'Signs of crisis' with highly implied business implications of being 'Acutely affected' and 'Moderately impacted', the 'Sectoral landscape' deliberations of exploiting core business model is overwhelmed by</i>	<i>The firm's 'Ambidextrous dispositions' of exploring outliers to strategy-making and exploiting firm's absorptive capability directly influences the firm's processual capability in performing 'Ambidexterity' with its organisational 'SM foundations'. Deductions from interview (Q1 and Q2) &amp; observations implied that in managing strategic decisions &amp; resources, together with managing reform, MY-SMEs are to some extent 'unconsciously-</i>	<p><b>Case 1:</b> "Management decision is the key factor to get the business running. Unfortunately, the current state of COVID-19 has completely wiped out everything we have planned and made to work... This time around we are still contemplating on... move forward and survive... or completely do something different." (Company C)</p> <p>"... it will be most critical for me now to decide the future of the business... and try to survive this pandemic situations." (Company F)</p>	<p>Company C – "Undocumented strategy and strategic decision-making processes. Informal decision management purely guided by strong entrepreneurial experience on strategy imperatives. Planning and strategic activities on future preparedness remains unexplored."</p> <p>Company F – "Undocumented strategy and strategic decision-making processes. Informal decision management purely guided by strong entrepreneurial experience on strategy imperatives. Planning and strategic activities on future preparedness remains unexplored."</p>	<i><b>H7.</b> To a significant extent, the firm's ability to 'make-sense' of strategy paradigms and implement effective strategic decision management to withstand discontinuous change, external environmental turbulence and</i>	<i>Contextual implication of <b>H7</b> is fully supported by research findings.</i>

Item	Subjected Within-case Analysis & Details	Researcher's Interpretations	Notable Quotes from Interviews	Supported by Interview Notes & Observations (Refer to Appendix B1)	Research Proposition Correlations	Proposition Conclusion
	<i>'Policymaking' and 'Reactionary' provisions for change on 'Services'.</i>	competent' in building crisis resilience. However, with specific objectives of becoming more efficient and versatile in managing lifecycle and growth stages of the business, the rationale for 'Holistic' decision-making framework is potentially highly desirable.	<p><b>Case 2:</b> "... the other potential in revenue stream for us is generated via future planning.... This side of the business is somewhat affected... because almost everyone is tightening up their unnecessary or are more prudent on future spending." (Company B)</p> <p>"We were one of the first commercial precision farming facility... we are also a tech-provider... the pandemic has greatly disrupted general distribution... fortunate for us... we continue to sell direct to consumers." (Company I)</p> <p><b>Case 3:</b> "Almost all projects we have been pursuing earlier have been cancelled or postponed... This situation is particularly bad to smaller player like us."; "... all decision implementations will need to get consensus... the unprecedented COVID-19 situation really caught us by surprise... I think the strategic decision would be to decide on whether to carry on the business or just call everything off." (Company G)</p>	<p>Company B – "Beginning to document strategic processes and activities via evident transformation initiatives. More structured decision management in the works. Strategic initiatives on being future prepared at developmental stage/phase."</p> <p>Company I – "Structured strategic decision-making processes and strategic planning activities are evident and supports the clarity of its transformation initiatives. On the account of future-preparedness, the firm seems to demonstrate 'unconscious-competence' on practicing strategic foresight."</p> <p>Company G – "Undocumented strategy and strategic decision-making processes. Informal decision management purely guided by strong engineering acumen backed by past entrepreneurial experience on strategy imperatives. Planning and strategic activities on future preparedness remains unexplored."</p>	<i>lifecycle crises will influence its competency to navigate subsequent impeding future events</i>	

Source: Developed by researcher

### 4.3.3 Cross-case Analysis & Interpretations

Following the emergent patterns with regards to thematic codes and evidence review from interviews with respective UAs amongst within-case firms results, the subsequent cross-case analysis was performed to reinforce the researcher's understanding and rationalisation being part of pattern-matching and explanation-building (Yin, 2003) process in improving generalisability of findings from this qualitative study (Miles & Huberman, 1994).

The objective of sequential inductive approach on cross-case assessment for this study was to establish theoretical distinct categories of second-order logics (Maxwell, 2005) and also to ensure all important attributes of dataset are captured (Charmaz, 2006). Besides, this helps the researcher to disseminate knowledge across each individual case and facilitate deeper discourse on similarities and differences on SDM and strategy practices in MY-SMEs in dealing with the three implied broad 'signs of crisis'.

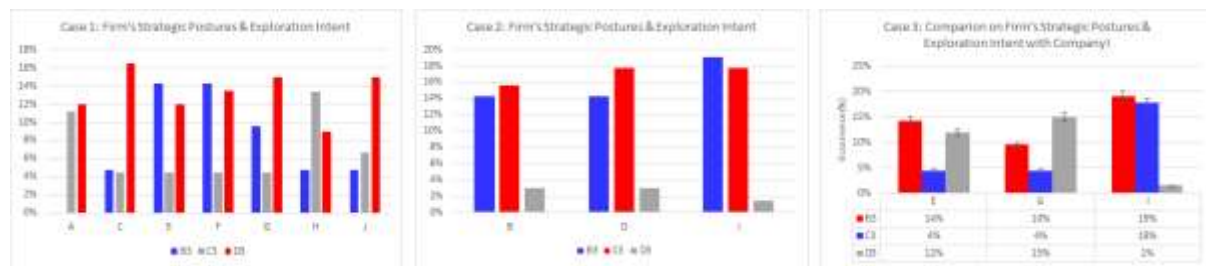
Therefore, further comparison and deliberations of within-case interpretations with the study's RQs and SR conceptual framework were performed to identify areas of convergence to explicate 'meaningful' explanations in context of MY-SMEs. Table B.4.7 (Appendix B4) shall be employed and visually displayed for the second-order logic case analysis with UAs which guided the researcher to link case studies interpretations and contextual significance of findings with SR conceptual framework to develop the study's answers to RQs.

#### 4.3.3.1 Answering RQ1

*“What are the implications of FO on the (1) business context (prevalence of growth frontiers), and (2) contextual implications (agency to reform) in managing growth uncertainties and market volatilities for SMEs?”*

Firm's strategy and decision management practices pertaining to strategic postures implied in Figure 4.8 were useful to understand the key activities and phases of strategy process in MY-SMEs. The ensuing explanations indicate that each case revealed significant difference in how the firm manages organisational focus with strategic postures at the onset of crisis with regards to exploration of provisions for change and exploitation of continuous improvements.

Figure 4.8: Second-order Logic Case Analysis on Strategic Postures Occurrences



Source data: Table B.4.7 (Appendix B4)

Case 1 firms showed significant 'reactionary' organisational behaviours on crisis or continuing 'business as usual' at the onset of change or external environmental turbulences, whilst Case 2 firms tend to place more emphasis on incremental response with slight element of radically exploiting the opportunity for continuous improvements of business health. Conversely, Case 3 firms which are at a greater extent also 'acutely affected' by the VUCA environment crisis were contrasted with exemplary Company I to determine the underlying determinants for the state of 'decimation'. Results indicated with error bars implied a significant 'deficit' of difference in majority of the data observed, whereby, *firms on the verge of decimation risks exhibited exceptionally low provisions for radical and incremental change in their organisations*. Company I was selected as the exemplary firm for cross-case analysis based on its highest total coded response frequency.

The researcher is of the opinion that the focus on such 'motivation' to 'REACT' to 'Signs of crisis' in this investigation was highly necessary to make sense of the logical sequence of attributed constructs and rationale behind the taxonomy of the proposed SR conceptual framework. The researcher's derived within-case Interpretations #1 and #2 provided complementing validations on the direct correlations between 'firm orientations', 'prevalence of growth frontiers' and 'agency to reform' in the context of VUCA environment crisis.

The organisational focus on exploring interlacing objectivities of managing its inertia and structure of SDM resulted in putting emphasis on *policymaking and value capture at the onset of growth uncertainties*. Moreover, firms deliberate on exploiting its internal organisational integrity, which imply *extensive efforts in driving implicit and explicit actions in managing tangible and intangible integrated resources and business transformation at the onset of market volatilities*.

Therefore, the direct and positive implications of 'FO' on 'Prevalence of growth frontiers' and 'Agency to reform' in MY-SMEs investigated suggested **strong contributions** via: (a) actively

improving its internal organisational resilience and integrity (i.e., ‘Inertia’), and (b) conformity of internal management policies and processes (i.e., ‘Structure’).

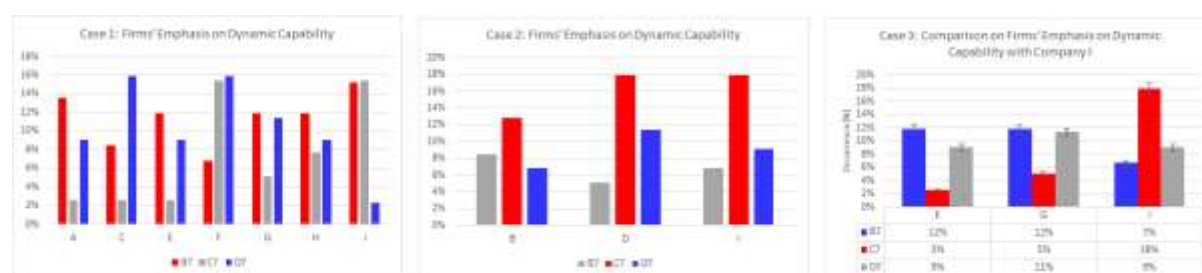
#### 4.3.3.2 Answering RQ2

*“What are the implications of dynamic capabilities on FO and the business context of managing strategic resources during crisis?”*

Analysing the second-order logic on the cases involved determining the patterns of decision-making processes within MY-SMEs firms on improving and identifying crisis interventions at the onset of prevailing VUCA environment crisis. In relations to building crisis resilience, the researcher is of the opinion that the firm’s ability to ‘RECOGNISE’ strategic choices and organisational capability to deliver strategic decisions and strategies is imperative.

Cross-cases revealed distinctive firms’ characteristics on ‘Dynamic Capability’ amongst investigated MY-SMEs. From Figure 4.9, Case 1 firms showed strong emphasis on exploring and exploiting its institutionalised competencies with immediate achievable tasks, whilst Case 2 firms tend to adopt ‘sensing’ call to actions approach on the business environment for transitional organisational positioning via exploring ‘sensible’ timeline for achievable results. Case 3 on the other hand, lacks emphasis on SDM for positioning when compared with exemplary Company I, instead, were ‘processing’ and reassessing its economic resilience due to being persistently impacted by limitations of execution timelines. From the evidence gathered, significant difference was observed across the cases on the emphasis of SDM and ‘positioning’ strategy imperatives, implying that ‘moderately impacted’ firms in context of VUCA environment and crisis were more competent in exploiting its internal processes for positive outcomes in managing highly strategic problems.

Figure 4.9: Second-order Logic Case Analysis on Dynamic Capability Occurrences



Source data: Table B.4.7 (Appendix B4)

Thus, with ‘firm orientations’ in balancing interlacing objectivities, managing internal ‘inertia’ with ‘structural’ ambidexterity on strategic decisions management is essential towards ‘sustaining’ the business resilience. This follows, from researcher’s Interpretations #3 and #4, evidence suggested that firm’s organisational aptitude towards ‘Dynamic Capability’ is strongly associated with the firm’s internal planning activities to effectively ‘RECOGNISE’ efficient organisational and operational strategies for crisis interventions.

Therefore, the direct and positive implications of ‘Dynamic Capability’ on ‘FO’ and ‘Prevalence of growth frontiers’ at the onset of growth uncertainties and market volatilities are **strongly contributed** via: (a) firm’s advantage with institutionalised competencies to manage its internal resources, and (b) processual capability to foster strategic planning on achievable implementation of organisational resilience.

#### 4.3.3.3 Answering RO3

*“What are the implications of rooted SI & SF factors on FO in developing proficiency and focus on SMEs’ strategic regeneration?”*

The researcher is of the opinion with proposition validation from researcher’s Interpretation #5 from within-case analysis, that the firm’s ability to ‘READ’ eventful actualities pertaining to VUCA environment and crisis occurrence, facilitates the deliberation of real-world forward projections and provisions for change on the positive outcome of its business future with strategy paradigms. In turn, the firm’s interlacing objectivities would influence organisational ‘inertia’ to develop adaptable internal environment to foster ‘meaningful’ strategic shifts.

Evidence of cross-case assessments over MY-SMEs firms’ ‘future-preparedness’ (Figure 4.10) substantiates that Case 1 firms’ strategy focus are concentrated on outcomes of actual crisis events with possible shifting of the business focus for business continuity. Conversely, Case 2 firms tend to explore shifting its business objectives via exploiting growth to establish positive outcomes and reducing the plausibility of crisis recurrence. Case 3 on the other hand, exhibited huge disparity on results obtained in comparison with Company I on exploring growth projections due to highly ‘reactionary’ provisions for change to mitigate intense ramifications of negative impact of VUCA environment and crisis on the business and organisation.

Figure 4.10: Second-order Logic Case Analysis on Strategic Regeneration Occurrences



Source data: Table B.4.7 (Appendix B4)

Therefore, increasing the firm's organisational proficiencies in exploring emergent patterns of strategy paradigms for Strategic Regeneration based on foresightedness with 'Envisioned SF frontiers' and synchronous considerations of Strategic Postures with 'SI orientations' **directly influence** 'FO' via: (a) establishing 'realistic' organisational interlacing objectives to generate SDM provisions on strategic change, and (b) increasing the organisational integrity and efficacies of decision management and implementations of 'actual' and continuous improvement strategies.

#### 4.3.3.4 Answering RQ4

*"How would a 'Strategic Regeneration' maturity model impact or contribute to SDM processes and strategy implementations performed by SMEs in the long run?"*

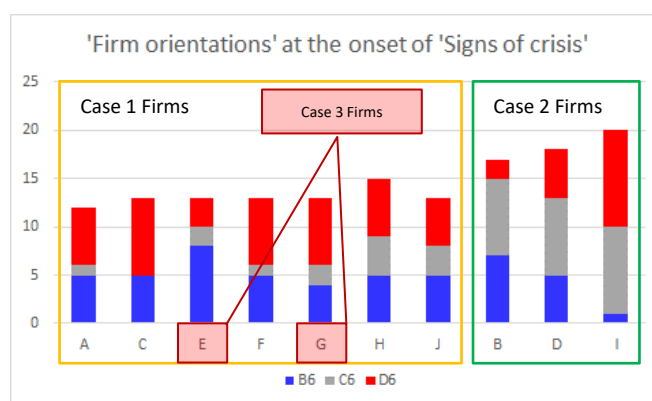
The investigated firms' 'transformation' capability was revealed from within-case analysis to be inhibited mainly by reasons associated with firm's 'immediate' timeline to achieve desirable results at the onset of eventful actualities of VUCA environment and crisis to cushion the adverse implications on the business's 'Sectoral landscape' influenced by *market volatilities*.

Based on researcher's Interpretation #6, despite the evident perceiving activities on the positive outlook of 'managing resources' under the firm's internal call to actions on building crisis resilience, firms are overwhelmed with exploring novel strategic problems and unfamiliar issues which impose outliers to business recovery strategies. Firms were also subjected to the criticality of managing limited timeline in its capability to deliver strategy implementations to negate the adverse impact of 'signs of crisis'. Researcher's Interpretation #7 expounded firms' deeper interest into exploring unconventional business model or restarting the business with adjacent 'Sectoral landscape' via internalising 'policymaking' based on achievable tasks and strategic planning initiatives.

Evidence displayed in Figure 4.11 on ‘Firm orientations’ further suggested in Case 1 firms, that low frequency of coded response hits on ‘preparedness’ was apparent in ‘acutely affected’ firms and that heavy reliance on ‘inertia’ to propel the business forward were more prominent, particularly in firms with high Capex and Opex implications of ‘sectoral landscape’ (i.e., manufacturing). The observed dissimilarity in firms’ ‘sectoral landscape’ representing ‘manufacturing’ firms was most possibly the main reason behind substantial levels of focus in organisational capability on ‘managing resources’ in the respective firms as depicted in Figure 4.12.

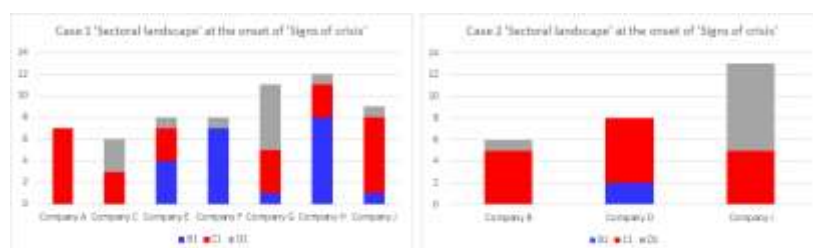
Case 2 on the other hand, revealed significant focus on organisational ‘preparedness’ with the possibility of developing better agility to manage ‘transformation’ of its predominantly ‘services’-oriented business model. Consequently, from Figure 4.13, results indicating lack of absorptive capability to explicate strategic issues for crisis interventions from Case 3 firms, particularly Company G, which was also facing acute shortfall in YoY revenues whilst still in the ‘birth’ stage of its business lifecycle, revealed further limitations concerning ‘seizing’ strategic future opportunities in its ‘SDM configurations’ approach (Figure 4.14).

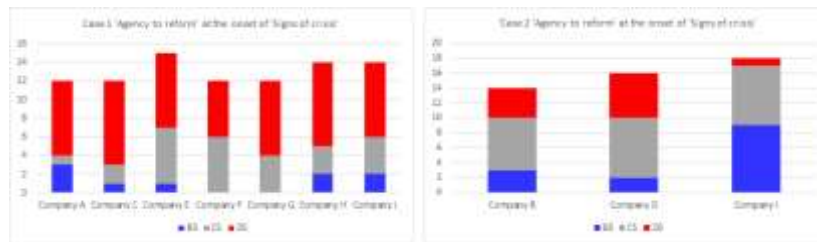
Figure 4.11: ‘Firm orientations’ at the onset of ‘Signs of crisis’ coded response frequency



Source data: Table B.4.2 (Appendix B4)

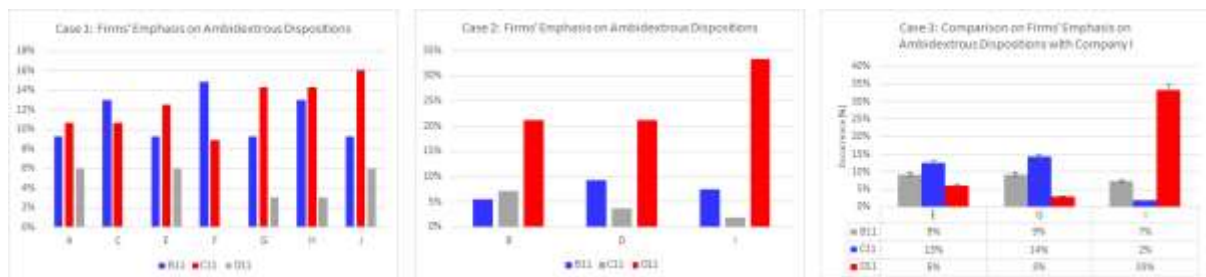
Figure 4.12: Firms ‘Agency to reform’ within ‘Sectoral landscape’ at the onset of ‘Signs of crisis’ coded response frequency





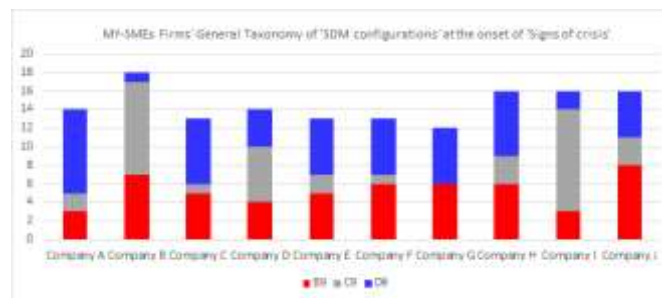
Source data: Table B.4.2 (Appendix B4)

Figure 4.13: Second-order Logic Case Analysis on Ambidextrous Dispositions



Source data: Table B.4.7 (Appendix B4)

Figure 4.14: Coded response frequency - MY-SMEs Firms' General Taxonomy of 'SDM configurations' at the onset of 'Signs of crisis'



Source data: Table B.4.2 (Appendix B4)

Thus, from the researcher's interpretations and collective observations – there are **convincing evidence of positive implications** of SR maturity model to MY-SMEs firms' SDM which involves building continuous improvements into its processual capability by fostering 'holistic' considerations of interlacing objectivities for decision-making and institutionalised competencies. In turn, the exploration of strategy paradigms linked to real-world and eventful future projections on the corollaries of strategy-making outliers, would instigate firm's agency

to reform via development of future-preparedness in exploration and exploitations of strategic future issues. Inevitably, the most significant contributions of the SR maturity model towards MY-SMEs strategy-making practices are contingent upon firms' *'absorptive capacity'* in identifying and improving crisis interventions with repeatable formalised SDM and institutionalisation of provisions for change impetus to continuously generate business continuity and sustainability at the onset of growth uncertainties and market volatilities.

#### **4.3.4 Contextual significance of findings with SR Conceptual Framework**

##### 4.3.4.1 Answering the broad research query

*“Were the brisk strategic responses to unprecedented crisis undertaken by SMEs decisive or ambiguous? Were SMEs able to respond fast enough? Could SMEs be better ‘future-prepared’ for a similar scale of detrimental and erratic disruptions?”*

Concluding the study's major findings, empirical evidence revealed that at the onset of VUCA environment and crisis, MY-SMEs firms are generally 'reactive' to external environmental disruptions and perform SDM and strategy-making informally and intuitively. Evidence suggested the absence of institutionalised strategy-analytics and structured decision-making processes to analyse holistic implications of future strategy choices and time-boundedness of strategy paradigms with respect to corollaries of being future-prepared with strategic innovation imperatives.

As MY-SMEs firms are highly owner-manager oriented organisations when it comes to making decisions, despite some evidence of straightforward strategy and decision-making processes and activities in building business resilience, these practices are mostly based on distinctive entrepreneurial skillset and past successes in managing the business. At the onset of prevailing novel crisis and discontinuous change, this has been observed to have exposed MY-SMEs to acute ambiguities in managing strategic responses. In fact, on some accounts, firms were unable to respond fast enough and succumbed to risk of business 'decimation' under a state of 'shift in turbulence' (Kipley & Lewis, 2009a).

The business 'language' used by MY-SMEs differs with management literatures, nonetheless, owner-managers are to some extent 'unconsciously-competent' at handling management theoretical concepts which implied that holistic decision-making framework rationale and guidance on strategic analytics via visualisation of autonomised techniques is potentially

desirable. In turn this would facilitate MY-SMEs firms and owner-managers to adopt benchmark best practices and maturity models with much better postures, to structure and operationalise interventions schemes and become better ‘future-prepared’ for similar scale future discontinuous change and economic disruptions.

#### 4.3.4.2 Modifying the SR Conceptual Framework with Key Associated Findings

The qualitative analytics in this study adopted ‘discourse strategies’ for generating natural language (McKeown, 1985), which is a linguistics analytical technique for determining ‘meaningful’ context from transcribed texts and how to organise coded responses in order to achieve cognitive ‘sensemaking’ and knowledge construction for effective interpretations. This was demonstrated via deliberations of ‘exploration’ and ‘exploitation’ contrast used over each secondary theme codes which was vital for the researcher to identify emerging patterns in data disassembling and reassembling process (Yin, 2015; Gaudet & Robert, 2018).

As described earlier, the code applications guide (Table 4.2) was conceived to facilitate the goal of communicating, defining, comparing and describing the contextual significance of ‘Theme Occurrence’ which was the researcher’s biggest challenge in trying to make sense of non-numeric orientations of the dataset as a preliminary analysis for the study’s array of Case Studies.

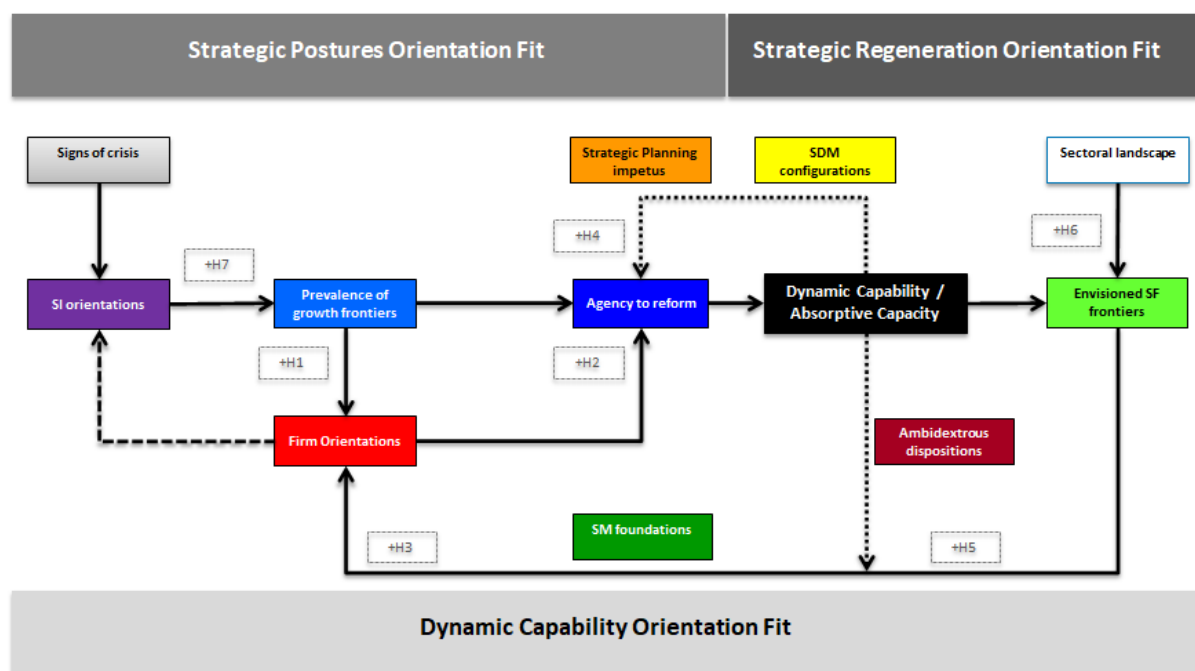
Upon establishment of the researcher’s interpretations and supported propositions, deeper perspectives into the generalisability of unified ‘holistic’ decision-making framework for MY-SMEs practical and best-practices adoption was considered. This follows that by visually articulating the thematic findings in the illustrations of SR conceptual model (Figure 2.28) with researcher’s newly acquired and own understanding based on the study’s findings, allowed the modifications on the previous framework for conception of “**SR Maturity Model**” for Strategic Regeneration decision management.

Amongst the key associated findings in this study with significant implications to the SR conceptual framework were: (i) ***FO is the foundation for implementing strategic driven thrusts concerning organisational objectivities and integrity in the advent of crisis and environmental turbulence (i.e., strategic postures orientation fit)***, (ii) ***ambidextrous dispositions of the firm/business are the most critical organisational competences to establish rapid and effective strategic choices on SR impetuses (i.e., dynamic capability orientation fit)***, and (iii) ***pre-emptive measures and rapidity of strategic response to***

*environmental turbulence and crisis are vital for ensuring SME firms' sustainability and business continuity (i.e., strategic regeneration orientation fit).*

Henceforth, by virtue of incorporating the study's key associated findings, the derived maturity model shall offer owner-managers of MY-SMEs firms practical SM principles to generate SI engagements the firm intended to enhance its business resilience and performance at the advent of crises. The SR Maturity Model represents the 'future-preparedness' of organisations with SF to ensure business continuity and achieve '*quantum-leap*' growth. Moreover, the derived maturity model shall also promote adoption of 'best-practices' targeted on organisational ability for continuous improvements specifically for MY-SMEs firms' strategy-making explorations and exploitations. Figure 4.15 describes the interdependencies of the systematically investigated and verified strategic themes for holistic decision-making impetus and the directional flow of decision-logics indicated by supported propositions (+H) produced from this study.

Figure 4.15: SR Maturity Model for Strategic Regeneration Decision Management



Source: Developed by researcher.

#### 4.3.4.3 Resulting Process Sequence of the Final SR Maturity Model for SME Adoption (with interpreted reapplications to the study's Case 3 findings)

Prior to engaging in SR strategy formulation, it is important for owner-managers to define the *strategic postures orientation fit*, *strategic regeneration orientation fit*, and *dynamic capability orientation fit* for the firm to establish broad scopes on strategic thrusts and long-term time horizons for the forward transformational shift. It would also be necessary for SME firms to involve its key internal stakeholders to drive the strategy formation and engage with external stakeholders to ensure attainable sustainability and business continuity results. The following steps shall describe the SR Maturity Model (Figure 4.15) process sequence on generating strategy paradigms for adoption by MY-SMEs:-

##### **Step 1: Signs of Crisis.**

The first step involves setting the strategic goals for SR or quantum leap business decisions by determining the implication of environmental turbulence and available strategic resources (i.e., both tangible and intangible) via affirming the impact of firm's business cycle and strata of crises with perspectives on its OLC and industry growth cycles. Established goals consisting of either (a) organisational, (b) operational or (c) economic resilience may be further prioritised by determining the firm's strategic decision orientation with the most effective SI orientation to generate time-bounded (i.e., short-term, mid-term and long-term temporal dimensions) and efficient strategy frontiers for each phase of reform. Using the study's *Case 3* as an example, a firm facing 'decimation' crisis in its corresponding 'maturity' lifecycle phase at the onset of critical resource instability may aim to aggressively reinvigorate its economic resilience by restarting with a new business model (or products/services reintroductions) as an immediate short-term solution for business continuity. Besides, the firm must increase its internal focus on FO towards improving its organisational and operational parameters in building crisis resilience as a mid to longer-term measure.

##### **Step 2: SI Orientations.**

Subsequently, the aim of the second step is to initiate SR decision profiling with prevalence of growth frontiers and agency to reform via aligning FO with organisational needs and firm adaptability with business needs. Accordingly, in order to link effective strategy paradigms and engagements to institutionalised strategic decision-making processes, the firm must establish effective continuous alignment of strategic decision frontiers and strategic options to modify

or enforce strategic resources management decisions. Here, the corollary of mapped strategic paradigms (Morgan, 2011) for the firm at its '*crisis tipping point*' would hinge upon its 'reactionary' SI orientations or 'business as usual' as its immediate conventional reform activity to reduce the impact of crisis occurrence. Moreover, the firm ambidextrously deliberates an 'incremental' SI oriented transitional period decision stance for continual growth aggregated goals via preparing and increasing its value offering and total outputs on supply of goods and services. Conversely, with well institutionalised FO, the firm may well deliberate a more longer range 'radical' critical reform continuum based on transformation strategy paradigms as its future SI orientation, with the objective of developing future-preparedness.

### **Step 3: Prevalence of Growth Frontiers.**

Forming the basis of defining strategic decision frontiers involving key technological/commercial changes exogenous to the firm's business lifecycle phases and growth cycles, prevalence of growth frontiers ideally reflects the continuous improvement of the mission and vision of the business amidst residual uncertainty of future environments. Adopted from contextual relevance of growth models depicted in Figure 2.21 (Greiner, 1998), Figure 2.26 (Baghai et al., 2000) and in context of this study, growth frontiers are aggregated as (a) conventional growth, (b) critical growth, (c) continual growth and (d) elevated (or breakthrough) growth, which corroborate with providing new perspectives particularly for SMEs and its owner-managers on deliberating the optimal process/strategy for business diversifications (Yue & Hanxiong, 2011; Bachtiar, 2020).

### **Step 4: Firm Orientations.**

In context of this study, the corollaries to SDM and management of strategic resources with SM foundations and strategic planning impetuses, are strongly dependent upon the recurrence of endogenous operationalisation of FO influence over the firm's ambidextrous dispositions and envisioned SF frontiers on quantum leap strategic regeneration horizons. Case 3 findings indicated that the FO and particularly the firm's 'inertia' and 'preparedness' reorientations were instrumental in strategic issues exploration and defining the policymaking and implementation timeline of SI orientations. Furthermore, this study's findings substantiated that coherent organisational aptitude and structure/processes facilitating the construction of strategic options would allow the development of heterogenous strategy paradigms and increase the efficacies and consistencies of SDM configurations and dynamic capability of the firm.

### **Step 5: Agency to Reform.**

In context of the study's findings, the agency to reform is aggregated into the firm's efficacy evaluation on its value creation strategy to survive VUCA environment and turbulent crises (Lepak et al., 2007; Kipley & Lewis, 2009a) by overcoming rational constraints via (a) conventional reform, (b) continual reform and (c) critical reform. Notwithstanding exposing the firm to a more intricate and complex decision-making proponents, the synergy between the firm's agency to reform and FO to some extent enables the firm to promptly determine an optimal strategic posture with institutionalised dynamic capability to reduce the crisis impact and generate business continuity and sustainability. For example, this step uncovers the robust implications of explorative/exploitative strategic options considerations based on the future prospects of either (a) scaling-up growth, (b) scaling-up profitability or (c) remodelling/restarting the business. Moreover, associated findings from this study indicate that 'managing resources' was the most critical aspect of instigating the agency to reform with highly 'reactionary' strategic postures in such crisis-impacted firms.

### **Step 6: Dynamic Capability/Absorptive Capacity.**

In this step, the owner-managers assess the firm's adaptability and robustness of projected strategic opportunities with optimistic forecasts on sectoral recovery in parallel with evaluating accommodated strategic problems with pessimistic forecasts on OLCs and growth cycles trajectories. Followingly, the firm takes into account immediate 'strategic planning impetus' and adapt the most robust strategic choice consolidated across plausible reform scenarios based on its 'ambidextrous dispositions' and deliberated strategic regeneration horizons. In fact this is consistent with this study's findings, whereby, further assessments on the robustness of deconstructed SR strategy proponents and implementations via 'SDM configurations' is vital to determine 'inexplicability of issues' which contribute as outliers to improvement and identification of suitable crisis interventions.

### **Step 7: Sectoral Landscape.**

Upon verifications of goal-oriented and scenario-dependent strategy of choice, the owner-managers reassess the implications of prevailing onset of discontinuous change and external environmental turbulence on SDM and strategy paradigms, instigated by variants of industry trends and sectoral growth cycles in tandem with the firm's effective lifecycle phases. This shall be the basis to identify and enable optimal strategy and to refine strategies that are both effective and efficient in supporting the deliberated SR goals and objectives. The researcher's

interpretations on answering RQ1 and RQ2, backed by associated findings from this study indicated that inherent limitations of prevailing turbulence of industry's growth cycles and economic uncertainties acutely influence strategy imperatives and decision-making in crisis impacted firms. Relatively, strategic postures orientations with firm's strategic deliberations on exploring/exploiting unconventional and/or core business model was observed to motivate the owner-managers to actively respond to prevailing threats of highly VUCA external environments. In turn, this *exogeneous-factor* appraisal step would allow the firm to undertake informed decisions on specific risk preferences with relative implications on its post-crises lifecycle stage and business continuity.

#### **Step 8: Envisioned SF Frontiers.**

Finally, in order for the owner-managers to conclude the holistic decision-making process for the development of strategy roadmaps and implementations, defining the optimal strategic choice positioning and future-competitive assessments are supported by 'real-world forward projections' explorative strategy antecedents and 'eventual actualities' of exploitative strategic opportunities. This particular step in the unified SR Maturity Model framework facilitate the triangulation and interpretations of emergent patterns of strategy paradigms with 'envisioned SF frontiers' which will dictate the course of specific strategy related actions. Moreover, the firm recognises this stage as a starting reference point to organise the resulting strategy outcomes around the set of overarching dimensions of environmental dynamicity with the 'interlacing objectivities' and 'organisational integrity' via institutionalised FO. Furthermore, this would provide a more tactical definition for the firm's 'call to actions' in achieving time-bounded 'provisions for change' and strategy outcomes. By virtue of determining the firm's 'capability to deliver' explorative/exploitative 'strategic planning impetuses' associated with either (i) external pull factor generated by the business environment, (ii) internal push factor driven by the firm/industry growth orientations, or (iii) organisational weight factor influenced by business continuity, the firm would be able to capture the paramount steps and constituting elements in the SR process leading to a more efficient and effective 'policymaking' and 'value creation' for strategic reform.

## 4.4 Summary of the Chapter

The results of eliciting MY-SMEs strategy-making practices at the onset of external environmental disruptions and uncertainties were enlightening to the study. The UAs showed consistent and strategic fit for cross-case analysis for ‘Acutely affected’, ‘Moderately impacted’ and ‘Decimation’ crisis profiles on case studies. The hierarchical scales of employed definitions for primary codes and secondary codes were not tested for alternative interpretations, but the resultant frequencies of coded responses indicated substantial manifestations of contextual meaning and relationships between the study’s investigated constructs and variables.

Through the study’s descriptive analytics of coded response frequencies on thematic occurrences, it was found that the ten investigated MY-SMEs firms of various sectors and industries considered ‘Firm orientations’ as the *most recurring* priority in building crisis resilience, and consecutively followed by ‘SDM configurations’, ‘Ambidextrous dispositions’, ‘Strategic planning impetus’, ‘SM foundations’ and so forth. ‘Sectoral landscape’ was the least prioritised issue on exploration and exploitation of strategy paradigms. All firms revealed substantiated organisational emphasis of UAs in managing prevailing VUCA environment and crisis.

In summary, the qualitative semi-structured interviews were transcribed for systematic open-coding thematic recognitions with tabulated frequency/occurrences results for data analyses to generate deeper insights and interpretations in addressing the RQs and examining the study’s propositions. Accordingly, the reliability of evidence from semi-structured aided interviews and qualitative analysis’s construct and external validity were satisfactorily in its entirety via the employment of ‘Interview Notes Template’, company profiling observations, in combinations with the study’s MCS and cross-case examinations.

The conceptual framework was refined after conclusive findings were made with researcher’s interpretations and supported propositions (H) to generate the SR Maturity Model for SME Strategic Regeneration ‘holistic’ decision management. The following Chapter 5 shall discuss and uncover further contextual implications of these findings via critical review of the RO and conclude with statements on research contributions.

## **Chapter 5: Discussions, Conclusion & Recommendations**

### **5.1 Preamble on Research Discussions**

The intent of this research was to bridge and extend the concepts of continuous improvements to SME's strategy-making practices with future-preparedness in managing VUCA environment and crisis. This study was initiated by attempting to provide a validation of the interdependencies of emergent thematic roles of SM, SI and SF constructs to shed light on the strategy, strategic decision-making and dynamic capability orientations of MY-SMEs. The study confirmed the explicit association and order of recurring priorities of explorative and exploitative SDM configurations with the interlacing organisational objectivities of FO in managing recovery strategies with the firm's ambidextrous dispositions on change impetus.

This section shall focus on the critical review of RO and managerial implications of 'holistic' decision-making framework to MY-SMEs. Critiques presented in this section shall also be based on the disseminated knowledge from compiled literature review in Chapter 2 in support of researcher's arguments on findings and way forward with the presented thesis. The chapter shall conclude with statements on the research's theoretical contributions and contributions to managerial practice.

### **5.2 Critical Review of the Research Objectives (RO)**

This thesis via its qualitative MCS examined the phenomenon of SM, SI and SF within the real-life context of MY-SMEs operations. This approach to the design of the research was vital for the purpose of understanding the unique organisational behaviours and management aptitude of each distinctive individual firms in trying to survive in a difficult environment which was adversely affecting the business.

In pointing out the number of issues which will be significantly essential to consider for managerial practices on SDM and strategy paradigm deliberations, the researcher had presented answers to the broad research query and detailed responses to RQs in the previous

section. The study was completed successfully, despite overcoming the ‘new normal’<sup>23</sup> on close contact restriction implications due to the COVID-19 pandemic situation by conducting qualitative research interviews via unconventional method of VOC. Besides, the resultant interview transcripts and observations were satisfactorily able to generate significant findings. Furthermore, the extreme challenges imposed on SMEs with the advent of radical futures of ‘new normal’<sup>24</sup> is amongst the many novel crisis faced by MY-SMEs amidst growth uncertainties and market volatilities this study was portraying.

With the goal of accomplishing the ROs, the study was pursued by conducting a focused literature review on the key enablers of SME growth and maturity. Besides the broad review of theoretical perspectives on SM, SI and SF, a contextual review of underpinning theories of CT, RBV and Dynamic Capability was consecutively performed from the extant literature. Subsequently, empirical research on ten distinguished MY-SMEs firms were performed which aimed to establish a better understanding and insights into real-world accounts of the theory in light of the factual observations on MY-SMEs’ strategy and management practices.

Three major case studies clusters were identified based on the pertinent implications of unique ‘Signs of crisis’ impacting each individual firms meeting the legitimate classification of SME definition guide by SMECorp. The researcher then extensively employed the research design & methodology (Chapter 3) and meticulously analysed the carefully collected qualitative data and generated findings against the ROs. MCS and secondary data from observations were used for triangulation purposes which ensured the satisfactory reliability of empirical evidence. However, there are limitations to this research which will be mentioned in the final section of this thesis.

The results were conclusive in its depictions of the eventful actualities of MY-SMEs firms’ processual capability in managing provisions for change at the onset of eventful outcomes projections of its organisational resilience and business continuity. With this established corollary on the study’s area of investigation, justifications of the ROs were fulfilled via the researcher’s inferences with supporting proposition and deeper interpretations by providing concise answers to RQs. In turn, the conception of the SR Maturity Model for SME Strategic

---

<sup>23</sup> Source: <https://www.who.int/malaysia/emergencies/covid-19-in-malaysia/information/the-new-normal> [Accessed 5/06/2021]

<sup>24</sup> Source: <https://www.pewresearch.org/internet/2021/02/18/experts-say-the-new-normal-in-2025-will-be-far-more-tech-driven-presenting-more-big-challenges/> [Accessed 5/06/2021]

Regeneration decision management was realised after modifications of the research's conceptual framework.

### ***5.2.1 Emerging Issues on SDM for MY-SMEs from the Perspectives of Research Findings***

The desire to stimulate economic growth and maturity via the adoption of EO approaches and owner-managers' autocratic experiential decision-making styles has been a common theme in managing the business (Zainol, 2013; Putniņš & Sauka, 2020) particularly for MY-SMEs firms. In fact, autocratic behavioural dispositions in SME firms are still seen as the foundation of decision-making imperatives and drivers for business continuity and effective transformation of its growth and performance.

Conversely, the magnitude of firm's approaches on FO was found to distinctively reflect merely the organisational aptitude and behaviour when dealing with 'interlacing objectivities' of supply chain and resources management within the context and boundaries of the firm's external stakeholders and business ecosystem (Mariadoss et al., 2016). Moreover, it was evident in all cases that affirmed SO was adopted via conventional focus of fragmented strategic planning impetuses on non-institutionalised EO, market orientation (MO) and technology orientations (Obeidat, 2016).

This study's findings demonstrate the moderating implications of FO on firm's SO via 'institutionalised competencies' to adapt its structural processes and 'organisational integrity' to implement sustainable supply chain and strategic resources management. As articulated in this study, FO refers to the foundations of organisational and owner-managers' recognition on (a) strategy knowledge – to assimilate organisational and processual 'structure', (b) strategy alignment – to synergise internally driven processes with 'preparedness' for strategic decision-making imperatives, and (c) strategy outcomes – continuously reinvigorate organisational driven 'inertia' on performance and resources levelling, in order to manifest optimal strategic shifts and transformational imperatives via SR.

Furthermore, the study's findings provide owner-managers with new perspectives on strategy-making and the practical insights into the adoption of SF rooted FO that can lead to successful deliberations of optimal and effective strategic choices for rapid business reform and recovery initiatives. Besides, it would be 'insensible' for firms to continue employing 'traditionally' fragmented approach in generating strategic goals based on restrained boundaries of internal

and external environmental scanning; rather, MY-SMEs should focus on ‘designing’ strategy paradigms that promotes higher efficacies of SOs.

In the case of SR at the onset of highly uncertain future and volatile business environments, this study has confirmed with supported empirical evidence that the firm’s ability to strategically and effectively adapt to rapidly changing external environments may be fully realised with factors associated by elementary assimilation of FO on: (a) strategic postures reorientations – *via institutionalising effective and efficient structural processes and standards with situationally fitted SI foundations in order to propel transformative organisational objectivities and integrity*, (b) dynamic capability reorientations – *via the augmentation of firm’s absorptive capacity and institutional ambidexterity with SM foundations to circumnavigate outliers to strategy implementations*, and (c) strategic regeneration reorientations – *via continual repositioning, refocusing, realigning and redeploying strategic options and time-bounded effective strategy frontiers with assimilated SF foundations at specific stages in the firm’s OLC and growth cycles or during/in the advent of ‘signs of crisis’*.

Therefore, the discretionary roles and purpose of the attested **SR Maturity Model** (Figure 4.15) to foster firm’s operative ‘agency to reform’ with SDM via adoption of institutionalised FO were observed to be highly timely and greatly necessitated for MY-SMEs. This follows that internal planning activities in developing recovery and reform strategies with ‘prevalence of growth frontiers’ must correlate to the firm’s interlacing objectivities and capability to deliver achievable tasks to ensure a positive outcome of explorative-exploitative SOs (Acar & Özşahin, 2018; Al Mamun et al., 2019).

#### 5.2.1.1 Implications of Modern Management Thinking on SM praxis for MY-SMEs

Inaction was found to be the riskiest response to external environmental turbulence and was attested to be detrimental to the ‘acutely affected’ firm facing with business value ‘decimation’ crisis. Despite consistently devising ways to seize advantage in an economic downturn, firms must take the first step of quantifying the impact of strategic issues via systematically assessing plausible future scenarios and protecting its strategic resources in order to safeguard the existing business.

Based on actual findings from the study’s coded interviews, variations on the firm’s taxonomy on ‘sectoral landscape’ explicitly induced direct exposures to macro-economic forces and industry cycles and megatrends. This follows, from research conducted by UBS Investment

Bank in its Q-Series Report<sup>25</sup> published in June 2020, seven megatrends were identified and have been postulated to shape the post-pandemic world of business, signalling major strategic shifts to continually pivot on the magnitude and velocity of firms 'agency to reform'. The seven key post-pandemic megatrends include: (1) drastic improvements to healthcare leading to higher life expectancy as consumers pivot to a healthier lifestyle, (2) accelerated digital transformation via intellectual property and technology with e-commerce as growing trade trend towards services sector, (3) widespread adoption of automation and autonomisation via artificial intelligence (AI) and robotics technology amongst others to facilitate transformation of sectors characterised by low labour productivity and labour intensive limitations, (4) heightened importance and considerations of environmental, social and governance (ESG) by corporate organisations signifying direct awareness and involvements as key stakeholders in business ecosystems, (5) value chain disruptions across major business sectors as companies move routine tasks back to their domestic markets, shortening value chains due to the acceleration of de-globalisation impetuses, (6) major shift in governmental taxation, and (7) reformed fiscal policies to buffer future economic shocks with deflation.

In context of MY-SMEs firms and this study in particular, the capacity for resilience in the advent of these stipulated *post-pandemic megatrends* is correlated with the firm's ability to deleverage and prepare for: (i) longer term perspectives on the cyclical nature of meaningful recovery of value capture and value creation for the business, and (ii) longer term structural perspectives on policymaking to intervene the widespread contextual disruptions to future business environment and global economy.

From the case studies example and in contextual relevance to this study's timelines, the severity of COVID-19 impacts on the Tourism sector has impeded business activities of major hotels and budget accommodations businesses and confiscated the firm's ability to bounce back due to chronic financial incapacity to recover the business. As a result, this had caused a major shortfall of sales growth, operating income margin, return on invested capital (ROIC) and net present value of the company. Hence, adopting a 'radical' strategic posture as an immediate response for intervention would facilitate the firm to rapidly shift its business focus via strategic innovations to recover profitability of the business venture. In relations to FO, with the firm's

---

<sup>25</sup> Source: <https://www.ubs.com/global/en/investment-bank/in-focus/covid-19/2020/propelled-thinking-economy.html> [Accessed 30/06/2021]

deliberation on ‘critical reform’, key effort to concentrate on driving performance ‘inertia’ consistent with resources leveling at prevailing OLC phase and lifecycle of the business correlates to the SR horizons defined by the ‘push of the present’ for shifted ‘growth orientations’ in order to regain pricing power & economic resilience (Chesbrough, 2003; Lepak et al, 2007; Gandia & Gardet, 2019; Amankwah-Amoah et al, 2020).

On the contrary, the Oil & Gas sector which has also been a major casualty of MCO and lockdowns during the pandemic, is witnessing gradual increase on sales growth and operating income margins with steadily recovering economies. Nonetheless, firms in this sector continue to face ‘signs of crisis’ led by future of resource limitations due to its capital-intensive industry Capex. On this note, the firm must first address the plausibility of strategic issues implications raised by the specific nature of its business caused by the general sector in order to explicate meaningful repercussions of identified strategic choices for SR of the existing business model. Hence, the firm may adopt an immediate ‘reactionary’ strategic posture with ‘business as usual’ and deleverage existing resource overburden to establish operational resilience. At this juncture, the firm would deliberate ‘conventional reform’ and implement institutional ‘structure’ reorientations to prepare for a transitional phase of establishing ‘continual reform’ via ‘incremental’ strategic posture in approaching the next stage of its OLC phase and business lifecycle. During the ascribed transitional phase of SR, the firm would adopt processual approach on open innovation for FO on firm ‘preparedness’ reorientations via SDM and strategic activity synchronisation. This in turn allows the firm to effectively shift its objectives with deliberated ‘pull of the future’ defined by changing ‘business environment’ in order to exploit cumulative competitive devaluation via value creation into whitespaces (Lepak et al, 2007; Madrid et al, 2013).

Correspondingly, findings from this study validate that owner-manager concentrate on what is familiar and important based on past success/experience and/or decision-biases. Applying the SR Maturity Model for these respective firms help reframe the firm’s internal planning activities in managing business effectiveness. The sequential steps of decision-building elements in the decision-making process systematically generates clearly defined action and feedback which satisfies the temporal boundary conditions for rapid business renewal and recovery.

Furthermore, this study’s supported propositions H1, H2, H3 and H5, reverberated strong arguments attributing institutional FO as the main driving force for strategic thrusts in deriving effective business decisions for business continuity of MY-SMEs in particular. Besides, the

firm's strategic planning impetuses via SDM reconfigurations and ambidextrous dispositions on strategy paradigms with timeline for achievable results intercede owner-managers' postmodern EO with *modern management thinking* via deconstructed and granularised approach on more accurate SOs engagements.

#### 5.2.1.2 Selectivity of Juxtaposition between FO on Business Outlook, Opportunities and Obstacles

Findings from the case studies clusters and researcher's interpretations #1, #2, #3, #4 and #5 (in Table 4.4) validate that deliberative rather than reflexive approach to dealing with 'signs of crisis' help firms to reframe and navigate negative events more productively. Owner-managers with high degree of flexibility and agility to define 'achievable tasks' with definitive 'call to actions' would gain stronger advantage in managing strategic resources effectively.

Moreover, applied UAs in this study corroborate with the efficacy of *selectivity of juxtaposition between FO elements* on the firm's strategic postures on future business outlook, future opportunities and plausible future obstacles which correlates to the firm's SR 'decision profiling' process with pertinent implications of SF rooted SR horizons on (a) business environment, (b) growth orientations, and (c) business continuity on prevailing 'signs of crisis'.

Findings from this study also demonstrate that inconsistent 'internal planning activities' and the lack of organisational knowledge grasp on 'real-world forward projections' led to incoherent 'provisions for change' and strategic choices with regards to firm's conventional adoption of EO and MO as intervening SO for business recoveries, particularly for Case 1 & Case 3. Moreover, owner-managers' EO predispositions were overtly and overly focused on MO constraints (i.e., customer orientation, competitor orientation, and downsizing inter-functional coordination) to avert further damage and risks on the ailing business.

Contrariwise, findings from Case 2 demonstrate that by shifting focus away from conventional business turnaround via sole focus on financial recovery, the firm was able to circumvent constrained strategic options for crisis intervention with greater sense of 'ambidextrous dispositions' to resolve outliers to strategy imperatives caused by 'inexplicability of issues'. Nonetheless, the impact of the key post-pandemic megatrends on MY-SMEs firms' OLC phases and growth cycles is unavoidable, particularly to firms directly impacted by 'sectoral landscape' changes with limited abilities to explore 'unconventional business model'. For example, despite substantial FO approach on organisational 'preparedness', firms categorised under 'services' sectoral landscape demonstrated an overall positive skewed strategic decision

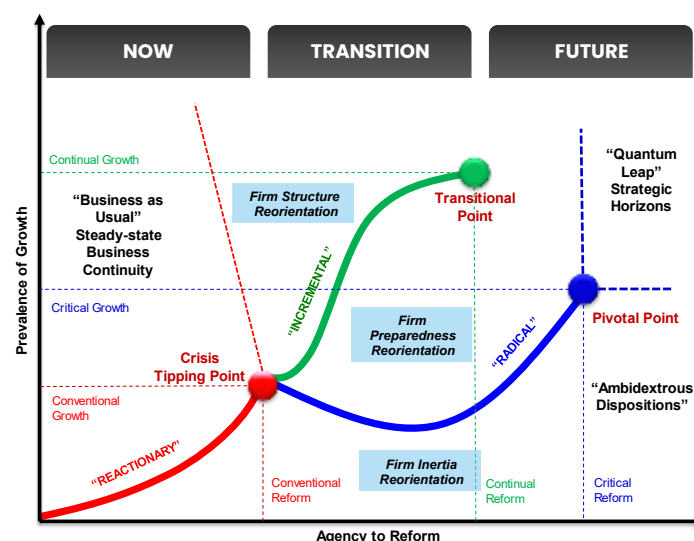
towards ‘agency to reform’ via transformation in relations to its volatile state of risks and opportunities.

This follows, the deliberation of FO amongst each case studies clusters were focused mainly on firm’s ‘inertia’ and to some extent on ‘structure’ which validate the findings that fragmented approach on SO remains prevalent in MY-SMEs which contributed to its continued struggle in dealing with external environmental turbulence associated with the impairments caused by the firm’s (a) uncertainty in the nature of its business, (b) constrained resources and (c) low organisational competencies to deliver critical success.

On this note, this study endorses a more integrated approach on selectivity of juxtapositions between FO via (i) firm structure reorientations, (ii) firm preparedness reorientations, and (iii) firm inertia reorientations, in order for the firm to take advantage of bricolages of strategic choices via ambidextrous dispositions of firm’s strategic problems and strategic opportunities to exploit achievable tasks in specific OLC phases within designated timeline for achievable results on SR.

Figure 5.1 depicts this FO proponents to foster integrated business transformation by achieving selectivity of juxtapositions between firm structure, firm preparedness and firm inertia – with temporal considerations of conventional, critical or continual growth orientations moderated by the firms conventional, continual and critical reform and strategic activity synchronisations.

Figure 5.1: Ternary diagram on selectivity of juxtapositions between FO deliberations for SR



Source: Developed by researcher

In context of the SR Maturity Model adoption, the firm upon reaching the state of ‘crisis tipping point’ would deliberate ‘reactionary’ strategic postures which correspond to establishing sufficient conventional reform strategies associated with FO predominantly focusing on firm ‘structure’ and ‘inertia’. Additionally, the firm adopts conventional growth forecasts influenced by OLCs and industry growth cycles perspectives linked to its established strategic regeneration horizons, whilst the firm continued with ‘business as usual’.

Furthermore, with increasing focus on business continuity, transitioning the limits of temporal horizons on SR initiatives into future trajectories for the firm necessitate increased ‘agency to reform’ via implementing continual and critical reform strategies. During this ‘transitional point’ phase of SR, the firm deliberates ‘incremental’ strategic postures on continual reform strategies thrust with clear FO focus on ‘structure’ and ‘preparedness’. At this stage of its OLC, the firm also endorses ‘radical’ strategic reform FO focus on ‘inertia’, with spill-over implications of accomplishing ‘pivotal point’ of ‘quantum leap’ strategic horizons signifying breakthrough growths for the business and its future.

The study’s primary finding is that FO mediates the impact of strategic postures orientation fit on SR and this relationship is strengthened by the moderating influence of the firm’s institutionalised dynamic capability and SDM processes. In other words, FO acts as a conduit through which the performance outcomes of ‘agency to reform’ is subjected to correlated ‘prevalence of growth’ and complements SO in terms of impact on strategic choices implementations and performance. Correspondingly, factors influencing distinguished SO in this study and corollaries to effective strategy paradigms for SR directly correlate to elemental FO deliberations stipulated in this research. However, the empirical foundations of the discussion of this study’s distinctive FO in extant literatures remains scarce. Notably, most past empirical studies have been extensively focused on contextual ramifications of EO and MO on SO particularly for SME organisations. This gap is important because the adoption of demonstrated FO may be employed fruitfully by SME firms regionally and internationally in multitude of crisis circumstances with deliberations on business sustainability and continuity under different market conditions.

Henceforth, in order for MY-SMEs to become more future-prepared for the next ‘big shift’, the interplay of holistic definition of SO and strategic decision-making must be instigated by the firm’s institutionalised strategic postures orientation (SPO), dynamic capability orientation (DCO) and strategic regeneration orientation (SRO). This also highlight the need for further

study of the relationships between institutionalisation of FO's critical components of structure, preparedness and inertia with firm dynamic capability and performance.

### **5.3 'Holistic' Decision-Making Framework & Managerial Implications**

The various distinguishable themes verified by this study's findings concerning the causal outcomes on the investigated MY-SMEs firms' strategy and decision approach uncovered from deconstructed data were found to be coherent with the study's major variables. This research was seeded with and particularly blossomed from the seminal works of Ansoff (1979, 1987) based on his major and direct contributions of systemic approach with scientifically heuristic concepts on strategic planning, strategic management and strategic foresight (Martinet, 2010) and over his articulation on the dynamic interdependencies of each disciplines. Thus, the focus of this section will be to assume the natural tendencies of expounding critiques based on Ansoff's seminal guidance amongst other literature sources used as references and key influence in developing key constructs for this research (refer Table 3.2).

Further explication of this study's ROs on the contextual significance and influences from past scholarly works on validity of key constructs, generated focused corollary of this study's findings to endorse SDM proponents on SR based on four key aspects of: (1) *Establishing strategic posture on VUCA and crisis interventions*; (2) *Improving the management of strategic decisions and integrated resources*; (3) *Developing proficiency and focus on future strategic orientations*; and (4) *Implementing time-bounded pathways for strategy paradigms*.

#### **5.3.1 Establishing strategic posture on VUCA environments and crisis interventions**

Findings from this study aligns well with Ansoff's postulations that firm's prioritisation of SM activity is concerned with creating a strategic position that assures future business ecosystem and environmental sustainability. Subsequently, the focus of firms and its entire operations management is concerned with exploiting the present strategic position to achieve organisational objectives. (Ansoff & McDonnell, 1990).

At the onset of turbulent crisis, owner-managers' insistence on using past successes could hinder progress and limit strategic actions by the firm. On some instances this even trigger misalignment with the firm's SOs and would impose much higher risk of failure. A classic

example would be how Nokia mobile phone company which was a dominant market player for mobile devices in the 1990s fell when Apple introduced iPhone for the first time in 2007 because of its failure to recognise the need for SI orientations on the enablement of strategic postures at the eventful actualities of its already dominant, uncontested solid and high-quality products.

According to Ansoff (1979,1987) strategic issues arises suddenly and unanticipated, therefore firm's response is often urgent and cannot be handled promptly enough by conventional systems and procedures. Moreover, failure to respond would escalate 'signs of risk' and incur major financial reversal or loss of major growth/maturity opportunity in its lifecycle. On this account, it is vital for firms to establish the 'ripest' position to 'react' via SI orientations of either radical, incremental or reactionary capability to deliver provisions for change.

In response to *ROI: To identify the critical success factors (CSF) that enable sustainable growth and maturity of SMEs in prevalent VUCA environments*, the findings are coherent with firms' entitlement to generate a positive outcome, attain meaningful value creation, and value capture for the business via assimilating explorative and exploitative strategy and planning elements into its SDM over achievable tasks.

Besides, the research concurred:

- Agreement with Caetano & Amaral (2011) that by adapting strategic patterns of 'technology road-mapping' firms can visualise pathways of strategies to be developed, regardless of state of growth, market and lifecycle the business is subjected to. Although, no particular reference was made during the interviews, MY-SMEs firms were aware of the 'road-mapping' advantage in projecting longer term sustainability on managing lifecycle to ensure business continuity.
- Positively reflected upon Ceptureanu (2015) on the presence and needs for capability to manage resources & process of using resources at the onset of external environmental shifts via deliberating multidimensional frontiers to strategy inception and conception. The study agreed with Ceptureanu (2015a) that change management and strategy tools must evolve with lifecycle stages, hence, so too must the strategic posture of firms at the advent of crisis. This entailed that MY-SMEs must exploit the positive outcomes of the turbulent business environment by changing their business processes and/or management practices.

- Representative observations on FO following the argument of Spithoven et al (2013) that SMEs differ from large enterprises in terms of the benefits they derive from open innovations, this study implied that MY-SMEs did not explore advantages of exploring outliers to strategy to generate SI orientations as they are more focused on higher intensities of internal activities managing the lack of resources.
- By virtue of conceptual framework adoption, supported Christensen et al (2005), that strategic postures and strategic regeneration orientation fit must be created in parallel as a separate priority from conventional day-to-day business-planning activities. Moreover, only via processual capability for continuous improvements, firms can make sense of decision pattern recognition and successfully deliver profitability and interlacing transitional growth objectivities in managing disruption after disruption.

### ***5.3.2 Improving the management of strategic decisions and integrated resources***

Ansoff & McDonnell (1990) postulated that if the firm is reluctant to increase its absorptive capacity and institutionalise more structured and organised processual capabilities to a level necessary and establish responsiveness to the external environment and indeterminate change, then it should change its strategic position by evacuating from the highly volatile ‘sectoral landscape’, lest imposing on itself bankruptcy or ‘decimation’ crisis and risks. This entails the SDM configurations backed by organisational integrity to exploit strategic opportunities with employment of its integrated resources for optimal profitability and business continuity.

The aggressiveness of the firm’s strategy must match the intensity of its turbulent external environment (Ansoff, 1987), and in order to ensure stable behaviour under the new strategy or change environment, the firm’s internal capability and resource components must be aligned and be codependent with internalised planning activities, institutionalised competencies and processual capability.

Thus, at the advent of turbulent crisis, MY-SMEs firms’ SM orientations revealed necessitated focus on ambidexterity (Processing), whilst the codependence of SDM (Positioning) with strategic planning (Pathways) remains incoherent. The SR Maturity Model provided contextual ‘bridging’ via the concept of bricolages on Dynamic Capability and Absorptive Capacity for metacognition on explicating *RO2: To determine the level of resourcefulness and change readiness of SMEs in administering efficient strategic decision-making (SDM) frontiers.*

Furthermore, the findings concurred:

- Validating Straková & Talíř (2020); pertaining to alarming notions of risk of failures on the scarcity of awareness of systems and policies with essential strategic documentation of SDM imperatives amongst most SMEs. Nonetheless, not all SMEs are represented by this view because MY-SMEs, to some extents were found to be ‘unconsciously competent’ despite the lack of enforcement on formalised structure and documented processes of SDM. Moreover, with potential detrimental impact over prevailing economic turbulence and crisis, it would be imperative for firms to institutionalise competencies and absorptive capacity crucial for cohesion with the external environment to explore organisational capability to deliver and manage SDM directly impacted by factors of change.
- Conferring further research suggestions with Elbanna et al (2020a) postulations regarding the positive correlations between the intensity of strategic planning on firm’s general performance. This is because at the onset of VUCA environment and crisis, the strategy content would be different as compared to general competition crisis despite the fact that SM practices are the key driver for organisational transformation.
- Usefulness of Kunc (2019) guided structures and systems thinking approach on strategy analytics for organisational transformation which explains the implications of evolution of organisations via incremental changes. Observed in Company B and Company I, with the firm’s SDM stance of radical nature of change orientations, realignment of in terms of management of integrated resources were evident. However, as for Case 3, when the nature of environmental changes is far too intense and extensive, in order to increase the economic value and advantage in the organisation, the firm must undergo total revolution or innovation involving organisational structure, processes and operational control, lest it faces the risk of ‘decimation’.
- Full agreement and alignment with Collis & Anand (2019); regarding the value proponents of dynamic capability on improving the processes for processual capability in MY-SMEs. At the onset of turbulent environment and crisis, structural dynamic capability must be built alongside the firm’s absorptive capacity to inseminate and disseminate ambidextrous dispositions in context of exploring and exploiting strategic issues, problems and opportunities. Despite challenges due to accounted evidence from literature of limited resources and access to funds in MY-SMEs, the inherent constraints of effectiveness in solving crisis with dynamic capability alone was also found to be demanding. Thus, the rationale of framing ‘holistic’ approach to management of strategic decisions and integrated resources are not far fetch.

- Exploring further implications with future research suggestions with Jarzabkowski & Kaplan (2015) on how the SR Maturity Model in context of managing strategic decisions and integrated resources can further enable MY-SMEs to overcome major hurdles and constraints over its current firm and strategy orientations. In context of this study's findings, the implications of strategy-making tools and frameworks, particularly on the SR maturity model's recursive flow of logics was perceived to provide integrated understanding for the key 'actor' or user to foster variety of positive outcomes in resolving organisational issues. This would be especially appropriate to determine the interdependencies of dynamic capability and absorptive capacity with FO for MY-SMEs under prevailing 'signs of crisis'. This also follows that in essence of developing best-practices approach in dealing with decision-making and strategy paradigms it would be critical that the SR maturity model generate 'meaningful' dialogues in validating the strategy implications on immediate and transitional value capture to provide absolute answers to MY-SMEs owner-managers' reservations.

### ***5.3.3 Developing proficiency and focus on future strategic orientations***

According to Ansoff (1979, 1987), the detection of weak signals (i.e., disruptive change) and estimating the impact with preparation of alternative actions as intervention strategy is vital as the firm's dynamic response on eventful actualities of exploring and exploiting vulnerable opportunities. This follows, from Ansoff & McDonnell (1990), at the time of strategy formulation, feasible decision options must progress to various stages of uncovering strategic choices. It is by virtue of this categorical definitions, the research's perspectives on SF standpoints were raised to enumerate and project future possibilities of strategic regeneration horizons corollaries to enhance the firm's focus on future 'sectoral landscape' implications.

The aggregated case study clusters contributed to classes of plausible future alternatives on strategy paradigms for MY-SMEs to uncover and to some extent, deconstruct SDM imperatives for strategy formulation and implementations. In turn, this expounds to great lengths, the future-oriented real-time integrative management capability and proficiency in MY-SMEs firms. Moreover, in assertion to *RO3: To identify factors that influence SME's ability and preparedness to respond to growth uncertainties and market volatilities*, the primary responsiveness or 'agency to reform' responses as suggested by Ansoff are the pinnacles of MY-SMEs' explorative provisions for change and exploitative continuous improvements

towards accomplishing real-world forward projections for business environment, growth and continuity.

The four types of responsiveness in context of the findings serves as distinct focus of the firm's future SOs are: (1) operational responsiveness – reduce the impact on costs, (2) market responsiveness – to optimise profitability, (3) 'SI orientations' responsiveness – optimising business focus and objectives, and (4) 'Prevalence of growth frontiers' responsiveness – to develop 'quantum leap' impetus for long-term profitability and growth.

Conversely, this study affirmed:

- Assumptions of Ansoff (1979, 1987) and Slaughter (1997) on practical assimilation, conception and visualisation of future-preparedness via scanning for weak signals at the periphery of the business environment with 'envisioned SF frontiers' as catalysts to guide and generate 'meaningful' discourse with key stakeholders on plausible future strategic actions. In turn, at the onset of prevailing market volatilities, MY-SMEs could explore internal planning initiatives and improve the organisational aptitude towards managing disparities and outliers to strategy-making routines.
- Adoption of Hortovanyi et al (2021) perspectives; despite the fact that findings implied MY-SMEs typically adheres to myopic conception of preparing for the future, the postulated longitudinal case study adoption and contextual implications of data and information driven metacognition and 'automisation' of ambidextrous processes within the organisation to generate a more dynamic FO and exploit organisational integrity was remarkably prominent and relevant to this study. Automisation in the case of MY-SMEs would entail exploring capability to deliver provisions for change and achievable tasks within the time limits of execution, focusing on building absorptive capacity to analyse and perform, improve and identify crisis interventions. This is also important as the underpinning theory of CT and RBV on 6C integrated resources compels MY-SMEs firms to adapt to environmental uncertainty covering 'mutually-exclusive' separate eventful actualities in exploring negative impact of crisis and 'collectively-exhaustive' ideation of exploiting positive outcomes to strategy paradigms as also implicitly implied by Meyer et al (2020).
- Structural institutionalisation and assimilation of Shah et al (2019) postulations that organisational survival depends on the firm's capability to successfully perform timely strategic renewal with utilisation of shared knowledge and resources. This may imply that via showcasing case study outcomes within and across MY-SMEs vast community

and populations, firms could foster better dynamic learning and absorptive capacity via KM processes to rearrange organisational strategies, inertia and structures. In turn, this could be a valuable proposition for the researcher to advocate ‘lessons learned’ from the case studies via SMECorp’s SME community platform on FO proponents for Strategic Regeneration of MY-SMEs post this study. This notion was also supported by the researcher’s agreement with Sarpong & Meissner (2018) which stipulated synthesis from past scholars and in context of this study, indirect effect of SF on innovativeness through organisational learning is dictated by institutionalised antecedents such as ‘SI orientations’, ‘FO’ and ‘SDM configurations’ that enable (or impede) policymaking and value capture.

- The valuable proponent to managerial adoption of benchmark best-practices on maturity model emulating Rohrbeck et al (2015) approach on linking SF to strategy. Despite the dissimilarity between SMEs and larger corporate organisations, particularly with multitude of issues faced in context of challenges and limitations, benchmarking with best-practices could help firms foster better responsiveness on future-preparedness. This follows that owner-managers can enhance the firm’s absorptive capacity and learn from comparable firms within its ‘sectoral landscape’ and structure a more robust and efficient internalised SM foundations according to the level of capability and stage of its lifecycle. However, this would also entail time and capital investment allocations in which will entirely depend on the resilience and stage of crisis MY-SMEs are currently dealing with. Nonetheless, such a proponent must be based upon future development and additional empirical research would be required to necessitate SR maturity model benchmark best-practices. On this note, the researcher is of the opinion that other relevant continuous improvement tools and methodologies would perfectly complement and accommodate the SR maturity model benchmark best-practices to reinforce MY-SMEs firm’s strategic initiatives on building crisis resilience and future-preparedness. An exemplary methodology with such an instant fit would be ‘Strategic Kaizen’<sup>26</sup> which focuses on lean processes flow, synchronisation and levelling of organisational operational processes, strategy, and culture.

---

<sup>26</sup> Source: <https://www.kaizen.com/news/strategic-kaizen--the-third-book-by-masaaki-imai.html> [Accessed 20/07/2021]

- The strategic benefit on immediate internalisation and operationalisation of future-preparedness within MY-SMEs organisational decision-making process by adopting OLC and growth cycles linkages to strategy and integrated resources management considerations. This follows, according to Inayatullah (2008), future-preparedness can help firms recover agency and particularly in the context of Case 3 findings, by anticipating future issues and their consequences, this would help create alternative future and positive outcomes. An exemplary simple and low-cost methodology best suited for MY-SMEs to effectively adopt would be by Curry & Hodgson (2008) “Three Horizons”<sup>27</sup> which would allow owner-managers engage internal discourse with key stakeholders to simultaneously: (i) explore business continuity and discontinuity via forward projections, (ii) exploit ambidextrous dispositions on SDM configurations with strategic planning impetus, and (iii) generate provisions for change under multiple eventful actualities considerations within the constraints of the firm’s interlacing objectivities in reducing the plausibility of crisis occurrence. Based on a design thinking and sensemaking approach, the researcher is of the opinion via the visualisation of SDM with this strategic tool, owner-managers would be able to develop a more incremental SI orientation to transform the organisational capability to sense, seize and sustain explorative and exploitative strategic postures.

#### ***5.3.4 Implementing time-bounded pathways for strategy paradigms***

MY-SMEs revealed multiple levels of intricacies in establishing high efficacy SOs and susceptibility to VUCA environment and crisis. From review of literature, the many limitations due to size and availability of resources impose great stress and severity in managing strategy and strategic decisions at the onset of growth uncertainties and market volatilities.

Nevertheless, development of sound strategies and strategic choices to reduce crisis impact remains prevalent at the advent of initiating strategic recovery or renewal of the business. However, comprehensive organisational wide-planning is highly costly and excessively time-consuming for MY-SMEs firms’ adoption. It also creates a lag in time limits on execution of response to intervene fast-maturing eventful actualities of crisis. In turn, this could potentially

---

<sup>27</sup> Source: <https://www.h3uni.org/project/learn2-three-horizons/> [Accessed 20/07/2021]

negate the implications of conventional comprehensive strategic planning escalated by lack of information at hand to formulate immediate plans, and the firm immediately plunging into ‘reactionary’ actions to jump-start ‘inertia’ without real-world forward projections of organisational integrity on the outcomes (Ansoff & McDonnell, 1990). Besides, such urgency is extremely high when the timeline for achievable results in highly intense crisis demanded by owner-managers are practically instantaneous!

MY-SMEs firms must take a stance and make the choice to prevent future occurrences of ad-hoc management of its ‘agency to reform’. By evolving the organisational aptitude and behaviours with provisions for change, strategic learning by adapting absorptive capacity and building dynamic capability into the firm to enhance metacognitive abilities with the SR maturity model and best practices, for instance, would greatly improve its strategic posture management.

Concurring with the research proponents on *RO4: To determine the present decision-making practices and model used by SMEs and introduce a novel and structured intervention scheme for SDM* – findings and answers to RQ4 revealed that elements of continuous improvements proved to be vital for MY-SMEs and is highly indispensable concerning the state of predicament each investigated firms were subjected to. Conversely, to ensure long-term sustainability at the advent of the firm’s short-term struggle for survival as revealed in Case 1 and Case 3, the findings arguably:

- Expostulated Lepak et al (2007) delineation on the level of market competition and antecedents to value propositions dictating value creation and value capture process. Reason being is the prevailing external environmental turbulence and global crisis is unprecedented to the entire MY-SMEs community and population. The researcher is of the opinion that under the firm’s strategic objective to sustain their businesses, the ‘prevalence of growth frontiers’ would entirely rely on the organisational capability to deliver policymaking and value capture simultaneously with open innovation. Findings also confer that firm’s profitability at the onset of current market volatilities relied heavily on the firm’s eventful actualities in managing its resources.
- Corroborated with Amankwah-Amoah et al (2020) postulations that resource abundance would allow firms to cushion the ‘signs of crisis’ more resiliently. However, the ‘sectoral landscape’ proved to be the influencing barrier to effectively reform with agency particularly in the case of manufacturing firms with intensive Capex and Opex utilisation. Despite unvalidated management level competencies, the misalignment of

strategic decisions with SOs could be the source of detrimental failures. The researcher is of the opinion that the main reason behind firms exiting the business at the advent of ‘decimation’ crisis were due to the lack of absorptive capacity and dynamic capability to retain organisational integrity via strategic postures and SDM on provision for change. In fact, based on anecdotal evidence outside of this research design, most of these inoperative firms were often unnoticed.

- Corroborated with Delmar et al (2003) via clear findings on the sectoral landscape, YoY revenue and stages of lifecycle, the growth patterns dissimilarities amongst the ten investigate MY-SMEs were evident. The implications of heterogeneity on growth orientations, were determined by the business environment and strategic postures on accomplishing business continuity. In context of this study, the order of growth was assumed to rely on the implications of agency to reform and dynamic capability of firms at the onset of ‘signs of crisis’.
- Affirmed Pearse (2017) postulations in which patterns of SDM and MY-SMEs firm orientations were overtly insistent on exploiting time limits on execution to explore capability to deliver positive outcomes under prevalent ‘signs of crisis’. Assimilation of systems thinking approach to SDM, and strategy paradigms would allow recognition of interdependencies of key constructs in the SR maturity model which would guide owner-managers to re-organise the firm’s ambidextrous disposition and strategic planning impetus to further reduce the crisis impact. This follows that for longer-term sustainability of the business, explorative remodeling of the business and exploitative reform with a new business would necessitate flexibility in managing economic resilience (Bao et al., 2011) and interlacing firm objectivities with internalised processual capability and SDM configurations.
- Affirmed Guiette & Vandenbempt (2020) postulations in context of MY-SMEs that the dialectic processual activities on provisions of change in organisations must be derived from three aspects of sensemaking which entail: (i) absorbed sensemaking – which implied raising structural awareness, (ii) detached sensemaking – internalising levels of preparedness, and (iii) mindful sensemaking – delivering institutionalised competencies and organisational inertia. From empirical evidence, the prioritised strategic recovery activities to develop ‘inertia’ revealed a state of ‘unconscious-incompetence’ in MY-SMEs firms’ absorptive capacity, which was highly likely influenced by the many impediments and limitations faced by SMEs as compiled in the study’s literature review.

## 5.4 Implications of the Research

This pioneering study on SR for SME firms is significant and arguably well-timed in fostering the importance of SDM holistic analytics with MY-SMEs' owner-managers in being able to reason amidst highly turbulent business environments and crises situations with overwhelming amount of information to reach best judgements, establish adequate confidence and respond decisively. The case studies findings of selected SME businesses are distinctive and represent myriads of constraints and challenges within the MY-SMEs 'sectoral landscape' and delineated categorisation on organisational size and maturity.

Notably, MY-SMEs demonstrated competency in managing the business outlook, opportunities and threats with stronger kinships to EO. Nonetheless, when it comes to assayed decision rationalisations and choosing hypotheses for strategic options generation, the literature review offers sufficient materials for this study to advocate 'reorientation' of conventional approach on SOs and strategic decision-making frontiers. Despite the lack of foresight on the occurrence (and recurrence) of 'signs of crisis', the extant literature provided valuable proponents to FO reorientations at the advent of crises faced by MY-SMEs via this study's outlined major pillars of SM, SI and SF rooted institutional Dynamic Capability.

Whilst the seminal contributions of Ansoff's paradigm (Ansoff et al., 1976; Ansoff, 1987; Ansoff & McDonnell, 1990) focuses on counterbalancing strategic postures with penetration, development and diversification of (i) markets and (ii) products, emerging issues synthesised from this study's findings corroborate with Ansoff's strategic diagnosis for optimal strategy paradigms via SF rooted deliberations of SR horizons. Besides, the study's derived SR Maturity Model (Figure 4.15) constitutes a systematic guideline for MY-SMEs' key stakeholders in unpacking the process of strategic decision-making and strategy-making via 'meaningful' discourses.

Moreover, the ostensibly slow and protracted MY-SMEs' response to growth uncertainties and market volatilities is counterpoised by the robustness of the study's SR Maturity Model via enhanced (a) *situational awareness* – by increasing firm's absorptive capacity to reduce organisational knowledge gaps and evoke a dynamic state of FO reorientations in the face of new 'strata of crises', (b) *goal rationalisations* – steering the organisational motivation and objectivities/focus of people/structure and activity synchronisations on longer-term and continuous value management, (c) *eventful assessments* – responding to strategy outliers with

circumnavigating tactical implementations of strategic actions in managing integrated resources, and (d) *strategic perceptiveness* – generating performance-driven policymaking and value creation propositions on organisational transformation and sensibly prepare for highly VUCA futures. The following section shall further elaborate on the significant contributions of the study.

#### **5.4.1 Theoretical Contributions of the Study**

From the literature review, this study has pointed out major shortcomings in the clear distinction and contextual awareness of SO with the importance of FO particularly for SMEs in managing market volatilities and future uncertainties. Major findings from this study substantiate FO as the basis to influence critical components of SO which has not been mentioned in the literature, despite playing an important role in the management of business continuity and sustainability at the onset of economic turbulence and downturns. In response to bridge the highlighted theory limitations, the following main contributions were accomplished:

##### **Contribution #1: *Extension of knowledge on SO with the implications of SR and decision-making dynamics specific to SME organisations.***

With the study's evolving hypothesis that current definitions of SO (focusing on LO, EO & MO) is too narrow for SME firms facing major 'signs of crisis', this study was able to identify a more fitting criterion for SO deliberations. Newly ascribed and demonstrated elements of FO, SPO, DCO and SRO facilitate generation of adjacent knowledge on strategy management based on real-world account on how SMEs need to foster growth and maturity with a more 'robust' and 'precise' SO under the influence of future uncertainties and economic volatilities. By combining these key elements, it was possible to build the comprehensive SR Maturity Model and operationalise the foundational holistic decision-making framework for strategic renewal of organisational resilience and integrity. Benefits to SME firms include higher efficacies in organisational ability and policymaking imperatives.

##### **Contribution #2: *Extending the understanding of SO and the proponents to value management by identifying six new capability and contextual elements for growth and maturity specific to SME organisations.***

Following the study's underpinning logics on CT, RBV and dynamic capability, the SO help formulates normative guidance on designing SR strategy paradigms. Six major contingency factors were identified: (i) prevalence of growth frontiers, (ii) agency to reform, (iii) absorptive capacity, (iv) structure, (v) preparedness and (vi) inertia. These factors facilitate knowledge assertions and assimilation into organisational processes in overcoming tangible barriers to accomplish strategic options on growth and maturity. On the basis of the case studies analyses, contingency factors (i), (ii) and (iii) suggested contextual emphasis on the SDM of SPO and SRO strategy paradigms. Conversely, contingency factors (iv), (v) and (vi) recommended explicit and deliberated capability focus of FO and organisational KM capability on external environmental information with timely applications. These valuable proponents help firms establish strategic issues optimisation which corresponds to increased efficacies in value management of its integrated strategic resources.

**Contribution #3: *Proponent of four research propositions that link value creation and value capture with SR to FO.***

The effort to increase firm's contextual application of continuous improvements in managing growth and maturity is dependent on differentiated strategies for value creation and value capture, operationalised via coherent strategic planning and strategy executions (Williams et al., 1999; Yue & Hanxiong, 2011). From the cross-case analyses, research propositions H1, H2, H3 & H5 were attested to demonstrate (a) how SR can be integral to firm's short, medium and long-term strategic planning and transformation imperatives and (b) what roles SR can contribute to enriching the distinction of SO for SMEs growth and maturity development in particular. In fact, this may be accomplished by proponents of the conceived SR Maturity Model on increasing organisational proficiencies via institutionalisation of strategic planning foundations based on (a) SRO influenced processual capabilities to 'scan' future horizons, and (b) SPO driven organisational and absorptive capacity to manage change. Firms may benefit with SR on normative recommendations for business advantage via accomplishing higher efficacies of strategy implementations and operationalisation of change management.

**Contribution #4: *Development of normative recommendations for building SR systemic approach on the basis of SME firm's evaluation of contingency factors.***

The strong linkage of SR to firm's contingency planning is via its role in facilitating FO for the generation of coherent frameworks for practical strategy-making and rapid decision-making impetuses on generating business continuity and sustainability. Case study analyses validated

seven research propositions (Table 2.7) that demonstrate successful SO for managing crises and economic uncertainties may be achieved via implementations of the SR Maturity Model at specific OLC and growth cycle phases of the firm. Besides, SME firms may gain strategic advantage over strategic planning contingencies via ‘systems thinking’ approach to strategy-making and decision-making with modularised strategic frameworks and best-practices approach.

**Contribution #5: *Extension of the theoretical basis of future research integrating findings from strategic management studies and research on SMEs & SO developments particularly from Asian literatures.***

This study revealed that research on the body of knowledge for SR particularly for SMEs is still at its nascent stages of development. Despite being complemented with the basis of management theories from extant literatures and relevant mature research areas, the attribute and cultural dispositions of MY-SMEs are distinctive when compared to other SMEs in developing countries and globally. With emphasis on three major standpoints of management theories SM, SF and SI, this study was also able to demonstrate the relevance and applicability of unified perspectives of CT, RBV and dynamic capability theories. The researcher is of the opinion that future studies would greatly benefit by adopting similar approach to generate contextually relevant and significant results that are more generalisable across each conceptualisation of useful theories.

#### ***5.4.2 Contributions to Managerial Practice***

This study was able to identify various practices in MY-SMEs firms which unveiled that owner-managers were more prone to focus on SO capability dimensions EO and MO. However, none of the firms had implemented a comprehensive and effective SDM with contingency factor assessments on FO and strategic choices deliberations for business recovery. Most firms were skilled at either EO or MO independent dimensions for SO deliberations despite having mature practices over other firms. Moreover, case study analyses demonstrated that the deficit on overall proficiency and implementation level of FO, SPO, DCO and SRO to support SO on rapid and sustainable business recovery raises significant concerns regarding MY-SMEs firms’ awareness on future-preparedness to retain business continuity under prevailing crises and future economic uncertainties.

This also follows that with scarcity of strategy and management guides with particular focus on Asian literature and published contents aimed at MY-SMEs for knowledge and practical deployment, most recent books such as “SME challenges and solutions: a practical guide for SMEs to elevate their businesses to the next level.” (Hu, 2017) and “Asian competitors: Marketing for competitiveness in the age of digital consumers” (Kartajaya, Kotler & Huan, 2019) amongst others, to some extent provided useful discretionary advice and narratives on managing issues and challenges in today’s dynamic and uncertain environment for owner-managers. However, despite their documented SO and strategy recommendations having received commendable reviews and accreditations from strategy experts and corporate practitioners, the level of knowledge retrieval and adoption amongst the majority of owner-managers of MY-SMEs firms especially remain low.

This implied that firms’ LO and organisational absorptive capacity are subjugated by owner-managers’ reservations and implicit bias on the explicit adoption of quality-decisions via institutionalised structural processes (Bellamy et al., 2019; Phillips-Wren & Adya, 2020). Conversely, this observation corresponded with this study’s substantiation on the criticality of FO’s capability focused contingency factors - structure, preparedness and inertia, to be employed in tandem with SO contextual focused contingency factors - prevalence of growth frontiers, agency to reform and absorptive capacity, in order to ensure alignment of SPO and SRO strategy paradigms via DCO robust mediations.

Often, owner-managers of some MY-SMEs firms which are predominantly family-owned with culturally predisposed motivations through "closed-minded" organisational aptitude and attitude (Van Someren, 2014) tend to look-up to famed local business influencers and thought leaders for ideation on how to initiate betterment of fragmented approach on MO or EO for the business, rather than embracing the tedious process of consultative brainstorming engagements on strategic planning with higher accuracy of generating effective SOs.

For instance, these firms would source 'strategy' guidance from paid engagements with social media marketing & branding specific seminars organised by amongst others, "Popconfest"<sup>28</sup> with a tagline "Southeast Asia's FIRST Business Influencer School". Despite social media such as LinkedIn and Facebook amongst others are useful and important for many types of

---

<sup>28</sup> Source: <https://popconfest.com/academy/> [Accessed 20/06/2021]

businesses, the 'eccentric' approach on MO may not entirely be the solution for sales recovery and growth. Even SMECorp's organised seminars/workshops with proponents on digitalisation of SME businesses, backed by government incentives to promote e-commerce via digitalisation platforms, not all platforms were found to be effective for every type of businesses. It varies from case to case and not a single solution fit for the entire SME community.

Despite both examples being important milestones for future directions of sustainability for growth, not all firms which have adopted and invested in digitalisation and 'eccentric' MOs have been fully able to accomplish success. There has been some that observed further shortfall in revenue and has completely reverted to conventional modus of operandi for their business which rely on physical review of their goods by niche consumer groups – for e.g., an antique and vintage rare vinyl record and first issues music CD store happens to be one of them. Additionally and based on anecdotal evidence unaccounted in this study, this was also especially true for various types businesses categorised as micro-SMEs firms.

Whilst governmental campaigns to provide financial incentives and equip SME firms with digitalisation frontiers may look like the way-forward solutions-fit on post-pandemic world business recovery, it misses out the vital component of assimilated FO imperatives for firms to increase the organisational capability to adopt SPO, DCO and SRO for continuous improvements and future-preparedness. Although this decision-making approach by owner-managers is not wrong, it may not provide the required efficacies to establish the correct SO for SR of firms in especially high crises and economic turbulence environments.

In context of MY-SMEs, the domain of SR and especially SO adoption at the advent of novel crisis and uncertain futures remains unexplored or regarded as 'terra incognita' owner-managers have to cope with and adapt. Therefore, in order to improve this situation and foster meaningful adoption of the SR Maturity Model, this research contributes to managerial practice in several 'novel' ways:

**Contribution #6: *Providing a maturity model for benchmarking and strategic planning improvements via high-impact & high-efficacy SO deliberations and practices.***

The cross-case studies analyses demonstrated that the FO were effectively necessitated via structural SPO, DCO and SRO foundations which in itself promoted higher efficacies of SO frontiers for the SR of firms. With the institutionalisation of higher efficacy SDM processes, firms strategic planning impetuses on its 6C strategic resources would allow owner-managers

to benchmark SR corollaries from comparable firms and design a more accurate SO based on the firm's active OLC according to the firm's deliberated six contingency factors. Additionally, this imperative may foster strategic planning improvements on wider perspectives which include:

- a) benchmark best-practices with targeted implications of establishing SPO via demonstrated applications of explorative and exploitative deliberations of strategic choices via: (1) effective visualisation of strategy road-mapping via selectivity of FO juxtapositions, (2) deliberated value management streams at the onset of business lifecycle, and (3) daily incremental change provisions with 'SI orientations'.
- b) restructuring the organisational processual capability via: (4) proactive strategic assessment of DCO at specific phases of the firm's OLC and growth cycle.

In turn, firms may gain the strategic advantage on SO responsiveness to environmental and economic turbulence, including improved competencies in developing and managing crisis interventions.

**Contribution #7: *Providing a ternary FO selectivity systems to support the contingency factors and deliberations of SOs at the onset of OLC and growth cycles uncertainties.***

In order to ensure long-term sustainability of the firm with plausible SRO based strategic planning outcomes, this study has demonstrated that the major obstacle MY-SMEs firms faces is not the accurate identification or interpretations of 'strata of crises' (or signs of crisis and indeterminate change) but the firm's SO and ability to proactively respond and adapt with FO and SPO. The study's answers to RQs also demonstrated that the key to managing economic turbulence and uncertainties lies within the firm's structural DCO to rely more on emergent contingency factors with FO and overcome the owner-managers' basic assumptions and bias of the 'known' future state.

This may be achieved by MY-SMEs through institutionalised development of proficiency and focus on FO selectivity systems for effective implementations of SOs. The FO selectivity systems – i.e., firms structure, preparedness and inertia temporal bounded reorientations endorse a more practical approach for owner-managers to deliberate SRs based on emerging strategies rather than conventional long-term planning via traditional and poorly defined EOs and MOs. The FO selectivity systems provide practical advantages on organisational processual improvements which include: (5) directly linking SRO to organisational strategy and strategic management for OLC evolution and self-regulation, (6) combining best-

performances of EO and MO to identify and manage the firm's strategic resources, and (7) establishment of methodological approach on contextual 'mise en place' contingency factors – 'prevalence of growth frontiers' and 'agency to reform' in context of operationalisation of SR strategy.

**Contribution #8: *SR systems help foster SDM and strategy paradigms for longer-term survival of firms via contingency logics.***

The study's conceived six major contingency factors - (i) prevalence of growth frontiers, (ii) agency to reform, (iii) absorptive capacity, (iv) structure, (v) preparedness and (vi) inertia, were demonstrated to foster the adoption of 'meaningful' discourse and 'useful' time-bounded pathways for strategy paradigms development and SDM in SME institutions. In particular, the SR Maturity Model contributes to the enhancements of management practices and the entrepreneurial-dispositions of owner-managers to build a more resilient organisation and operations per se. Moreover, the SR system forges a more solid and robust definition of SO and strategy-as-practice in managing uncertainties for longer-term sustainability of the firm and its business.

#### 5.4.2.1 What does this mean to external stakeholders and policymakers?

This study provides better understanding of design-thinking and systems-based approach on managing uncertainties and economic turbulence for policy makers, business support organisations and MY-SMEs' owner-managers altogether. In particular, this study promotes a distinctive strategic approach to SME holistic strategy design and development for various stages of their business lifecycle and growth cycles.

The key policy implications of the study's major findings on FO and SRO support gaining and retaining competitive advantage of MY-SMEs firms venturing on the internationalisation of their local businesses into high growth industries in order to facilitate their expansion into global markets. Through SMECorp's "SMEs Go Global Programme"<sup>29</sup> the financial assistance provided by the Malaysian government targeting export-ready companies is also complemented by business-to-business (B2B) services on - market linkage, office spaces overseas, product prototype manufacturing, quality and standards certification and

---

<sup>29</sup> Source: <https://www.smecorp.gov.my/index.php/en/programmes1/2015-12-21-10-06-32/smes-go-global-programme> [Accessed 30/07/2021]

participation in e-marketplace, amongst others. Despite these articulated SMECorp's context-specific advisory support and services being purely 'administrative', the deficit on assimilating evidence-based practical approaches on contingency factors strategic planning of 6C integrated resources would render the sustainability of internationalisation of MY-SMEs business to be widely exposed to high risks of future uncertainties.

Moreover, the context of MY-SMEs going 'global' imply that firms must be able to ensure business continuity in significantly unfamiliar and uncontested spaces. Thus to continue deliberating fragmented approaches on EO and MO and encourage mass participation in such programmes is highly risky. Therefore, this study demonstrates that via accomplishments of business-context contingency factors 'prevalence of growth frontiers', 'agency to reform' and absorptive capacity, SMECorp's being the *key external stakeholder* and its roles as the main *policymaker* must encompass the additional provision of pedagogical skills and competencies facility and training to fully equip MY-SMEs firms. This may be done via disbursing grants to firms or business support organisations in conjunction with conducting executive learning and entrepreneurship business coaching workshops for owner-managers to propagate betterment of LO for MY-SMEs and equip firms with managerial-practice competencies, particularly in areas specified in the study's Contributions #6 (1,2,3 &4).

Furthermore, in regard to firms' OLCs and industry growth cycles, the successful corollary to internationalisation of MY-SMEs businesses is highly dependent on the time-boundedness of implemented SOs, which imply SMECorp's continuous efforts to perform corporate level and entrepreneurial audits would be vital to necessitate feedback loop on 'lessons-learned' and the success of the programme and MY-SMEs internationalisation. This would in turn generate continuous improvements into the programme and instigate betterment of firms' growth and maturity in the long run, including the productive involvement and engagements of key external stakeholders across MY-SMEs firms' entire business ecosystem.

Conversely, business support organisations may leverage on the pedagogical proponents to provide context-specific and tailored support to help MY-SMEs firms evolve by shifting away from wide-spread conventional advisory services focusing primarily on financial/accounting and digitalisation technological adoptions. This study demonstrates that the perennial issues and major challenges faced by MY-SMEs (Wang, 2003; Stuti, 2005; Wang et al., 2007) requires far more necessitated improvements to organisational LO and absorptive capacity. Thence, it would be highly productive for business support organisations to invest in higher-valued SR specific knowledge-based foundations as this study's Contributions #7 (5,6 &7) suggested.

Additionally, business support organisations could potentially oversee commercialisation of specially developed SME programmes with consolidation of integrated human, intellectual and financial capitals resources along the value-chain via shared technological/services and outsourcing capabilities within and across the SME ecosystem. This would potentially necessitate software, information technology (IT) and artificial intelligence (AI) investment and innovative developments pertaining to generating intellectual property (IP) solutions towards improving the efficacies of MY-SMEs' sectoral landscape, businesses and business management.

Nonetheless, in context of business support organisations specific to the interest of lenders and investors, it would be vital that the firm's strategic choices and strategy implementations to be subjected to critical examination or analysis. Hence, with more accurately designed SO and tangible implementations of FO and SPO, firm's adoption of SR systems to foster SDM and strategy paradigms for longer-term survival via contingency logics (Contributions #8) would help lenders and investors gain understanding and confidence in the business precisely well in advance.

On the perspectives of business management academia, this study presented evidence of how MY-SMEs could continually foster growth and maturity in the face of VUCA crises and economic turbulence via convergence of strategy-practitioner and academic rigour. This follows that methodological inquiries on strategy from the study are in coherence with the firm's commitment on business actions needed. In particular, the shifting and expanded proponents to SO reinforces entrepreneurship theories via strategy-as-practice to adopt the CT, RBV and dynamic capability integrated perspectives to justify strategy imperatives for FO on business evolutions. Given that the strategic tasks of academics are to trigger more specific evidence-based future research and reaffirm the theorised concepts in this study, the role of academia as source of referrals on policymaking, could persuade key stakeholders within SMEs community to review the fidelity of business models across the sectoral landscape of MY-SMEs especially in dealing with internationalisation efforts.

Furthermore, with regards to necessitating strategic change of human capital pool in support of developing higher entrepreneurship skillsets and talents for the country, the heuristic philosophy of this study's approach on SDM and strategy paradigms allows academic institutions to provide assistance to the government to alleviate entrepreneurship development and graduate unemployment crisis by luring graduates to consider entrepreneurship as a career option and directly contributing to the national SME development agenda. This correlates to the

case studies findings generating avenues for case teachings and explanations of ‘how things work’ in the ‘eventful actualities’ of ‘real-world forward projections’ of strategy practice which complements entrepreneurship pedagogy. In turn, this would build a solid foundation to enhance SMEs management, entrepreneurship and innovation capabilities via uniquely developed transformational programmes, thus reinforcing business communities networking (local and foreign), knowledge acquisitions and to generate business opportunities via leveraging on supply chain innovation and optimisation.

#### ***5.4.3 Limitations of the Study***

Limitations arise from the study being highly concentrated on select SME participants located in central region and urban setting within Klang Valley and the capital city of Kuala Lumpur but not limited to SMEs in the entire state of Selangor. The context with which SMEs from peripheral regions managing radical changes to capitalise on growth opportunities with SR may also be limited by the study results. Additionally, the focus on a single case for each industry focus area might include a limitation of results to an occurrence only generalisable to the researcher (Stake, 1995). Furthermore, these limitations could also potentially render partialities on the general application of research findings for myriad of SMEs in other central national locations, including the greater ASEAN region which may also affect the reliability or validity of the derived conclusions of the study (Ellis & Levy, 2010).

The explicit inquiry into decision management leading to operationalisation of strategy were targeted at three (3) distinct management levels namely, senior, middle and line managers. Notwithstanding being limited to individual experiences and feedback, the study was also limited to a top-down perspective under the influence of upper management policies within the organisation. Moreover, the adopted qualitative research methodology by means of case studies generated tremendous volume of rich data and heavy descriptions. As with the majority studies, persisted limitations included accuracy, clarity, and bias by the data source (Yin, 2015). Correspondingly, by not considering extensive or alternative data (or sample) sources may impose additional limitations on research findings. In fact, such findings must be interpreted with caution, rendering an unavoidable time-consuming exercise.

#### 5.4.3.1 Consequence to the Research

The contributions of this research were intended to bridge the gap between theory and practice of SM and SDM specific to MY-SMEs and SMEs institutions in general. Moreover, the consequence of limitations influenced the researcher's insights on future improvements and accomplishments. However, the researcher is of the opinion that this could be realised via a more comprehensive research projects in the future.

Based on the researcher's initial assumptions in Chapter 1, the prevailing limitations which determined future research recommendations following this study comprised the following:

- 1) The ten investigated MY-SMEs firms were a single unit representation of the 'sectoral landscape' and 'signs of crisis' each operated in. The samples in this case lacked the 'collectively exhaustive' element of thematic study to fully cater for a highly robust real-world interpretations on strategy and practices at the onset of prevailing VUCA environment and crisis. It is hoped that future studies to comprise of bigger sample size from each main and subset categories. Nonetheless, the implications on generalisability due to this limitation was not accounted for in this study.
- 2) The key informant from investigated firms were owner-managers and only represented his/her authoritative rule and decision perspectives. Due to the research limitations on access and coverage under the COVID-19 pandemic situation this was satisfactorily accomplished. However, the lack of 'granular' level feedback to depict the entire organisation's aptitude on provisions for change prevailed. Nonetheless, it was the goal of this qualitative study to explore this novel conception of ROs to proceed with the owner-managers. It is hoped that future studies to combine a mixed method approach to gain access to data at granular levels for a more thorough interpretations of the occurring themes.
- 3) The decision on distinguished categories of MY-SMEs firms based on definitive guidelines from SMECorp was essential. However, the minimum number of sample from each identified 'SME criterion for the study' in the company profiles (refer Appendix B1) were not 'mutually exclusive' as there were some overlapping attributes on 'sectors' they operate in. To some extent, however, the industry nature of investigated firms was exclusive. The implications to the research findings could be improved and more accurately depict the 'actual' real-world forward projections of MY-SMEs if a more discrete clustering and bigger number of samples were established. Unfortunately, to the researcher's dismay, this study was limited to the prescribed qualitative method, timeline and access to sample size.

## 5.5 Conclusion & Future Research Recommendations

This final section shall conclude the study with key address on - how to close the (a) strategy knowledge gaps, (b) strategy alignment gaps and (c) strategy outcome gaps with specific context of developing SDM and strategy paradigms capabilities in MY-SMEs, focusing on a list of anticipated high-level outcomes:-

### 5.5.1 Research Conclusions

This research was an explorative and exploitative discovery of the dire need of MY-SMEs on how to deal with implications of unprecedented eventual actualities on the outcome of their strategic decisions. The extant literature review for this research has specified SM, SI and SF constructs and contingency factors perspectives as the major standpoints to generate business continuity and sustainability which has been empirically validated via the qualitative inductive method employed. In general, this study yields several important conclusions:

**Research Conclusion #1: There is no single-method approach to effective strategy-making for growth and maturity particularly at the onset of crisis.**

Nonetheless, it is imperative that MY-SMEs develop the dynamic capability to: (a) adopt strategic postures and response to crisis, (b) develop future-preparedness to reduce crisis occurrence, and (c) manage ambidexterity with absorptive capacity to improve efficacies on crisis interventions.

In relations to closing-off the *strategy knowledge gaps* – this study demonstrated that the choice of conventional SO the firm adopts to manage uncertainty and discontinuous change was acutely intermediated by the lack of organisational LO. Furthermore, conventional fragmented LO deliberations fail to guarantee significant advantage to the SR of MY-SMEs (Hult et al., 2004) as cited by Woodside (2005) which corroborates with the study's within-case analyses and interpretations over the diverse taxonomies of firms' 'SDM configurations' and 'sectoral landscape'. This in turn, further impeded the purposefulness of conventional EO and MO deliberations to generate actionable strategies for reform. Moreover, over-reliance on EO and MO was observed to hinder the firm from obtaining a strategic advantage in dealing with highly VUCA business environments.

This conclusion suggests that the choice of SO must be dependent on ‘situational factors’ (Krzakiewicz & Cyfert, 2019) and owner-managers must necessitate organisational LO arbitrated by KM via absorptive capacity in order to gain advantage over a more precise variety of SOs (Pett et al., 2019) that would truly generate growth and maturity at the advent of highly turbulent crises and future uncertainty.

**Research Conclusion #2: SDM and strategy paradigms should be a continually iterative process with interdependencies of key construct in the derived SR maturity model.**

Conversely, in order to close-off the *strategy alignment gap* – this study uncovered significant misjudgements between strategy practices and the collective organisational praxis of implementation processes especially within SME firms. Despite the recurring debates on strategy praxis and practices remains, a clear distinction observed in MY-SMEs firms was that strategy activities performed by owner-managers were not strictly influenced by macro-level strategy practices and were incoherent with collective organisational activities. This would in turn expose the entire organisation to plausible future decisions mistakes and unwarranted risks. Besides, the strategising routines which were to some extent evident in MY-SMES firms, the collective employment of repetitive strategy activities posited by the SR Maturity Model supports gaining and retaining mediation between praxis and practices (Belmondo & Roussel, 2014) via continuous institutionalised and structuralised routines within the organisation. Nonetheless, the repercussion to time-boundedness of strategy paradigms would be that the adoption of ‘strategy routines’ could indeed take more time in firms with exceptionally depleted absorptive capacity or organisational LO.

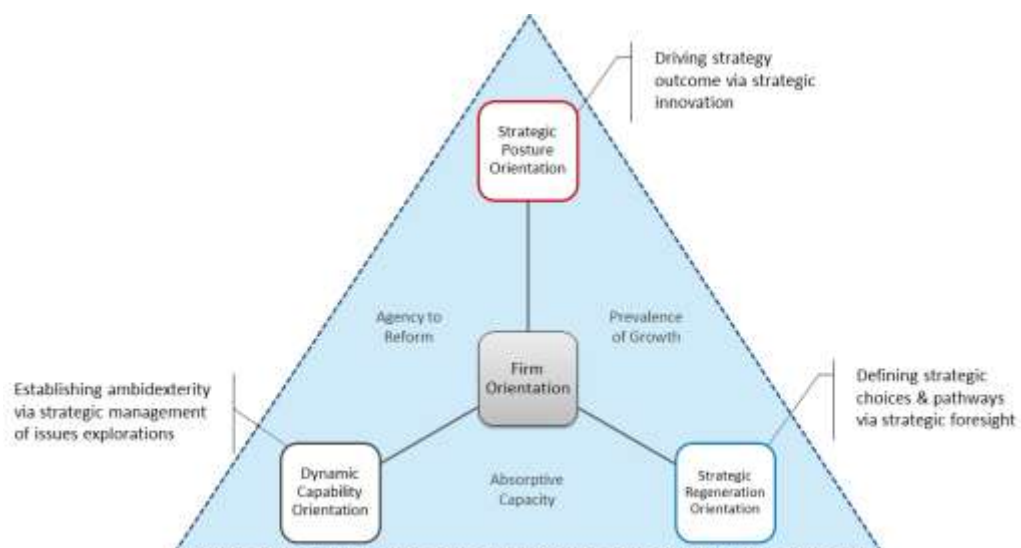
**Research Conclusion #3: Continuous improvements and ‘holistic’ approach to decision-making and strategy-making impetuses are vital in building crisis resilience.**

This was revealed from interpretations and narratives obtained from MY-SMEs during case study interviews. Findings from this study validated the interdependencies of key constructs via the bricolage concept of multiple theoretical perspectives to offer effective guidance on ‘useful’ practices for MY-SMEs. This follows that in order for the firm to close-off the *strategy outcome gaps* – exemplifications from the ascribed case studies confirm that strategising routines must include real-world feedback loops (Woodside, 2005), in which the over-reliance of SO based on fragmented MO and innovation orientation (IO) approaches to build crisis-resilience lack the rationalisation of additional insights which reflects a more accurate visualisation of how SI rooted FO and SPO truly affects firms performance and vice-versa.

On a final note, despite the many challenges faced with apparent size and resources limitations in MY-SMEs, this study revealed that SDM processes in MY-SMEs are – ‘localised’ at owner-manager’s level, prompt and agile. Whereas in large corporations there are multiple layers and red tapes to overcome in making the right decision. However, as much as SMEs need to look-up to and learn on efficient processes and management practices from big companies, big companies must also learn from SMEs in terms of being more involved at the ‘granular’ execution levels to ‘make-sense’ of cross-sectional pathway advantages of SDM which is more effectively implemented in SME firms.

Despite the diversity of components of strategy and SO for firms to adapt and adopt, this study’s SR maturity model demonstrated that properly streamlined and integrated components with higher efficacies and robust dimensions would greatly contribute to the mission and vision of SME organisations to be actually and effectively realised. Figure 5.2 illustrates the reinforcement of the study’s ROs with SO and strategy routines proponents defined by FO as the antecedent to SPO, DCO and SRO. This relationship was intensified thorough explications of findings from the ascribed case studies analyses which epitomise the research’s ultimate conclusion.

Figure 5.2: Illustration of the effectual SO and strategy routines components for MY-SMEs deliberations of successful SR



Source: Developed by researcher

### ***5.5.2 Recommendations for Future Research***

This study provides the substance for future research to further validate the efficient frontiers of various SO taxonomies in dealing with strategy-making and SDM to cater for emerging markets and economic turbulence for SMEs in general. Additionally, further research into examining the causal links with various stages of firm growth and maturity cycles and performance would greatly enhance the understanding and deliberations of contingency factors and FO constructs for successful SR and reform of highly turbulent crisis-affected firms. On the basis of alleviating recognised limitations, this study propagates the following betterment and recommendations for future research:

#### **Recommendation #1: Employ a longitudinal design to answer the RQs.**

This would greatly improve the accuracy of findings on FO, SPO, DCO and SRO corollaries for higher efficacy SO in MY-SMEs firms associated with correlational and causational distinctions by various contingency factors established in this study. Besides, employing a longitudinal qualitative research would increase the precision and focus on how and why MY-SMEs firms perform the stipulated activities and what drives them on strategy imperatives and provisions for change over time. In contrast, the individual firm's critical narratives on timelines, processes and decision trajectories could be better captured. Additionally, further validation and refinement of research propositions (H) in particular H6 could be effectively endorsed for depth and time-boundedness with post-crises observations and interpretations on strategic outcomes of the SR.

#### **Recommendation #2: Employ a cross-sectional design to validate the SR maturity model and examine causal links with larger size and wider population of SME firms.**

Future study should include more SME participants from various cross-sectional levels of firm sizes and 'sectoral landscape'. This would allow deeper exploration on the accuracy and role of each constructs and contingency factors conceived from this study in a 'real-world' organisational decision-making and strategy development environment within the SME community. This follows that with further implications of larger and wider population of SME firms on the study, clarity and accuracy over the 'actor' (Jarzabkowski & Kaplan, 2015) and 'agency' proponents of firms' current organisational and strategy orientations could be established. This would also be especially appropriate to determine the categorical impact of

interdependencies of dynamic capability and absorptive capacity with FO between multiple size and population of MY-SMEs firms.

**Recommendation #3: Extend the research to SMEs in other regions.**

Delineations to levels of market competition and antecedents to value capture (Lepak et al., 2007) in this study was constrained to MY-SMEs within the vicinity of specified territory of Kuala Lumpur. This could impose ambiguities on the response narratives based on cultural dispositions and access to general connectivity and infrastructures. Whilst the fundamental dilemmas on managing resources under extremities of crises are anticipated by the researcher to remain similar, the implications of weak signals and ‘signs of crisis’ on SMEs from *adjacent locations* and *peripheral regions* would generate a more comprehensive and better interpretations of evidence. Consecutively, considerations to further extend the research to SME clusters within the ASEAN countries may also be worthwhile to explore, in search of better comparative analysis on the implications of the SR maturity model on SDM and strategy paradigms for SMEs globally.

**Recommendation #4: Extend the research to large corporations to assess the significance and consequence of SR maturity model on businesses in general.**

This follows that limited samples taken from the constrained horizontal ‘sectoral landscape’ of MY-SMEs are such that the empirical evidence on FO, SPO and SRO from this study may not be generalisable across all the vertical sectors, due to the notions that competitive situations and the external environments are different. Furthermore, firms may also differ in terms of received government supports and incentives.

Therefore, in order to access broader coverage of firms and industries particularly impacted by highly turbulent crises and future uncertainty, it would be advantageous to outline and distinguish the positive correlations of SR with the intensity of corporate level strategic planning in order to associate with firm’s general performance as suggested by past research.

Furthermore, various other business organisations including larger corporations in the hospitality, services, manufacturing and various other sectors alike were greatly affected by post-pandemic megatrends as well. Hence, expanding future studies into larger organisations help understand the relevance and significant contributions of strategic themes and constructs developed from this study. In turn, anticipated enhancement on interpretations of the fundamentals to SDM in such organisations would also open-up a whole new spectrum on the assimilation of FO, SPO and SRO frontiers on strategy imperatives in general.

## List of References

- Abba, M., Yahaya, L., & Suleiman, N. (2018). Explored and critique of contingency theory for management accounting research. *Journal of Accounting and Financial Management* ISSN, 4(5).
- Abd Aziz, N. N., & Samad, S. (2016). Innovation and competitive advantage: Moderating effects of firm age in foods manufacturing SMEs in Malaysia. *Procedia Economics and Finance*, 35(2016), 256-266.
- Abdallah, L., & Persson, M. (2014). The effects of environmental uncertainty conditions on organisational innovativeness and performance of SMEs.
- Abouzeedan, A., Klofsten, M. and Hedner, T. (2013), Internetization management as a facilitator for managing innovation in high-technology smaller firms, *Global Business Review*, Vol. 14 No. 1, pp. 121-136.
- Acar, A. Z., & Özşahin, M. (2018). The relationship among strategic orientations, organizational innovativeness, and business performance. *International Journal of Innovation Management*, 22(01)
- Adizes, I. (1979). Organizational passages—diagnosing and treating lifecycle problems of organizations. *Organizational dynamics*, 8(1), 3-25.
- Adizes, I., (1999). *Corporate Lifecycles: How and why Corporations Grow and Die and What to do about it*. Prentice Hall, London
- Adner, R. & Helfat, C.E. (2003), Corporate effects and dynamic managerial capabilities, *Strategic Management Journal*, October (Special Issue 24), 1011-1025.
- Agarwal, R., & Helfat, C. E. (2009). Strategic renewal of organizations. *Organization science*, 20(2), 281-293.
- Agbim, K.C., Oriarewo, J.O., Zeve, T.A. (2014), Impact of business environmental scanning behavior on the entrepreneurial performance of micropreneurs: A conceptual framework. *European Journal of Business and Management*, 6(24), 87-97.
- Ahlqvist, T., & Uotila, T. (2020). Contextualising weak signals: Towards a relational theory of futures knowledge. *Futures*, 119, 102543.
- Ahmad, N. H., & Seet, P. (2009). Dissecting Behaviours Associated with Business Failure: A Qualitative Study of SME Owners in Malaysia and Australia. *Asian Social Science*, 5(9). doi:10.5539/ass.v5n9p98
- Ahmed, A. & Bwisa, H. & Otieno, R. & Karanja, K. (2014). Strategic Decision Making: Process, Models, and Theories. *Business Management and Strategy*. 5. 78. 10.5296/bms.v5i1.5267.
- Al Mamun, A. (2018). Diffusion of innovation among Malaysian manufacturing SMEs. *European Journal of Innovation Management*.
- Al Mamun, A., Fazal, S. A., Mohiuddin, M., & Su, Z. (2019). Strategic orientations, the mediating effect of absorptive capacity and innovation: A study among Malaysian manufacturing SMEs. *International Journal of Innovation Management*, 23(02), 1950016.

- Altheide, D.L., & Johnson, J.M. (1994). Criteria for assessing interpretive validity in qualitative research. In N.K. Denzin & Y.S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 485-499). Thousand Oaks, CA: Sage.
- Alves, J. C., Lok, T. C., Luo, Y., & Hao, W. (2020). Crisis management for small business during the COVID-19 outbreak: Survival, resilience and renewal strategies of firms in Macau.
- Alyaseen, N. & Braganza, A. (2019), Change Management Applications for SMEs Building Dynamic Capabilities using SME Lifecycle Stages, The British Academy of Management (BAM) Conference Proceedings
- Amankwah-Amoah, J., Khan, Z., & Wood, G. (2020). COVID-19 and business failures: The paradoxes of experience, scale, and scope for theory and practice. *European Management Journal*.
- Ambad, S. N. A., Andrew, J. V., & Amit, D. H. D. A. (2020). Growth Challenges of SMEs: Empirical Evidence in Sabah, Malaysia. *ASEAN Entrepreneurship Journal*, 6(1), 8-14.
- Ambrosini, V., Bowman, C., & Collier, N. (2009). Dynamic capabilities: An exploration of how firms renew their resource base. *British Journal of Management*, 20, S9-S24.
- Ammar, O. & Chereau, P. (2018), Business model innovation from the strategic posture perspective: An exploration in manufacturing SMEs, *European Business Review*, Vol. 30 No. 1, pp. 38-65.
- Andersen, T. J., Torp, S., & Linder, S. (Eds.). (2019). *Strategic Responsiveness and Adaptive Organizations: New Research Frontiers in International Strategic Management*. Emerald Group Publishing.
- Anderson, P. (1999). Perspective: Complexity theory and organization science. *Organization science*, 10(3), 216-232.
- Andresen, F., Schulte, B., & Koller, H. (2020). Foresight-as-emergence: an integrative framework of strategic foresight based on complexity and practice theory. *IEEE Transactions on Engineering Management*.
- Andriopoulos, C., & Lewis, M. W. (2009). Exploitation-exploration tensions and organizational ambidexterity: Managing paradoxes of innovation. *Organization science*, 20(4), 696-717.
- Aneshensel, C. S. (2012). *Theory-based data analysis for the social sciences*. Sage Publications.
- Ansoff, H. I. (1979), *Strategic Management*, McMillan Press, London.
- Ansoff, H. I. (1987). The Emerging Paradigm of Strategic Behavior. *Strategic Management Journal*, Vol. 8, 501-515.
- Ansoff, H. I., & McDonnell, E. (1990), *Implanting Strategic Management*, Prentice-Hall, Upper Saddle River, NJ, pp.185-8.
- Ansoff, H. I., Antoniou, P. & Lewis, A.O. (2004). *Strategic Management: Introduction to the Ansoffian Approach*. Xanadu Press: Michigan.
- Ansoff, H. I., Declerck, R. P., & Hayes, R. L. (1976). From strategic planning to strategic management. In *International Conference on Strategic Management 1973: Vanderbilt University*). Wiley.

- Ansoff, H.I. (1991), Critique of Henry Mintzberg's 'The Design School: Reconsidering the Basic Premises of Strategic Management', *Strategic Management Journal*, Vol. 12, pp. 449-461.
- Ansoff, H.I. (2007). *Strategic Management Classic*, Palgrave Macmillan. Hampshire, UK. <http://dx.doi.org/10.1057/9780230590601>
- APEC (2013), 2013 APEC Economic Policy Report, <https://www.apec.org/Publications/2013/10/2013-APEC-Economic-Policy-Report>, Retrieved on 15 Mar 2019.
- Applegate, L. M., Konsynski, B. R., & Nunamaker, J. F. (1986). Model management systems: Design for decision support. *Decision Support Systems*, 2(1), 81-91.
- Arbussa, A., Bikfalvi, A. and Marquès, P. (2017), Strategic agility-driven business model renewal: the case of an SME, *Management Decision*, Vol. 55 No. 2, pp. 271-293.
- Arcari, A. M. (2018). Preventing crises and managing turnaround processes in SMEs The role of economic measurement tools. *Management Control*.
- Artinger, S., and Powell, T. C. (2016). Entrepreneurial failure: Statistical and psychological explanations. *Strategic Management Journal*, 37 (6), pp. 1047-1064.
- Asemokha, A., Musona, J., Torkkeli, L., & Saarenketo, S. (2019). Business model innovation and entrepreneurial orientation relationships in SMEs: Implications for international performance. *Journal of International Entrepreneurship*, 17(3), 425-453.
- Asgary, Ali & Özdemir, Ali & Özyürek, Hale. (2020). Small and Medium Enterprises and Global Risks: Evidence from Manufacturing SMEs in Turkey. *International Journal of Disaster Risk Science*. 11. 10.1007/s13753-020-00247-0.
- Ates, A., P. Garengo, P. Cocca, & U. Bititci. (2013). The development of SME managerial practice for effective performance management. *Journal of Small Business and Enterprise Development* 20(1): 28–54.
- Auzzir, Z., Haigh, R., & Amaratunga, D. (2018). Impacts of disaster to SMEs in Malaysia. *Procedia engineering*, 212, 1131-1138.
- Ayres, R. U. (2000). On forecasting discontinuities. *Technological forecasting and social change*, 65(1), 81-97.
- Ayuso, S., & Navarrete-Báez, F. E. (2017). How Does Entrepreneurial and International Orientation Influence SMEs' Commitment to Sustainable Development? Empirical Evidence from Spain and Mexico. *Corporate Social Responsibility and Environmental Management*. <https://doi.org/10.1002/csr.1441>
- Baaij, M. & Reinmoeller, P.(2018). *Mapping a Winning Strategy: Developing and Executing a Successful Strategy in Turbulent Markets*. Emerald Group Publishing.
- Baaij, M., Reinmoeller, P., & Niepce, N. (2007). Sustained superior performance in changing environments: towards a synthesis and a research agenda. *Strategic Change*, 16(3), 87-95.
- Babbie, E. (2007), *The Practice of Social Research*, Thomson Learning, Inc., USA.
- Bachtiar, N. K. (2020), When Can SMEs Diversify? A Study of Growth Stage, *Journal of economics, business and management*, Vol. 8, No. 1

- Baghai, M., Coley, S. C., White, D., Conn, C., & McLean, R. J. (1996). Staircases to growth. *The McKinsey Quarterly*, (4), 39-41.
- Baghai, M., Coley, S., & White, D. (1999). *The alchemy of growth: Practical insights for building the enduring enterprise*. Reading, MA: Perseus Books.
- Baker, W. E., & J. M. Sinkula. (2009). The Complementary Effects of Market Orientation and Entrepreneurial Orientation on Profitability in Small Businesses, *Journal of Small Business Management* 47 (4): 443–464. doi:10.1111/j.1540-627X.2009.00278.x.
- Balogun, J., Jacobs, C., Jarzabkowski, P., Mantere, S., & Vaara, E. (2014). Placing strategy discourse in context: Sociomateriality, sensemaking, and power. *Journal of Management Studies*, 51(2), 175-201.
- Bank Negara Malaysia (2013). Circular on Definitions for Small and Medium Enterprises (BNM/RH/CIR028-1). Development Finance and Enterprise Department, Bank Negara Malaysia. Retrieved from [http://www.bnm.gov.my/files/2013/sme\\_cir\\_028\\_1\\_new.pdf](http://www.bnm.gov.my/files/2013/sme_cir_028_1_new.pdf). [15 Feb 2020].
- Bao, Y., B. Olson, & W. Yuan. (2011). Defensive and Expansion Responses to Environmental Shocks in China: Interpreting the 2008 Economic Crisis, *Thunderbird International Business Review* 53 (2): 225–245. doi:10.1002/tie.20403.
- Baran, B.E. & Woznyj, H.M. (2020), Managing VUCA, *Organizational Dynamics*, <https://doi.org/10.1016/j.orgdyn.2020.100787>
- Barreto, I. (2010). Dynamic capabilities: A review of past research and an agenda for the future. *Journal of Management*, 36(1), 256-280.
- Basile, G., Kaufmann, H. R., & Savastano, M. (2018). Revisiting complexity theory to achieve strategic intelligence. *International Journal of Foresight and Innovation Policy*, 13(1-2), 57-70.
- Becker, P. H. (1993). Common pitfalls in published grounded theory research. *Qualitative Health Research*, 3(2), 254-260.
- Beliaeva, T., Shirokova, G., Wales, W., & Gafforova, E. (2020). Benefiting from economic crisis? Strategic orientation effects, trade-offs, and configurations with resource availability on SME performance. *International Entrepreneurship and Management Journal*, 16(1), 165-194.
- Bell, W. (2003), *Foundations of Futures Studies: History, Purposes, and Knowledge, Volume 1: Human Science for a New Era*, Transaction Publishers, Piscataway, NJ.
- Bellamy, L. C., Amoo, N., Mervyn, K., & Hiddlestone-Mumford, J. (2019). The use of strategy tools and frameworks by SMEs in the strategy formation process. *International Journal of Organizational Analysis*.
- Belmondo, C., & Roussel, C. S. (2014). Strategising routines as the missing link between strategy practices and praxis. In *Conférence Internationale de Management Stratégique*.
- Benbasat, I., Goldstein, D. K., & Mead, M. (1987). The case research strategy in studies of information systems. *MIS Quarterly*, 11(3), 369-386.
- Beneki, C., & Papastathopoulos, A. (2009). The impact of structured, unstructured and integrated decision support systems on SME economic performance. An empirical study. *Proceedings of the 3rd International*.

- Bennett, N., & Lemoine, G. J. (2014). What a difference a word makes: Understanding threats to performance in a VUCA world. *Business Horizons*, 57(3), 311-317.
- Bernard, H. R. (2006). *Research methods in Anthropology: Qualitative and quantitative approaches*, Altamira Press, UK.
- Bhaskar, R. (1978). *A realist theory of science*. Hassocks: Harvester Press.
- Bhaskar, R. (1994). *Plato etc.: The problems of philosophy and their resolution*. London: Verso.
- Bhaskar, R. (2010). Contexts of interdisciplinarity: Interdisciplinarity and climate change. In R. Bhaskar, C. Frank, K.G. Høyer, P. Naess, & J. Parker (Eds.), *Interdisciplinarity and climate change: Transforming knowledge and practice for our global future* (pp.1–24). London: Routledge.
- Bhidé, A. (2000). *The origin and evolution of new businesses*. New York: Oxford University Press.
- Bianchini, S., Pellegrino, G., & Tamagni, F. (2016). *Innovation strategies and firm growth*. LEM Papers Series 2016/03, Laboratory of Economics and Management (LEM), Sant'Anna School of Advanced Studies, Pisa, Italy.
- Birkinshaw, J., & Gupta, K. (2013). Clarifying the distinctive contribution of ambidexterity to the field of organization studies. *Academy of Management Perspectives*, 27(4), 287–298. <http://dx.doi.org/10.5465/amp.2012.0167>
- Bišić, H. (2018). The Impact of Restructuring on Improving Performance in the Mature Stage of Corporate Life Cycle. *Anali Pravnog fakulteta Univerziteta u Zenici*, 11(22), 121-136.
- Bjerke, B. V. (2000). A typified, culture-based, interpretation of management of SMEs in Southeast Asia. *Asia Pacific Journal of Management*, 17(1), 103-132.
- Blank, S. (2019). McKinsey's three horizons model defined innovation for years. Here's why it no longer applies. *Harvard Business Review*.
- Blatstein, I.M. (2012). Strategic Planning: Predicting or Shaping the Future? *Organization Development Journal*, Vol. 30 Issues 2, pp. 32
- Bloomberg, L. D., & Volpe, M. (2008). *Completing your qualitative dissertation: A roadmap from begin-ning to end*. Thousand Oaks, CA: Sage.
- Blumentritt, T. (2004), Does small and mature have to mean dull? Defying the ho-hum at SMEs, *Journal of Business Strategy*, Vol. 25, No. 1, pp. 27-33.
- Bodlaj, M., & Čater, B. (2019). The impact of environmental turbulence on the perceived importance of innovation and innovativeness in SMEs. *Journal of Small Business Management*, 57, 417-435.
- Bodolica, V., & Spraggon, M. (2020). Leadership in times of organizational decline: a literature review of antecedents, consequences and moderators. *International Journal of Organizational Analysis*.
- Boland, R. J. (2008). Decision making and sensemaking. In *Handbook on Decision Support Systems 1* (pp. 55-63). Springer, Berlin, Heidelberg.
- Bollen, K. A., & Bauldry, S. (2011). Three Cs in measurement models: causal indicators, composite indicators, and covariates. *Psychological methods*, 16(3), 265.

- BonJour, L. (2005). In defense of the a priori. In Sosa, E. and Steup, M., editors, *Contemporary Debates in Epistemology*. Blackwell, Oxford.
- Borocki, J., Radisic, M., Sroka, W., Greblikaitė, J., & Androniceanu, A. (2019). Methodology for strategic posture determination of SMEs. *Inžinerinė ekonomika= Engineering economics.*, 2019, vol. 30, no 3.
- Bower J (1970) *Managing the Resource Allocation Process* (Harvard Business Press, Cambridge, MA).
- Bradbury, H., & Reason, P. (2001). Conclusion: Broadening the bandwidth of validity: Issues and choicepoints for improving the quality of action research. In P. Reason & H. Bradbury (Eds.), *Handbook of action research: Participative inquiry and practice* (pp. 447–456). Thousand Oaks, CA: SAGE.
- Bradley III, D. B. & Moore H. L. (2000). Small business bankruptcy caused by lack of understanding of business environment and consumer needs, 1998 ICSB Singapore Conference, <http://www.sbaer.uca.edu/research/icsb/1998/88.pdf>
- Brand, M. J., Gemser, G., Maccow, D., & Sorge, A. (2002). The Use of Exploration and Exploitation Strategies for Internationalization by Old and New Economy SMEs. In Babson Kauffman Entrepreneurship Research Conference (pp. 1-24).
- Braun, M., Latham, S., & Cannatelli, B. (2019). Strategy and business models: why winning companies need both. *Journal of Business Strategy*.
- Bree, R. T., & Gallagher, G. (2016). Using Microsoft Excel to code and thematically analyse qualitative data: a simple, cost-effective approach. *All Ireland Journal of Higher Education*, 8(2).
- Bresnick, A. T., & Parnell, S. G. (2013). Decision-making challenges. *Handbook of decision analysis*, 22-46.
- Brun, E. C. (2019). Ambidexterity and Ambiguity. *Managing Medical Technological Innovations: Exploring Multiple Perspectives*, 5, 283.
- Bryman, A. & Bell, E. (2011). *Business Research Methods*, 3rd edn. Oxford: Oxford University Press.
- Bryman, A. (2008). *Social research methods*. Oxford: Oxford University Press.
- Burgelman, R. A., Floyd, S. W., Laamanen, T., Mantere, S., Vaara, E., & Whittington, R. (2017). Strategy processes and practices: Dialogues and intersections. *Strategic management journal*, 39(3), 531-558.
- Burgelman, R.A. (1983), A process model of internal corporate venturing in the diversified major firm. *Admin. Sci. Quart.* 28(2):223.
- Burgers, J. H., & Covin, J. G. (2016). The contingent effects of differentiation and integration on corporate entrepreneurship. *Strategic Management Journal*, 37(3), 521-540.
- Burgess, T. F. (2001). Guide to the Design of Questionnaires. A general introduction to the design of questionnaires for survey research, 30(4), 411-432.
- Burmeister, K., Neef, A. and Beyers, B. (2004), *Corporate Foresight. Unternehmen gestalten Zukunft*, Murrmann, Hamburg.

- Burton, N. & Galvin, P. (2018) Using template and matrix analysis: A case study of management and organisation history research, *Qualitative Research in Organizations and Management: An International Journal*
- Busenitz, L. & Barney, J. (1997), Differences between entrepreneurs and managers in large organizations: Biases and heuristics in strategic decision-making, *Journal of Business Venturing*, Vol. 12, pp. 9-30.
- Buytendijk, F., Hatch, T., & Micheli, P. (2010). Scenario-based strategy maps. *Business Horizons*, 53(4), 335-347.
- Buzzavo, L. (2012). Strategy innovation as business model reconfiguration. Department of Management, Università Ca'Foscari Venezia Working Paper, (2).
- Cachia, M., & Millward, L. (2011). The telephone medium and semi-structured interviews: a complementary fit. *Qualitative Research in Organizations and Management: An International Journal*.
- Caetano, M. & Amaral, D.C. (2011), Roadmapping for technology push and partnership: a contribution for open innovation environments, *Technovation*, Vol. 31 No. 7, pp. 320-335.
- Caiazza, R., Belitski, M., & Audretsch, D. B. (2020). From latent to emergent entrepreneurship: the knowledge spillover construction circle. *The Journal of Technology Transfer*, 45(3), 694-704.
- Caloghirou, Y., Giotopoulos, I., Kontolaimou, A., & Tsakanikas, A. (2020). Inside the black box of high-growth firms in a crisis-hit economy: corporate strategy, employee human capital and R&D capabilities. *International Entrepreneurship and Management Journal*, 1-27.
- Camilleri, M.A. (2018). Theoretical Insights on Integrated Reporting: The Inclusion of Non-Financial Capitals in Corporate Disclosures. *Corporate Communications: An International Journal*. DOI 10.1108/CCIJ-01-2018-0016
- Campbel, D. & Fiske, D. W. (1959), Convergent and discriminant validation by the multitrait-multimethod matrix, *Psych. Bull.* 56: 81-105.
- Campbell, A., & Groundwater-Smith, S. (Eds.). (2010). *Action research in education*. London: Sage.
- Campbell, A., & McNamara, O. (2009). Mapping the field of practitioner research, inquiry and professional learning in educational contexts: a review. In A. Campbell & S. Groundwater-Smith (Eds.), *Connecting inquiry and professional learning in education: international perspectives and practical solutions*. (pp. 10-26). Abingdon, Oxon, U.K: Routledge.
- Campbell, D. T. & Stanley, J. C. (1966) *Experimental and Quasi-Experimental Designs for Research*. Chicago: Rand McNally.
- Campbell, D.T. (1975). Degrees of Freedom and the Case Study. *Comparative Political Studies*, 8(1): 178-191.
- Cao, Q., Gedajlovic, E., & Zhang, H. (2009). Unpacking organizational ambidexterity: Dimensions, contingencies, and synergistic effects. *Organization Science*, 20(4), 781-796.

- Cardoni, A., Zanin, F., Corazza, G., & Paradisi, A. (2020). Knowledge management and performance measurement systems for SMEs' economic sustainability. *Sustainability*, 12(7), 2594.
- Carr, W. & Kemmis, S. (1986) *Becoming critical: education, knowledge and action research*. London: Falmer Press.
- Carson, D., Gilmore, A., Perry, C., & Gronhaug, K. (2001). *Qualitative marketing research*. Sage.
- Carter, W. R. (2015). Ambidexterity deconstructed: A hierarchy of capabilities perspective. *Management Research Review*, 38(8), 794-812. <http://dx.doi.org/10.1108/MRR-05-2014-0116>
- Cassel, C. (2015). *Conducting research interviews for business and management students*. SAGE Publications.
- Cassell, C., Buehring, A., Symon, G., Johnson, P., & Bishop, V. (2005). *Qualitative management research: a thematic analysis of interviews with stakeholders in the field. Benchmarking good practices in qualitative management research: Final report*.
- Cassell, C., Symon, G., Buehring, A., & Johnson, P. (2006). The role and status of qualitative methods in management research: an empirical account. *Management Decision*.
- Ceptureanu, E. G. (2015a). Research regarding change management tools on EU SMEs. *Business Excellence and Management*, 5(2), 28-32.
- Ceptureanu, S. I. (2015). Competitiveness of SMES. *Business Excellence and Management*, 5(2), 55-67.
- Cerchione, R., Esposito, E., & Spadaro, M. R. (2016). A literature review on knowledge management in SMEs. *Knowledge Management Research & Practice*, 14(2), 169-177.
- Chang, Dong-shang & Kuo, Li-chin. (2008). The Effects of Sustainable Development on Firms' Financial Performance - an Empirical Approach. *Sustainable Development*. 16. 365-380. 10.1002/sd.351.
- Chang, Y. C. (2012). Strategy formulation implications from using a sustainable growth model. *Journal of Air Transport Management*, 20, 1-3.
- Chang, Y. Y., Hughes, M., & Hotho, S. (2011). Internal and external antecedents of SMEs' innovation ambidexterity outcomes. *Management Decision*.
- Charmaz, K. (2000). Grounded theory: Objectivist and constructivist methods. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed., pp. 509-535). Thousand Oaks, CA: Sage.
- Charmaz, K. (2005). Grounded theory in the 21st century: Applications for advancing social justice studies. In N. K. Denzin & Y. S. Lincoln, *The Sage handbook of qualitative research* (3rd ed., pp. 507-536). Thousand Oaks, CA: Sage.
- Charmaz, K. (2006). *Constructing grounded theory*. London: Sage.
- Chauhan, A., Joshi, M., Kumar, A., Abidi, S., & Dhiraj, A. (2020). Hindsight-insight-foresight: a strategic combination for enterprises in a VUCA world? *International Journal of Technology Transfer and Commercialisation*, 17(1), 99-113.
- Checkland, P., & Scholes, J. (1990). *Soft systems methodology in action*. Chichester, UK: Wiley.

- Cheng, W. H., Abdul Kadir, K., & Bohari, A. M. (2014). The strategic planning of SMEs in Malaysia: a view of external environmental scanning. *International Journal of Business and Society*, 15(3), 437-446.
- Cheng, W. H., Bohari, A. M., Md Isa, F., & Mohd Maddin, A. (2013). Assessing the model of wheelen and hunger (2008) Model of internal environmental scanning and its applications to the Small Medium Enterprise (SME) in Malaysia. *Asian Journal of Business and Management Sciences*, 2(8), 24-33.
- Chesbrough, H., (2003), *Open Innovation: The New Imperative for Creating and Profiting from Technology*. Harvard Business School Press, Boston, MA.
- Chesbrough, H., Vanhaverbeke, W., & West, J., (2014), *New Frontiers in Open Innovation*. Oxford University Press, Oxford.
- Chetty, S. (1996), The case study method for research in small-and medium-sized firms, *International Small Business Journal*, 15(1), 73-85.
- Chilisa, B. (2011). *Aboriginal research methodologies*. Thousand Oaks: Sage.
- Chin, T.A., Hamid, A.B.A., Rasli, A., Tat, H.H. (2014), A literature analysis on the relationship between external integration, Environmental uncertainty and firm performance in Malaysian SMEs. *European Journal of Business and Management*, 6(24), 87-97.
- Chin, Y. W., & Lim, E. S. (2018). SME policies and performance in Malaysia.
- Chirico, F., & Salvato, C. (2016). Knowledge internalization and product development in family firms: When relational and affective factors matter. *Entrepreneurship Theory and Practice*, 40(1), 201-229.
- Christensen, C. M. (1997). Marketing strategy: learning by doing. *Harvard business review*, 75(6), 141-151.
- Christensen, J.F., Olesen, M.H. & Kjær, J.S. (2005), The industrial dynamics of open innovation evidence from the transformation of consumer electronics, *Research Policy*, Vol. 34 No. 10, pp. 1533-1549.
- Churchill, N. C., & Lewis, V. L. (1983). The five stages of small business growth. *Harvard business review*, 61(3), 30-50.
- Clauss, T., Bouncken, R. B., Laudien, S., & Kraus, S. (2020). Business model reconfiguration and innovation in SMEs: A mixed-method analysis from the electronics industry. *International Journal of Innovation Management*, 24(02), 2050015.
- Cochran-Smith, M. & Lytle, S. (2015). *Inquiry as stance: practitioner research for the next generation*. New York: Teachers College Press.
- Cohen, L., Manion, L., & Morrison, K. (2007). *Research Methods in Education*. London: Routledge.
- Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, 128-152.
- Collis, D., & Anand, B. N. (2019). *The Limitations of Dynamic Capabilities*. Harvard Business School.
- Collis, D.J. (1994). Research Note: How Valuable are Organisational Capabilities? *Strategic Management Journal*, 15(2), 143-152.

- Cook, M. L., Dorff, R. H., Jablonsky, D., Roskin, M. G., Nation, R. C., Marcella, G., ... & Chilcoat, R. A. (2001). US Army War College Guide to Strategy. Strategic Studies Institute.
- Cope, J., & Watts, G. (2000). Learning by doing—an exploration of experience, critical incidents and reflection in entrepreneurial learning. *International Journal of Entrepreneurial Behavior & Research*.
- Courtney, H., Kirkland, J., & Viguerie, P. (1997). Strategy under uncertainty Harvard business review. November-December, available at: <https://hbr.org/1997/11/strategy-under-uncertainty> [Accessed 20 January 2019].
- Covin, J. G., Slevin, D. P., & Heeley, M. B. (2001). Strategic decision making in an intuitive vs. technocratic mode: structural and environmental considerations. *Journal of Business Research*, 52(1), 51-67.
- Cowling, M., Liu, W., & Zhang, N. (2018). Did firm age, experience, and access to finance count? SME performance after the global financial crisis. *Journal of Evolutionary Economics*, 28(1), 77–100.
- Crabtree, B. F., & Miller, W. L. (1992). Doing qualitative research. In Annual North American Primary Care Research Group Meeting, 19th, May 1989, Quebec, PQ, Canada. Sage Publications, Inc.
- Crabtree, B.F. & Miller, W.L. (1999), Using codes and code manuals: a template organizing style of interpretation, in B.F. Crabtree and W.L. Miller (eds), *Doing Qualitative Research*, second edition, Newbury Park, CA: Sage.
- Cray, D., Mallory, G. R., Butler, R. J., Hickson, D. J., & Wilson, D. C. (1991). Explaining decision processes, *Journal of Management Studies*, 28(3), 227-252.
- Creswell, J. W. (2007). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage.
- Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into practice*, 39(3), 124-130.
- Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. Sage publications.
- Crossman, A. (2021). How Intervening Variables Work in Sociology. Retrieved from <https://www.thoughtco.com/intervening-variable-3026367> [Accessed 25/06/2021]
- Crotty, M. (1998), *The foundations of social research*, SAGE PUBLICATIONS, London.
- Crovini, C., Santoro, G., & Ossola, G. (2020). Rethinking risk management in entrepreneurial SMEs: towards the integration with the decision-making process. *Management Decision*.
- Cucculelli, M., & Peruzzi, V. (2020). Post-crisis firm survival, business model changes, and learning: evidence from the Italian manufacturing industry. *Small Business Economics*, 54(2), 459-474.
- Cuhls, K. & Johnston, R. (2006), Corporate future-oriented technology analysis, anchor paper presented at the Second Seville Seminar on Future-oriented Technology Analysis: Impact of FTA Approaches on Policy and Decision-making, IPTS, Seville.
- Cuhls, K. E. (2020). Horizon Scanning in Foresight—Why Horizon Scanning is only a part of the game. *Futures & Foresight Science*, 2(1), e23.

- Cui, L., Su, S. I. I., Feng, Y., & Hertz, S. (2019). Causal or effectual? Dynamics of decision-making logics in servitization. *Industrial Marketing Management*, 82, 15-26.
- Curran, J., & Blackburn, R. (2000). *Researching the small enterprise*. Sage.
- Curry, A., & Hodgson, A. (2008). Seeing in multiple horizons: connecting futures to strategy. *Journal of Futures Studies*, 13(1), 1-20.
- Dagnino, G. B., King, D. R., & Tienari, J. (2017). Strategic management of dynamic growth (Editorial). *Long Range Planning*, 50(4), 427-430. <https://doi.org/10.1016/j.lrp.2017.06.002>
- d'Amboise, G. & Muldowney, M. (1988), Management theory for small business: attempts and requirements, *The Academy of Management Review*, Vol. 13 No. 2, pp. 226-40.
- Dator, J. (2019). What futures studies is and is not. In *Jim Dator: A Noticer in Time* (pp. 3-5). Springer, Cham.
- David, F.R. (2009). *Strategic Management: Concepts and Cases*. 12th ed. FT Prentice Hall, p. 36-37, 40, 48
- Davidson, C. (2009). Transcription: Imperatives for qualitative research. *International journal of qualitative methods*, 8(2), 35-52.
- Davidsson P., L. Achtenhagen, & L. Naldi (2010). Small Firm Growth. *Foundations and Trends in Entrepreneurship*, 6(2), 69-166.
- De Jorge Moreno J, Castillo LL & Masere EDZ, (2007) Influence of Entrepreneur Type, Region and Sector Effects on Business Self-Confidence: Empirical Evidence from Argentine Firms, *Entrepreneurship & Regional Development*, 19(1), pp. 25-48.
- De Vaus, D. A. (2001), *Research Design in Social Research*. London: SAGE
- Delmar, F. & Davidsson, P. & Gartner, W. (2003) Arriving at the high growth firm. *Journal of Business Venturing*, 18(2), pp. 189-216.
- Denscombe, M. (1998). *The good research guide for small scale projects*. Buckingham: Open University Press.
- Denzin, N. K., & Lincoln, Y. S. (2003). *The Landscape of Qualitative Research: Theories and Issues* (2nd ed.). Thousand Oaks: Sage Publication.
- Denzin, N., & Lincoln, Y. (2005). *Handbook of qualitative research* (3rd ed.). Thousand Oaks, CA: Sage.
- DeToro, I., & McCabe, T. (1997). How to Stay Flexible and Elude Fads. *Quality Progress*, 30(3), 55 - 60.
- Devitt, M. (2005). There is no a priori. *Contemporary debates in epistemology*, 3, 105-115.
- Dewey, J. (1910) *How we think* . Boston: D. C. Heath.
- Dey, I. (1993). *Qualitative data analysis: A user-friendly guide for social scientists*. London: Routledge.
- Dibrell, C., Davis, P. S., & Craig, J. (2008). Fueling innovation through information technology in SMEs. *Journal of small business management*, 46(2), 203-218.
- Doane, D. & MacGilivray, A. (2001), *Economic sustainability: the business of staying in business*, New economics foundation, London.

- Dobbs, M. & Hamilton, R. (2007), Small business growth: recent evidence and new directions, *International Journal of Entrepreneurial Behavior & Research*, Vol. 13 No. 5, pp. 296-322. <https://doi.org/10.1108/13552550710780885>
- Dolz, C., Iborra, M., & Safón, V. (2019). Improving the likelihood of SME survival during financial and economic crises: The importance of TMTs and family ownership for ambidexterity.
- Doz, Y. & Kosonen, M. (2010), Embedding Strategic Agility. A Leadership Agenda for Accelerating Business Model Renewal, *Long Range Planning*, Vol. 43, pp. 370-382.
- Drake, P., & Heath, L. (2010). Practitioner research at doctoral level: Developing coherent research methodologies. Routledge.
- Durand, R. & Vaara, E. (2009). Causation, counterfactuals, and competitive advantage. *Strategic Management Journal*, 30, 1245–1264.
- Earley, C. P. (1986). Supervisors and shop stewards as sources of contextual information in goal setting: A comparison of the U.S. with England. *Journal of Applied Psychology* 71 (1): 111–7.
- Easterby-Smith, M., Antonacopoulou, E., Simm, D., & Lyles, M. (2004). Constructing contributions to organizational learning: Argyris and the next generation. *Management Learning*, 35(4), 371-380.
- Easterby-Smith, M., Thorpe, R. & Jackson, P. (2012). *Management Research*, 4th edn. London: Sage.
- Eggers, F., Hansen, D. J., & Davis, A. E. (2012). Examining the relationship between customer and entrepreneurial orientation on nascent firms' marketing strategy. *International Entrepreneurship and Management Journal*, 8(2), 203–222.
- Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of management review*, 14(4), 532-550.
- Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of management journal*, 50(1), 25-32.
- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic Capabilities: What are They? *Strategic Management Journal*, 21, 1105-1121.
- Eisenhardt, K. M., & Zbaracki, M. J. (1992). Strategic decision making. *Strategic management journal*, 13(S2), 17-37.
- Ejdys, J. (2014). Future oriented strategy for SMEs. *Procedia-Social and Behavioral Sciences*, 156, 8-12.
- Elbanna, S. (2006). Strategic decision-making: Process perspectives. *International Journal of Management Reviews*, 8(1), 1-20.
- Elbanna, S., Al Katheeri, B., & Colak, M. (2020a). The harder firms practice strategic management, the better they are. *Strategic Change*, 29(5), 561-569.
- Elbanna, S., Child, J., & Dayan, M. (2013). A model of antecedents and consequences of intuition in strategic decision-making: Evidence from Egypt. *Long Range Planning*, 46(1-2), 149-176.

- Elbanna, S., Hsieh, L., & Child, J. (2020b). Contextualizing Internationalization Decision-making Research in SMEs: Towards an Integration of Existing Studies. *European Management Review*, 17(2), 573-591.
- Elbanna, S., Thanos, I. C., & Jansen, R. J. G. (2020c). A literature review of the strategic decision-making context: A synthesis of previous mixed findings and an agenda for the way forward. *M@n@gement*, 23(2), 42-60. <https://doi.org/10.37725/mgmt.v23i2.4621>
- Ellis, T. J., & Levy, Y. (2010). A guide for novice researchers: Design and development research methods. In *Proceedings of Informing Science & IT Education Conference (InSITE)* (Vol. 10, pp. 107-118).
- Emmel, N. (2013). *Sampling and choosing cases in qualitative research: A realist approach*. London: Sage.
- Engeström, Y. (2001) Expansive learning at work: toward an activity theoretical reconceptualization. *Journal of Education and Work*, 14 (1), 133–156.
- Eniola, A. A. (2018). Entrepreneur-sme manager traits and sources of financing. In *African entrepreneurship* (pp. 223-259). Palgrave Macmillan, Cham.
- Eraut, M. (1994) *Developing professional knowledge and competence*. London: Falmer Press.
- Erdmann, L. & Behrendt, S. (2006), From technology-driven roadmapping towards sustainability-oriented roadmapping: development and application of an integrated methods, paper presented at the Second Seville Seminar on Future-oriented Technology Analysis: Impact of FTA Approaches on Policy and Decision-making, IPTS, Seville.
- Eric, W. L. & Thomas, G. P. (2020), Strategies for small business: Surviving and thriving in the era of COVID-19, *Journal of the International Council for Small Business*, DOI: 10.1080/26437015.2020.1779538
- Expósito, A., & Sanchis-Llopis, J. A. (2019). The relationship between types of innovation and SMEs' performance: A multi-dimensional empirical assessment. *Eurasian Business Review*, 9(2), 115-135.
- F
- Fairclough, N. (2005). Peripheral vision: Discourse analysis in organization studies: The case for critical realism. *Organization studies*, 26(6), 915-939.
- Faulkner, B., & Russell, R. (2001). Turbulence, chaos and complexity in tourism systems: A research direction for the new millennium. *Tourism in the twenty-first century: reflections on experience*, 328-349.
- Fazey, I., Moug, P., Allen, S., Beckmann, K., Blackwood, D., Bonaventura, M., ... & Wolstenholme, R. (2018). Transformation in a changing climate: a research agenda. *Climate and Development*, 10(3), 197-217.
- Feagin, J., Orum, A., & Sjoberg, G. (1991). *A Case for Case Study*. Chapel Hill, NC: University of North Carolina Press.
- Ferasso, M., Takahashi, A. R. W., & May, M. R. (2017). Dynamic capabilities, Operational capabilities and SMEs Performance: A Synthesis of Researches. *International Association for Management of Technology*.

- Ferngani, A. (2020), Futures Triangle 2.0: integrating the Futures Triangle with Scenario Planning, *Foresight*, Vol. 22 No. 2, pp. 178-188. <https://doi.org/10.1108/FS-10-2019-0092>
- Fernandes, B., Ferreira, J. M., Gimenez, F. A. P., & Rese, N. (2017). The inception of dynamic capabilities in SMEs. *International Journal of Entrepreneurship*, 21(2), 1-13.
- Firestone, W. A. (1987). Meaning in method: The rhetoric of quantitative and qualitative research. *Educational researcher*, 16(7), 16-21.
- Fletcher, M., & Plakoyiannaki, E. (2011), Case study selection: key issues and common misconceptions, In: R. Marschan-Piekkari & C. Welch (Eds.), *Rethinking the case study research in international business and management research* (pp. 171–191), Edward Elgar Publishing Ltd., Cheltenham.
- Flick, U., Kardorff, E., & Steinke, I. (2004). *A companion to qualitative research*. London, England: Sage.
- Florida, R. (2002). *The Rise of the Creative Class and How It's Transforming Work, Leisure, Community and Everyday Life*, New York, NY: Basic Books.
- Foddy, W. (1994) *Constructing Questions for Interviews and Questionnaires*, Cambridge University Press.
- Folkeringa, M., Meijaard, J., & van Stel, A. (2004). Strategic Renewal and its Effect on Small Firm Performance. *EIM Scales Paper N*, 200322.
- Foo, L. P., Chin, M. Y., Tan, K. L., & Phuah, K. T. (2020). The impact of COVID-19 on tourism industry in Malaysia. *Current Issues in Tourism*, 1-5.
- Fourné, S. P., Rosenbusch, N., Heyden, M. L., & Jansen, J. J. (2019). Structural and contextual approaches to ambidexterity: A meta-analysis of organizational and environmental contingencies. *European Management Journal*, 37(5), 564-576.
- Freeman, C. (1987). Technical innovation, diffusion, and long cycles of economic development. In *The long-wave debate* (pp. 295-309). Springer, Berlin, Heidelberg.
- Freeman, C., Clark, J., & Soete, L. (1982). *Unemployment and technical innovation: a study of long waves and economic development*. Burns & Oates.
- Freeman, R. and McVae, J. (2001), A stakeholder approach to strategic management, in Hitt, M., Freeman, R. and Harrison, J. (Eds), *Handbook of Strategic Management*, Blackwell, Malden, MA.
- Freiling, J. (2007). *SME Management-What Can We Learn from Entrepreneurship Theory?* Available at SSRN 984658.
- Frishammar, J., & S. Andersson. (2009). The Overestimated Role of Strategic Orientations for International Performance in Smaller Firms. *Journal of International Entrepreneurship* 7 (1): 57–77. doi:10.1007/s10843-008-0031-9.
- Fu, X. (2012), How does openness affect the importance of incentives for innovation? *Research Policy*, Vol. 41 No. 3, pp. 512-523.
- Gandia, R., & Gardet, E. (2019). Sources of dependence and strategies to innovate: Evidence from video game SMEs. *Journal of Small Business Management*, 57(3), 1136-1156.
- Gao, J., & Alas, R. (2010). The impact of crisis on enterprise life cycle. *Problems and Perspectives in Management*, (8, Iss. 2), 9-20.

- Gardet, E., & Fraiha, S. (2012). Coordination modes established by the hub firm of an innovation network: The case of an SME bearer. *Journal of Small Business Management*, 50(2), 216-238.
- Gassmann, O., (2006). Opening up the innovation process: towards an agenda. *R&D Management* 36(3), 223–228.
- Gaudet, S., & Robert, D. (2018), *A journey through qualitative research: From design to reporting*. Sage.
- Gentile-Lüdecke, S., de Oliveira, R. T., & Paul, J. (2020). Does organizational structure facilitate inbound and outbound open innovation in SMEs? *Small Business Economics*, 55(4), 1091-1112.
- Georghiou, L., Harper, J., Keenan, M., Miles, I., & Popper, R. (2008). *The Handbook of Technology Foresight - Concepts and Practice*. Edward Elgar Publishing.
- Geroski PA & Gregg P, (1993) *Coping with the Recession*, National Institute Economic Review, 146, pp. 64-74.
- Gersick, C. J. (1988). Time and transition in work teams: Toward a new model of group development. *Academy of Management journal*, 31(1), 9-41.
- Ghezzi, A., Balocco, R., & Rangone, A. (2010). How to get strategic planning and business model design wrong: the case of a mobile technology provider. *Strategic Change*, 19(5-6), 213-238.
- Gianos, J. F. (2013). A brief introduction to Ansoffian theory and the optimal strategic performance-positioning matrix on small business (OSPP). *Journal of Management Research*, 5(2), 107.
- Gibb, A. A. (1993). Key factors in the design of policy support for the small and medium enterprise (SME) development process: an overview. *Entrepreneurship & Regional Development*, 5(1), 1-24.
- Gibcus, P., & Van Hoesel, P. H. M. (2004). *Transforming an idea into a strategic decision in SMEs*. Zoetermeer: EIM.
- Gigerenzer, G., & Goldstein, D. (1996). Reasoning the fast and frugal way: Models of bounded rationality. *Cognitive Science*, 103(4), 650–666.
- Giones, F., Brem, A., & Berger, A. (2019). Strategic decisions in turbulent times: Lessons from the energy industry. *Business Horizons*, 62(2), 215-225.
- Glaser, B.G. & Strauss, A.L. (1967). *The Discovery of Grounded Theory: Strategies for qualitative research*, Chicago: Aldine Publishing Company
- Gordon, A. V., Ramic, M., Rohrbeck, R., & Spaniol, M. J. (2020). 50 Years of corporate and organizational foresight: Looking back and going forward. *Technological Forecasting and Social Change*, 154, 119966.
- Gourinchas, P. O., Kalemli-Özcan, Ş., Penciakova, V., & Sander, N. (2020). Covid-19 and SME failures (No. w27877). National Bureau of Economic Research.
- Grant, R.M. (2013), *Contemporary strategy analysis: test and cases*, 8th edn. John Wiley & Sons Ltd.

- Gräßler, I., Thiele, H., & Scholle, P. (2020). Assessing the future: methods and criteria, In Proceedings of the Design Society: DESIGN Conference (Vol. 1, pp. 569-576). Cambridge University Press.
- Greenwood, D. J., & Levin, M. (2000). Reconstructing the relationships between universities and society through action research. *Handbook of qualitative research*, 2, 85-106.
- Greiner, L. E. (1972). Evolution and revolution as organizations grow, *Harvard Bus. Rev.*, vol. 50, pp. 37–46,
- Greiner, L. E. (1998). Evolution and Revolution as Organizations Grow. *Harvard Business Review*, 76(3), 55–68.
- Grimaldi, M., Quinto, I. & Rippa, P. (2013), Enabling open innovation in small and medium enterprises: a dynamic capabilities approach, *Knowledge and Process Management*, Vol. 20 No. 4, pp. 199-210.
- Guba, E.G., & Lincoln, Y.S. (1994). Competing paradigms in qualitative research. In N.K. Denzin & Y.S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105-117). Thousand Oaks, CA: Sage.
- Guercini, S., & Milanesi, M. (2020). Heuristics in international business: A systematic literature review and directions for future research. *Journal of International Management*, 26(4), 100782.
- Guiette, A., & Vandenbempt, K. (2020). Reframing organizational change from a processual perspective. *European Journal of Training and Development*.
- Gummesson, E. (2002). Relationship marketing and a new economy: It's time for de-programming. *Journal of Services Marketing*, 16, 585–589.
- Günsel, A., Altındağ, E., Keçeli, S. K., Kitapçı, H., & Hızıroğlu, M. (2018). Antecedents and consequences of organizational ambidexterity: The moderating role of networking. *Kybernetes*.
- Gupta, P. (2011). Leading innovation change-The Kotter way. *International Journal of Innovation Science*, 3(3), 141-150.
- Guthrie, C. (2007). On learning the research craft: memoirs of a journeyman researcher. *Journal of Research Practice*, 3, pp. 1–9.
- Gyanwali, M. (2020) SME Growth in a Recession: What Does a Growing Business Tell? *Open Journal of Business and Management*, 8, 208-230. <https://doi.org/10.4236/ojbm.2020.81013>
- Haasnoot, M., Kwakkel, J. H., Walker, W. E., & ter Maat, J. (2013). Dynamic adaptive policy pathways: A method for crafting robust decisions for a deeply uncertain world. *Global environmental change*, 23(2), 485-498.
- Hadi, S. (2020). New perspective on the resilience of SMEs proactive, adaptive, reactive from business turbulence: A systematic review.
- Haessler, P. (2020). Strategic Decisions between Short-Term Profit and Sustainability. *Administrative Sciences*, 10(3), 63.
- Hagen, B., Zucchella, A., Larimo, J., & Dimitratos, P. (2017). A taxonomy of strategic postures of international SMEs. *European Management Review*, 14(3), 265-285.

- Hakala, H. (2011). Strategic orientations in management literature: Three approaches to understanding the interaction between market, technology, entrepreneurial and learning orientations. *International Journal of Management Reviews*, 13(2), 199-217.
- Halim, F. A., Malim, M. R., Derasit, Z., Rani, R. M., & Rashid, S. S. (2017). The impact of macroeconomic variables on SMEs in Malaysia. In *Journal of Physics: Conference Series* (Vol. 890, No. 1, p. 012138). IOP Publishing.
- Hallberg, N. L. (2015). Uncertainty, judgment, and the theory of the firm. *Journal of Institutional Economics*, 11(3), 623.
- Hamburg, I. (2020). Learning for sustainable development through innovation in SMEs. *Advances in Social Sciences Research Journal*, 7(8).
- Han, Z., & J. Nigg. (2011). The influences of business and decision makers' characteristics on disaster preparedness—A study on the 1989 Loma Prieta Earthquake. *International Journal of Disaster Risk Science* 2(4): 22–31.
- Handzic, M. (2006). Knowledge management in SMEs. *CACCI Journal*, 1, 1-11.
- Hanks, S.H., Watson, C.J., Jansen, E. & Chandler, G.N. (1993), Tightening the life-cycle construct: a taxonomic study of growth stage configurations in high-technology organizations, *Entrepreneurship Theory and Practice*, vol. 18, no. 2, pp.
- Hansen, E. G., Wicki, S., & Schaltegger, S. (2019). Structural ambidexterity, transition processes, and integration trade-offs: a longitudinal study of failed exploration. *R&D Management*, 49(4), 484-508.
- Harris, R., McAdam, R., McCausland, I., & Reid, R. (2013). Levels of innovation within SMEs in peripheral regions: the role of business improvement initiatives. *Journal of Small Business and Enterprise Development*.
- Harris, S. G., & Sutton, R. I. (1986). Functions of parting ceremonies in dying organizations. *Academy of Management journal*, 29(1), 5-30.
- Hashi, I., & Krasniqi, B. A. (2011). Entrepreneurship and SME growth: evidence from advanced and laggard transition economies. *International Journal of Entrepreneurial Behavior & Research*.
- Hashim, M. K. (2000). Strategy types, environment, distinctive capabilities and performance of small and medium-size enterprises of Malaysian manufacturing sector. PhD diss., Universiti Sains Malaysia.
- Hashim, M.A. & Ahmad, S.A. (2005), Issues and research agenda for Malaysian SMEs revisited. In: Hashim, M.K., editor, *Small and Medium-Sized Enterprises in Malaysia: Challenges in the New Economy*. Sintok: Universiti Utara Malaysia.
- Hasim, M., Ishak, M., & Shamsudin, M. (2018). Exploring the Barriers to Internationalisation for Malaysian SMEs. *International Journal of Engineering & Technology*, 7(4.29), 103-105.
- Hassan, N., & Raziq, A. (2019). Effects of knowledge management practices on innovation in SMEs. *Management Science Letters*, 9(7), 997-1008.
- Hauser, A., Eggers, F., & Güldenber, S. (2020). Strategic decision-making in SMEs: effectuation, causation, and the absence of strategy. *Small Business Economics*, 54(3), 775-790.

- Headd, B. (2001). *Business Success: Factors leading to surviving and closing successfully*. Center for Economic Studies, US Department of Commerce, Bureau of the Census.
- Heikkilä, M., Bouwman, H., & Heikkilä, J. (2018). From strategic goals to business model innovation paths: an exploratory study. *Journal of Small Business and Enterprise Development*. Vol. 25 No. 1, pp. 107-128.
- Heine, K., & Rindfleisch, H. (2013). Organizational decline: A synthesis of insights from organizational ecology, path dependence and the resource-based view. *Journal of Organizational Change Management*, 26(1), 8-28.
- Heinonen, S., & Hiltunen, E. (2012). Creative Foresight Space and the Futures Window: Using visual weak signals to enhance anticipation and innovation. *Futures*, 44(3), 248-256.
- Helfat, C., Finkelstein, S., Mitchell, W., Peteraf, M., Singh, H., Teece, D. & Winter, S. (2007), *Dynamic Capabilities: Understanding Strategic Change in Organization*, Blackwell Publishing, Oxford, UK, pp. 30-45.
- Heracleous, L., & Werres, K. (2016). On the road to disaster: Strategic misalignments and corporate failure. *Long Range Planning*, 49(4), 491-506.
- Herbane, B. (2019). Rethinking organizational resilience and strategic renewal in SMEs. *Entrepreneurship & Regional Development*, 31(5-6), 476-495.
- Higón, D. A. (2012). The impact of ICT on innovation activities: Evidence for UK SMEs. *International Small Business Journal*, 30(6), 684-699.
- Hiles, A. (2010). *The definitive handbook of business continuity management*. John Wiley & Sons.
- Hill, S. A. & Birkinshaw, J. (2014). Ambidexterity and Survival in Corporate Venture Units. *Journal of Management*, 40(7), pp. 1899-1931. doi: 10.1177/0149206312445925
- Hiltunen E (2013), *Foresight and Innovation. How Companies are Coping with the Future*, Palgrave Macmillan.
- Hiltunen, E. (2008). The future sign and its three dimensions. *Futures*, 40(3), 247-260.
- Hines, A. (2002), A practitioner's view of the future of futures studies. *Futures* 34(3-4):337-347
- Hock-Doepgen, M., Clauss, T., Kraus, S., & Cheng, C. F. (2021). Knowledge management capabilities and organizational risk-taking for business model innovation in SMEs. *Journal of Business Research*, 130, 683-697.
- Hodgkinson, G.P., & Starkey, K. (2011). Not simply returning to the same answer over and over again: Reframing relevance. *British Journal of Management*, 22(3), 355-369.
- Hofer, C. W. (1980). Turnaround strategies. *Journal of business strategy*.
- Horbunova, A. V., & Buhai, V. Z. (2019). Corporate life cycle as an instrument of its growth management. *Innovations*, 7(4), 127-129.
- Horney, N., Pasmore, B. & O'Shea, T. (2010). Leadership agility: A business imperative for a VUCA world. *People & Strategy*, 33, 4
- Horton, A. (2012). Complexity science approaches to the application foresight. *Foresight-The journal of future studies, strategic thinking and policy*, 14(4), 294-303.

- Hortovanyi, L., Szabo, R. Z., & Fuzes, P. (2021). Extension of the strategic renewal journey framework: The changing role of middle management. *Technology in Society*, 65, 101540.
- Hoy, F. (2006). The complicating factor of life cycles in corporate venturing. *Entrepreneurship: Theory and Practice*, November, 831–836.
- Hsieh, C. E. (2004). Strengths and weaknesses of qualitative case study research. *University of Leicester Publishing*, 86-116.
- Hu, E. (2017), SME challenges and solutions: a practical guide for SMEs to elevate their businesses to the next level, Bankers perspective series on SMEs, MPH Group Publishing, 15-20.
- Huang, X. (2009). Strategic decision making in Chinese SMEs. *Chinese Management Studies*.
- Huber, G. P. (1991). Organizational learning: The contributing processes and the literatures. *Organization science*, 2(1), 88-115.
- Hudáková, M., & Dvorský, J. (2018). Assessing the risks and their sources in dependence on the rate of implementing the risk management process in the SMEs. *Equilibrium-quarterly Journal of economics and economic policy*.
- Hurst, J. B., Kinney, M., & Weiss, S. J. (1983). The decision-making process. *Theory & Research in Social Education*, 11(3), 17-43.
- Ibrahim, N., Rizal, A. M., Kamarudin, S., & Husin, M. M. (2019). Exploration and Exploitation Strategies in SME Family Firms. *International Journal of Academic Research in Business and Social Sciences*, 9(1), 430–442
- Idowu, O. E. (2016). Criticisms, constraints and constructions of case study research strategy. *Asian Journal of Business and Management*, 4(5).
- Igartua, J.I., Garrigos, J., & Hervás-Oliver, J. (2010), How innovation management techniques support an open innovation strategy, *Research Technology Management*, 53(3), pp. 41–52.
- Inayatullah, S. (1998). Causal layered analysis: Poststructuralism as method. *Futures*, 30(8), 815-829.
- Inayatullah, S. (2007). *Questioning the Future: Methods and Tools for Organizational and Societal Transformation*. Tamsui: Tamkang University.
- Inayatullah, S. (2008), Six pillars: futures thinking for transforming, *Foresight*, Vol. 10 No. 1, pp. 4-21. <https://doi.org/10.1108/14636680810855991>
- Inayatullah, S. (Ed.) (2004). *The Causal Layered Analysis (CLA) Reader*, Taipei: Tamkang University Press
- Inayatullah, Sohail. (2019). Causal Layered Analysis A Four-Level Approach to Alternative Futures RELEVANCE AND USE IN FORESIGHT. *Futuribles*.
- Isada, F., & Isada, Y. (2014). An Empirical Study about Sustainable Growth and Organization Innovation of a Multinational Firm in an Emerging Country. *Journal of Economics, Business and Management*, 3(3), 383-390.

- ITC (2020), SME Competitiveness Outlook 2020: COVID-19: The Great Lockdown and its Impact on Small Business, ITC, Geneva, <http://www.intracen.org> (accessed on 23 June 2020).
- Jabareen, Y. (2008). A New Conceptual Framework for Sustainable Development. *Environment, Development and Sustainability*. 10. 179-192. 10.1007/s10668-006-9058-z.
- Janis, I. L. (1989). *Crucial decisions: Leadership in policymaking and crisis management*. Simon and Schuster.
- Jankelová, N. (2017). Strategic Decision Making and Its Importance in Small Corporations. In *Corporate Governance and Strategic Decision Making*. IntechOpen.
- Jankowicz, A., (2000), *Business research projects*, 3rd Edition, Thomson Learning, London.
- Jannek, K. & Burmeister, K. (2007), *Corporate foresight in small and medium-sized enterprises*, EFMN Foresight Brief №101, Z-punkt GmbH.
- Jargowsky, P. A. (2005). The ecological fallacy. *Encyclopedia of social measurement*, 1, 715-722.
- Jarzabkowski, P., & Kaplan, S. (2015). Strategy tools-in-use: A framework for understanding “technologies of rationality” in practice. *Strategic management journal*, 36(4), 537-558.
- Jasinska, J. (2018). Crisis as a Determinant of Enterprise Development. *Scholar Journal of Applied Sciences and Research*, 1(5), 43-49.
- Jemison, D.B. (1984), The importance of boundary spanning roles in strategic decision-making, *J Manage Stud*, 21(2): 131-152.
- Jensen, E., & Brehmer, B. (2005). Sensemaking in the fog of war: an experimental study of how command teams arrive at a basis for action. SWEDISH NATIONAL DEFENCE COLLEGE STOCKHOLM (SWEDEN) DEPT OF WAR STUDIES.
- Jiang, Y., Scott, N., & Ritchie, B. W. (2018). Crisis management and strategic implications. *Strategic Management in Tourism*. CAB International, 264-278.
- John-Eke, E. C., & Eke, J. K. (2020). Strategic Planning and Crisis Management Styles in Organizations: A Review of Related Literature. *Journal of Strategic Management*, 5(1), 36-46.
- Johnson, G, Scholes, K. & Whittington, R. (2008). *Exploring Corporate Strategy*. 8th ed. FT Prentice Hall, p. 11-12
- Johnson, G., Langley, A., Melin, L., & Whittington, R. (2007). *Strategy as practice: research directions and resources*. Cambridge University Press.
- Jones, N. (2009). SME's Life Cycle-Steps to Failure or Success? *AU-GSB e-JOURNAL*, 2(2).
- Joo, K., Suh, J. H., Lee, D., & Ahn, K. (2020). Impact of the global financial crisis on the crude oil market. *Energy Strategy Reviews*, 30, 100516.

K

- Kafchehi, Parviz & Hasani, Kaveh & Gholami, Arman. (2016). The Relationship between Innovation Orientation and Strategic Typology in Business Firms. *International Journal of Knowledge-Based Organizations*. 6. 1-20. 10.4018/IJKBO.2016040101.

- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47, 263–291.
- Kamal, E. M., & Flanagan, R. (2012). Understanding absorptive capacity in Malaysian small and medium sized (SME) construction companies. *Journal of Engineering, Design and Technology*.
- Kaplan, S., & Orlikowski, W. J. (2013). Temporal work in strategy making. *Organization science*, 24(4), 965-995.
- Karadag, H. (2016). The role of SMEs and entrepreneurship on economic growth in emerging economies within the post-crisis era: An analysis from Turkey. *Journal of Small Business and Entrepreneurship Development* 4(1): 22–31.
- Karam, M. G. (2018). The impact of strategic planning on crisis management styles in the 5-star hotels. *Journal of Hotel Business Manage*, 7, 171.
- Karikomi, S. (1998), Development strategy for SMEs in Malaysia, Working paper series 97/98- No. 4, Tokyo: IDE APEC Study Centre
- Kartajaya, H., Kotler, P., & Huan, H. D. (2019). Asian competitors: Marketing for competitiveness in the age of digital consumers. World Scientific Publishing Co.
- Kato, M., & Charoenrat, T. (2018). Business continuity management of small and medium sized enterprises: Evidence from Thailand. *International journal of disaster risk reduction*, 27, 577-587.
- Keenan, M., & Popper, R. (2007). Combining foresight methods for impacts. In NISTEP 3rd International Conference on Foresight. Tokyo (Vol. 19).
- Kemmis, S. (2001). Exploring the relevance of critical theory for action research: Emancipatory action research in the footsteps of Jurgen Habermas. In P. Reason & H. Bradbury (Eds.) *Handbook of Action Research: Participative inquiry and practice*. (pp. 91–102). Thousand Oaks, CA: Sage.
- Kenny, D. A. (2021). Multitrait-multimethod matrix: Method in the madness. In *Advanced Multitrait-Multimethod Analyses for the Behavioral and Social Sciences* (pp. 16-27). Routledge.
- Ketchen Jr, D. J., & Palmer, T. B. (1999). Strategic responses to poor organizational performance: A test of competing perspectives. *Journal of Management*, 25(5), 683-706.
- Khan, S. H., Majid, A., & Yasir, M. (2020). Strategic renewal of SMEs: the impact of social capital, strategic agility and absorptive capacity. *Management Decision*.
- Kidder, L. H., & Fine, M. (1987). Qualitative and quantitative methods: When stories converge. *New directions for program evaluation*, 1987(35), 57-75.
- Kiesnere, A. L., & Baumgartner, R. J. (2019). Sustainability management in practice: Organizational change for sustainability in smaller large-sized companies in Austria. *Sustainability*, 11(3), 572.
- Kilpatrick, J. (2020). COVID-19: Managing supply chain risk and disruption, Retrieved from <https://www2.deloitte.com/in/en/pages/risk/articles/covid-19-managing-supply-chain-risk-and-disruption.html>. [Accessed on 10th Jan 2021].

- King, A. W. (2007), Disentangling interfirm and intrafirm causal ambiguity: a conceptual model of causal ambiguity and sustainable competitive advantage, *Academy of Management review*, 32(1), 156-178.
- King, N. (1998), Template analysis, in Symon, G. and Cassell, C. (Eds), *Qualitative Methods and Analysis in Organisational Research*, Sage, London, pp. 118-134.
- King, N. (2004), Using templates in the thematic analysis of texts, in Symon, G. and Cassell, C. (Eds), *Qualitative Methods and Analysis in Organisational Research*, Sage, London, pp. 256-270.
- King, N., & Brooks, J. M. (2017). *Template Analysis for Business and Management Students*. London: Sage.
- King, N., & Horrocks, C. (2010). *Interviews in Qualitative Research*. London: Sage.
- Kingsinger, P. & Walch, K. (2012). Living and leading in a VUCA world. Thunderbird University. Retrieved from <http://knowledge.network.thunderbird.edu/research/2012/07/09/kingsinger-walch-vuca/>.
- Kipley, D., & Lewis, A. (2009a). The scalability of H. Igor Ansoff's strategic management principles for small and medium sized firms. *Journal of Management Research*, 1(1), 1-26.
- Kipley, D., & Lewis, A. O. (2009b). Ansoff strategic success paradigm—Empirical evidence supports its success with firms competing in a turbulent environment. Why then is it absent from academic strategic management textbooks. *Organization and Management Quarterly*, 4(8), 71-88.
- Kirkwood, A., & Price, L. (2013). Examining some assumptions and limitations of research on the effects of emerging technologies for teaching and learning in higher education. *British Journal of Educational Technology*, 44(4), 536-543.
- Klammer, A., Gueldenberg, S., Kraus, S., & O'Dwyer, M. (2017). To change or not to change—antecedents and outcomes of strategic renewal in SMEs. *International Entrepreneurship and Management Journal*, 13(3), 739-756.
- Konlechner, S., & Ambrosini, V. (2019). Issues and trends in causal ambiguity research: a review and assessment. *Journal of Management*, 45(6), 2352-2386.
- Kononiuk, A. (2017). Foresight in SME companies. *Journal of Machine Construction and Maintenance-Problemy Eksploatacji*, (1), 109-115.
- Kononiuk, A., & Glińska, E. (2015). Foresight in a small enterprise. A case study. *Procedia-Social and Behavioral Sciences*, 213, 971-976.
- Kononiuk, A., Sacio-Szymańska, A., & Gáspár, J. (2017). How do companies envisage the future? Functional foresight approaches. *Engineering Management in Production and Services*, 9(4), 21-33.
- Köseoglu, M. A., & Parnell, J. (2020). The evolution of the intellectual structure of strategic management between 1980 and 2019. *Journal of Strategy and Management*.
- Kraus, S., Reiche, B. S., & Reschke, C. H. (2007). Implications of strategic planning in SMEs for international entrepreneurship research and practice. *European Research and Practice*, 32(6), 110-127.
- Kripke, S. A. (1980). *Naming and Necessity*. Blackwell, Oxford.

- Krzakiewicz, K., & Cyfert, S. (2019). Strategic orientations of the organization-entrepreneurial, market and organizational learning. *Management*, 23(1), 7-19.
- Kücher, A., Mayr, S., Mitter, C., Duller, C., & Feldbauer-Durstmüller, B. (2020). Firm age dynamics and causes of corporate bankruptcy: age dependent explanations for business failure. *Review of Managerial Science*, 14(3), 633-661.
- Kumar, K. (1989). Conducting key informant interviews in developing countries (pp. 1-40). Washington DC: Agency for International Development.
- Kumar, K., Boesso, G., Favotto, F., & Menini, A. (2012). Strategic orientation, innovation patterns and performances of SMEs and large companies. *Journal of Small Business and Enterprise Development*, 19, 132-145.
- Kunc, M. (2019), *Strategic analytics: integrating management science and strategy*, John Wiley & Sons, UK.
- Kuzel, A.J. (1999), Sampling in Qualitative Inquiry, In *Doing Qualitative Research*, B. F. Crabtree and W. L. Miller (Ed.), Sage Publications, Thousand Oaks, CA, pp. 33-45.
- Kyffin, S. & Gardien, P. (2009). Navigating the Innovation Matrix: An Approach to Design-led Innovation. *International Journal of Design*. 3. 57-69.
- Laforet, S. & Tann, J. (2006), Innovative characteristics of small manufacturing firms, *Journal of Small Business and Enterprise Development*, Vol. 13 No. 3, pp. 363-80.
- Lagunes, P., Soto, A., Zuñiga, S., & Pérez, J. C. (2016). Model for Determining the Absorption Capacity of SMES in the Manufacturing Sector. *European Scientific Journal*, ESJ, 12(34).
- Lane, P. J., Koka, B. R., & Pathak, S. (2006). The reification of absorptive capacity: A critical review and rejuvenation of the construct. *Academy of management review*, 31(4), 833-863.
- Langley, A. (1999). Strategies for theorizing from process data. *Academy of Management Review*, 24(4), 691–710.
- Langley, A., & Abdallah, C. (2011). Templates and turns in qualitative studies of strategy and management. In *Building methodological bridges*. Emerald Group Publishing Limited.
- Lankshear, C., & Knobel, M. (2004). *A handbook for teacher research*. Berkshire: Open University Press.
- Lapadat, J. C. (2000). Problematising transcription: Purpose, paradigm and quality. *Social Research Methodology*, 3(3), 203–219.
- Laskovaia, A., Marino, L., Shirokova, G., & Wales, W. (2019). Expect the unexpected: Examining the shaping role of entrepreneurial orientation on causal and effectual decision-making logic during economic crisis. *Entrepreneurship & Regional Development*, 31(5-6), 456-475.
- Latham, S., & Braun, M. (2011). Economic recessions, strategy, and performance: a synthesis. *Journal of Strategy and Management*.
- Laursen, K. & Salter, A. (2006), Open for innovation: the role of openness in explaining innovation performance among UK manufacturing firms, *Strategic Management Journal*, Vol. 27 No. 2, pp. 131-150.

- Lavie, D. (2006). Interconnected firms and the value of network resources. In *Advances in Mergers and Acquisitions*. Emerald Group Publishing Limited.
- Lawrence, K. (2013). Developing leaders in a VUCA environment. *UNC Executive Development*, 1-15.
- Lee, B., & Cassell, C. (2013). Research methods and research practice: History, themes and topics. *International Journal of Management Reviews*, 15(2), 123-131.
- Leiblein, M. J., Reuer, J. J., & Zenger, T. (2018). What makes a decision strategic? *Strategy Science*, 3(4), 558-573.
- Leitner, K. H., & Guldenberg, S. (2010). Generic strategies and firm performance in SMEs: a longitudinal study of Austrian SMEs. *Small Business Economics*, 35(2), 169-189.
- Leitner, M., Bentz, J., Lourenco, T. C., Swart, R., Allenbach, K., & Rohat, G. T. (2018). Foresight for policy & decision-makers. Work package 4-institutional strengthening. Task 4.3-promote foresight.
- Leonard, A., & Beer, S. (1994). The systems perspective: Methods and models for the future. AC/UNU Project.
- Leopoulos, V.N., K.A. Kirytopoulos, & C. Malandrakis. (2006). RM for SMEs: Tools to use and how. *Production Planning & Control* 17(3): 322–332.
- Lepak, D. P., Smith, K. G., & Taylor, M. S. (2007). Value creation and value capture: A multilevel perspective. *Academy of management review*, 32(1), 180-194.
- Lester, J. N., Cho, Y. & Lochmiller, C. R. (2020), Learning to Do Qualitative Data Analysis: A Starting Point, *Human Resource Development Review*, 19(1), pp. 94–106. doi: 10.1177/1534484320903890.
- Levie, J., & Lichtenstein, B. B. (2008). From “stages” of business growth to a dynamic states model of entrepreneurial growth and change. Hunter Centre for Entrepreneurship working paper, University of Strathclyde. UK, Glasgow.
- Levinthal, Daniel. (1992). Surviving Schumpeterian Environments: An Evolutionary Perspective. *Industrial and Corporate Change - IND CORP CHANGE*. 1. 427-443. 10.1093/icc/1.3.427.
- Levratto, N., L. Tessier & M. Zouikri (2010). The Determinants of Growth for SMEs. A Longitudinal Study of French Manufacturing Firms. [Online] Available: <http://ssrn.com/abstract=1780466> or <http://dx.doi.org/10.2139/ssrn.1780466> (15 June 2019).
- Levy, M., & Powell, P. (2004). *Strategies for Growth in SMEs: The Role of Information and Information Systems*. Elsevier.
- Liao, J., Welsch, H., & Stoica, M. (2003). Organizational absorptive capacity and responsiveness: An empirical investigation of growth-oriented SMEs. *Entrepreneurship Theory and practice*, 28(1), 63-86.
- Liao, S., Liu, Z., & Ma, C. (2019). Direct and configurational paths of open innovation and organisational agility to business model innovation in SMEs. *Technology Analysis & Strategic Management*, 31(10), 1213-1228.
- Lim, C. H., & Teoh, K. B. (2021). Factors influencing the SME business success in Malaysia. *Annals of Human Resource Management Research*, 1(1), 41-54.

- Lincoln, Y. S. (1995). Emerging criteria for quality in qualitative and interpretive research. *Qualitative inquiry*, 1(3), 275-289.
- Lincoln, Y., Lynham, S. & Guba, L. (2011), Paradigmatic controversies, contradictions, and emerging confluences revisited, in Denzin, N. and Lincoln, Y. (Eds), *The SAGE Handbook of Qualitative Research*, 4th ed., SAGE Publications, Thousand Oaks, California, CA, pp. 97-128.
- Lincoln, Y.S., & Guba, E.G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.
- Linden, A., & Fenn, J. (2003). Understanding Gartner's hype cycles. *Strategic Analysis Report No. R-20-1971*. Gartner, Inc, 88.
- Lindsay, R. M. (2015). *Developing Robust Strategy for Uncertain Times: Expanding our Concept of Management Control to Deal with Dynamic Markets*. Chartered Professional Accountants of Canada.
- Lippitt, G.L. & Schmidt, W.H. (1967). Crises in a developing organization. *Harvard Business Review*, 47, 102–112.
- Liu, H. M., & Yang, H. F. (2019). Managing network resource and organizational capabilities to create competitive advantage for SMEs in a volatile environment. *Journal of Small Business Management*, 57, 155-171.
- Lohana, S. S., Zabri, S. M., & Ahmad, K. (2018). Review on Challenges Among Small and Medium Enterprises in Malaysia. *Advanced Science Letters*, 24(5), 3260-3263.
- Lubatkin, M. H., Simsek, Z., Ling, Y., & Veiga, J. F. (2006). Ambidexterity and performance in small-to medium-sized firms: The pivotal role of top management team behavioral integration. *Journal of management*, 32(5), 646-672.
- Luzon, M. D. M., & Pasola, J. V. (2011). Ambidexterity and total quality management: Towards a research agenda. *Management Decision*, 49(6), 927-947.
- Lybaert, N. (1998). The information use in a SME: its importance and some elements of influence. *Small business economics*, 10(2), 171-191.
- Mabenge, B. K., Ngorora-Madzimure, G. P. K., & Makanyeza, C. (2020). Dimensions of innovation and their effects on the performance of small and medium enterprises: the moderating role of firm's age and size. *Journal of Small Business & Entrepreneurship*, 1-25.
- Madrid-Guijarro, A., Garcia, D., & Van Auken, H. (2009). Barriers to innovation among Spanish manufacturing SMEs. *Journal of small business management*, 47(4), 465-488.
- Madrid-Guijarro, A., García-Pérez-de-Lema, D., & Van Auken, H. (2013). An investigation of Spanish SME innovation during different economic conditions. *Journal of Small Business Management*, 51(4), 578-601.
- Mantere, S. (2008). Role expectations and middle manager strategic agency. *Journal of Management Studies*, 45(2), 294–316.
- Mantere, S., & Vaara, E. (2008). On the problem of participation in strategy: A critical discursive perspective. *Organization Science*, 19(2), 341–358.
- March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization science*, 2(1), 71-87. <http://dx.doi.org/10.1287/orsc.2.1.71>
- March, J. G. (1994). *A primer on decision making*. New York, NY: Free Press.

- Mariadoss, B. J., Chi, T., Tansuhaj, P., & Pomirleanu, N. (2016). Influences of firm orientations on sustainable supply chain management. *Journal of Business Research*, 69(9), 3406-3414.
- Marino, L. D., F. T. Lohrke, J. S. Hill, K. M. Weaver, & T. Tambunan (2008), Environmental Shocks and SME Alliance Formation Intentions in an Emerging Economy: Evidence from the Asian Financial Crisis in Indonesia, *Entrepreneurship Theory and Practice* 32 (1): 157–183. doi:10.1111/j.1540-6520.2007.00220.x.
- Marks, D., & F. Thomalla. (2017). Responses to the 2011 floods in central Thailand: Perpetuating the vulnerability of small and medium enterprises? *Natural Hazards* 87(2): 1147–1165.
- Markus, W. (2008). Talking about the future within an SME. *Corporate foresight and the potential contributions to sustainable development*. *Manag Environ Qual*, 19(2), 234-242.
- Marn, J. T. K., Hin, C. W., & Bohari, A. M. (2016). Antecedents of Strategic Planning of Small and Medium-sized Enterprises in Malaysia: The Influence of Ownership Motivations and Environmental Uncertainty. *International Review of Management and Marketing*, 6(7S), 270-276.
- Marr, J. J. (2001). The military decision-making process: making better decisions versus making decisions better. *Army Command and General Staff Coll. Fort Leavenworth KS School of Advanced Military Studies*.
- Martinet, A. C. (2010). Strategic planning, strategic management, strategic foresight: The seminal work of H. Igor Ansoff. *Technological Forecasting and Social Change*, 77(9), 1485-1487.
- Martinsuo, M. (2019). Strategic value at the front end of a radical innovation program. *Project Management Journal*, 50(4), 431-446.
- Maxwell, J.A. (2005). *Qualitative Data Analysis: An Inductive Approach*. 2nd Edition. Sage.
- May, R. C., Stewart Jr, W. H., & Sweo, R. (2000). Environmental scanning behavior in a transitional economy: evidence from Russia. *Academy of Management Journal*, 43(3), 403-427.
- Mazzarol, T (2004), *Strategic Management of Small Firms: A Proposed Framework for Entrepreneurial Ventures*, paper presented at the 17th Annual SEAANZ Conference - Entrepreneurship as the Way of the Future, Brisbane, Queensland
- McAlearney, A. S., Walker, D., Moss, A. D., & Bickell, N. A. (2016). Using Qualitative Comparative Analysis of Key Informant Interviews in Health Services Research: Enhancing a Study of Adjuvant Therapy Use in Breast Cancer Care. *Medical care*, 54(4), 400–405. <https://doi.org/10.1097/MLR.0000000000000503>
- McAvoy, J., & Butler, T. (2018). A critical realist method for applied business research. *Journal of Critical Realism*, 17(2), 160-175.
- McCann, J. E. (1991). Patterns of growth, competitive technology, and financial strategies in young ventures. *Journal of Business Venturing*, 6(3), 189-208.
- McCarthy T. M., & Golicic S. L. (2005) A Proposal for Case Study Methodology in Supply Chain Integration Research. In H. Kotzab, S. Seuring, M. Müller, & G. Reiner (Eds.), *Research Methodologies in Supply Chain Management* (pp. 251- 266). Physica-Verlag HD.

- McFadyen, E. (1983). How to achieve successful regeneration: Burton, Debenhams and Tesco reveal all (or nearly all). *Retail and Distribution Management*.
- McIver, D., & Lengnick-Hall, C. (2018). The causal ambiguity paradox: Deliberate actions under causal ambiguity. *Strategic Organization*, 16(3), 304-322.
- McKenny, A. F., Short, J. C., Ketchen Jr, D. J., Payne, G. T., & Moss, T. W. (2018). Strategic entrepreneurial orientation: Configurations, performance, and the effects of industry and time. *Strategic Entrepreneurship Journal*, 12(4), 504-521.
- McKeown, K. R. (1985). Discourse strategies for generating natural-language text. *Artificial intelligence*, 27(1), 1-41.
- McKinley, W., Zhao, J., & Rust, K.G. (2000). A Sociocognitive Interpretation of Organizational Downsizing. *Academy of Management Review*, 25, 227-243
- McKinsey (2020), Which small businesses are most vulnerable to COVID-19--and when, <https://www.mckinsey.com/featured-insights/americas/which-small-businesses-are-most-vulnerable-to-covid-19-and-when> (accessed on 28 June 2020).
- McMahon, R. G. (1998). Stage models of SME growth reconsidered. *Small Enterprise Research*, 6(2), 20-35.
- McNiff, J. (2016). *You and your action research project*. Routledge.
- Mellahi, K., & Wilkinson, A. (2004). Organizational failure: A critique of recent research and a proposed integrative framework. *International Journal of Management Reviews*, 5: 21–41.
- Menkhoff, T., Loh, B. & Kay, L. (2003), Issues and Challenges of Corporate Change Initiatives in Singapore's Small Business Sector. *Asian Academy of Management Journal*. 8, (1), 49-64. Research Collection Lee Kong Chian School Of Business.
- Meredith, J. (1998), Building operations management theory through case and field research, *Journal of Operations Management*, Vol. 16, pp. 441-54.
- Meredith, J. R., Raturi, A., Amoako-Gyampah, K., & Kaplan, B. (1989). Alternative Research Paradigms in Operations. *Journal of Operations Management*, 8(4), 297-326.
- Mero-Jaffe, I. (2011). Is that what I said? Interview transcript approval by participants: an aspect of ethics in qualitative research. *International journal of qualitative methods*, 10(3), 231-247.
- Merriam, S. B. (1998), *Qualitative research and case study applications in education*. San Francisco, CA: Jossey-Bass.
- Merriam, S. B., & Tisdell, E. J. (2015). *Qualitative research: A guide to design and implementation*. John Wiley & Sons.
- Mertens, D. M. (2008). *Transformative research and evaluation*. Guilford press.
- Merzlikina, G. S., & Kozhanova, T. E. (2020). Strategic Change in the Enterprise: Foresight and Management. In *IOP Conference Series: Earth and Environmental Science* (Vol. 459, No. 6, p. 062059). IOP Publishing.
- Meyer, T., Heiko, A., & Hartmann, E. (2020). How Organizations Prepare for the Future: A Comparative Study of Firm Size and Industry. *IEEE Transactions on Engineering Management*.

- Mihajlović, I., & Stojanović, A. (2019). How to address and understand the failure of SMEs: framework and factors. How to prevent SMEs failure (Action based on comparative analysis in Visegrad countries and Serbia). Technical Faculty in Bor. Bor, Serbia, 663-694.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. sage.
- Miles, R. (2015). Complexity, representation and practice: Case study as method and methodology. *Issues in Educational Research*, 25(3), 309-318.
- Miles, R. E., Snow, C. C., Meyer, A. D., & Coleman Jr, H. J. (1978). Organizational strategy, structure, and process. *Academy of management review*, 3(3), 546-562.
- Miles, R.E. & Snow, C.C. (1978), *Organizational Strategy, Structure, and Process*, McGraw-Hill.
- Miller, D. (1993). The architecture of simplicity. *Academy of Management Review*, 18(1), 116-138.
- Miller, D., & Friesen, P. H. (1984). A longitudinal study of the corporate life cycle. *Management science*, 30(10), 1161-1183.
- Miller, K., & Waller, H. (2003). Scenarios, real options, and integrated risk management. *Long Range Planning*, 36(1), 93-107.
- Miller, S., Hickson, D. & Wilson D (2008) From strategy to action: involvement and influence in top level decisions. *Long Range Plan* 41(6):606-628
- Minatogawa, V., Franco, M., Durán, O., Quadros, R., Holgado, M., & Batocchio, A. (2020). Carving out new business models in a small company through contextual ambidexterity: The case of a sustainable company. *Sustainability*, 12(6), 2337.
- Mingers, J. (2006). A critique of statistical modelling in management science from a critical realist perspective: Its role within multi methodology. *Journal Operational Research Society*, 55(2), 202-219.
- Mingers, J. (2015). Helping business schools engage with real problems: The contribution of critical realism and systems thinking. *European Journal of Operational Research*, 242(1), 316-331.
- Mintz, A., & DeRouen Jr, K. (2010). The Rational Actor Model. In *Understanding Foreign Policy Decision Making* (pp. 57-67). Cambridge: Cambridge University Press. doi:10.1017/CBO9780511757761.004
- Mintzberg, H. (1978), *Patterns in Strategy Formation*, *Management Science*, Vol. 24, pp. 934-948.
- Mintzberg, H. (1994), *The Rise and Fall of Strategic Planning*, The Free Press, New York, NY.
- Mintzberg, H., Raisinghani, D., & Theoret, A. (1976). The structure of "unstructured" decision processes. *Administrative science quarterly*, 246-275.
- Mittal, S., Khan, M. A., Romero, D., & Wuest, T. (2018). A critical review of smart manufacturing & Industry 4.0 maturity models: Implications for small and medium-sized enterprises (SMEs). *Journal of manufacturing systems*, 49, 194-214.

- Moeuf, A., Lamouri, S., Pellerin, R., Tamayo-Giraldo, S., Tobon-Valencia, E., & Eburdy, R. (2020). Identification of critical success factors, risks and opportunities of Industry 4.0 in SMEs. *International Journal of Production Research*, 58(5), 1384-1400.
- Mohannak, K. (2007), Innovation networks and capability building in the Australian high-technology SMEs, *European Journal of Innovation Management*, Vol. 10 No. 2, pp. 236-51.
- Mokhtar, S.S., Yusoff, R.Z., & Ahmad, A. (2014), Key elements of market orientation on Malaysian SMEs performance. *International Journal of Business and Society*, 15(1), 49.
- Moore, E., & Llompart, J. (2017). Collecting, Transcribing, Analyzing and Presenting Plurilingual Interactional Data. Research-publishing. net.
- Moretti, D. M., Alves, F. C., & Bomtempo, J. V. (2020). Entrepreneurial-oriented strategic renewal in a Brazilian SME: a case study. *Journal of Small Business and Enterprise Development*.
- Morgan, G. (2007) *Images of organization*, Thousand Oaks: Sage
- Morgan, G. (2011). Reflections on images of organization and its implications for organization and environment. *Organization & Environment*, 24(4), 459-478.
- Morgan, S.J. & Symon, G. (2004), Electronic interviews in organizational research, in Cassell, C. and Symon, G. (Eds), *Essential Guide to Qualitative Methods in Organizational Research*, Sage, London, pp. 23-33.
- Mosakowski, E. (1997). Strategy making under causal ambiguity: Conceptual issues and empirical evidence. *Organization Science*, 8(4), 414-442.
- Mosey, S., Clare, J. & Woodcock, D. (2002), Innovation decision making in British manufacturing SMEs, *Integrated Manufacturing Systems*, Vol. 13 No. 3, pp. 176-83.
- Muda, S., & Rahman, M. R. C. A. (2016). Human capital in SMEs life cycle perspective. *Procedia Economics and Finance*, 35, 683-689.
- Mugler, J. (2004). The configuration approach to the strategic management of small and medium-sized enterprises. In *Science in Engineering, Economics and Education*, Budapest Tech International Jubilee Conference, Proceedingband. Budapest (pp. 247-256).
- Mukherjee, N., Zabala, A., Huge, J., Nyumba, T. O., Adem Esmail, B., & Sutherland, W. J. (2018). Comparison of techniques for eliciting views and judgements in decision - making. *Methods in Ecology and Evolution*, 9(1), 54-63.
- Müller, J. M., Buliga, O., & Voigt, K. I. (2020). The role of absorptive capacity and innovation strategy in the design of industry 4.0 business Models-A comparison between SMEs and large enterprises. *European Management Journal*.
- Muñoz, P. (2018). A cognitive map of sustainable decision-making in entrepreneurship. *International Journal of Entrepreneurial Behavior & Research*.
- Mustafa, N., Nakov, L., & Islami, X. (2019). The impact of organizational changes on increasing SMEs competitiveness. *Acta Universitatis Danubius. (Economica)*, 15(2), 93-114.
- Myers, M. D., & Newman, M. (2007). The qualitative interview in IS research: Examining the craft. *Information and organization*, 17(1), 2-26.

- Naderifar, M., Goli, H. & Ghaljaei, F. (2017). Snowball Sampling: A Purposeful Method of Sampling in Qualitative Research. *Strides in Development of Medical Education*. In Press. 10.5812/sdme.67670.
- Namey, E., Guest, G., Thairu, L., & Johnson, L. (2008). Data reduction techniques for large qualitative data sets. *Handbook for team-based qualitative research*, 2(1), 137-161.
- Nangia, M., & Mohsin, F. (2020). Identifying VUCA factors in a pandemic era - a framework focused on Indian IT industry, *Journal of Critical Reviews*, 7(7), 931-936.
- Nascimento, L. D. S., & Steinbruch, F. K. (2019). The interviews were transcribed, but how? Reflections on management research. *RAUSP Management Journal*, 54(4), 413-429.
- Nasir, W. M. N. B. W. M., Al Mamun, A., & Breen, J. (2017). Strategic orientation and performance of SMEs in Malaysia. *SAGE Open*, 7(2), 2158244017712768.
- Nedzinskas, Š., Pundzienė, A., Buožiūtė-Rafanavičienė, S., & Pilkienė, M. (2013). The impact of dynamic capabilities on SME performance in a volatile environment as moderated by organizational inertia. *Baltic Journal of Management*.
- Negulescu, O. H. (2019). Complexity and flexibility in strategic management. *Review of General Management*, 29(2), 55-67.
- Nes, L. S., & Segerstrom, S. C. (2006). Dispositional Optimism and Coping: A Meta-Analytic Review. *Personality and Social Psychology Review*, 10(3), 235-251.
- Netz, J., Svensson, M., & Brundin, E. (2020). Business disruptions and affective reactions: A strategy-as-practice perspective on fast strategic decision making. *Long range planning*, 53(5), 101910.
- Nicholas, J., Ledwith, A., & Bessant, J. (2013). Reframing the search space for radical innovation. *Research-Technology Management*, 56(2), 27-35.
- Nichols, F. (2005). Strategic decision making: Commitment to strategic action. Retrieved March 7, 2021, from [http://www.nickols.us/strategic\\_decision\\_making.pdf](http://www.nickols.us/strategic_decision_making.pdf)
- Niemimaa, M., Järveläinen, J., Heikkilä, M., & Heikkilä, J. (2019). Business continuity of business models: Evaluating the resilience of business models for contingencies. *International Journal of Information Management*, 49, 208-216.
- O'Connor, G. C., & McDermott, C. M. (2004). The human side of radical innovation. *Journal of engineering and technology management*, 21(1-2), 11-30.
- O'Reilly III, C. A., & Tushman, M. L. (2011). How Managers Explore and Exploit. *California Management Review*, 53(4).
- Obeidat, B. Y. (2016). The effect of strategic orientation on organizational performance: The mediating role of innovation. *International Journal of Communications, Network and System Sciences*, 9(11), 478-505.
- Ogarcă, R. (2010). Features of the decision-making in SMEs. *Annals of the University of Craiova, Economic Sciences Series*, 3.
- O'Leary, D. E. (2008). Gartner's hype cycle and information system research issues. *International Journal of Accounting Information Systems*, 9(4), 240-252.
- Omar, A. R. C., Ishak, S., & Jusoh, M. A. (2020). The impact of Covid-19 Movement Control Order on SMEs' businesses and survival strategies. *Geografia-Malaysian Journal of Society and Space*, 16(2).

- Omerzel, D. G. (2010). The impact of knowledge management on SME growth and profitability: A structural equation modelling study. *African journal of business management*, 4(16), 3417-3432.
- Önday, Ö. (2018). The relationship between concepts of rational, natural and open systems: Managing organizations today. *Business and Management*, 10(1).
- Ong, J. W. (2015), Evaluating the Sustainable Practices of SME Master Plan and Recommendations for Improvement, *International Academic Research Journal of Social Science*, 1(2) Page 240-247
- Oparanma, A. O., & Wechie, I. (2014). Crisis management processes to ensure effective and continuous performance. *Journal of Business and Management*, 16(8), 01-04.
- Opdenakker, R. (2006), Advantages and disadvantages of four interview techniques in qualitative research, *Forum: Qualitative Social Research (Online Journal)*, Vol. 7 No. 4, available at: [www.qualitative-research.net/index.php/fqs/article/viewArticle/175/391](http://www.qualitative-research.net/index.php/fqs/article/viewArticle/175/391) (accessed 10 July 2011).
- O'Regan, N., & Ghobadian, A. (2007). Formal strategic planning: annual raindance or wheel of success? *Strategic Change*, 16(1-2), 11-22.
- O'Reilly, C. A., & Tushman, M. L. (2004). The ambidextrous organization. *Harvard business review*, 82(4), 74-83.
- Ose, S. O. (2016). Using Excel and Word to structure qualitative data. *Journal of Applied Social Science*, 10(2), 147-162.
- Ouakouak, M. L. (2018). Does a strategic planning process that combines rational and adaptive characteristics pay off? Evidence from European firms. *Australian Journal of Management*, 43(2), 328-349.
- Owolabi, S. A., & Makinde, O. G. (2012). The effects of strategic planning on corporate performance in university education: A study of Babcock University. *Kuwait Chapter of the Arabian Journal of Business and Management Review*, 2(4), 27.

## P

- Pal, R., Torstensson, H., & Mattila, H. (2014), Antecedents of organizational resilience in economic crises—an empirical study of Swedish textile and clothing SMEs, *International Journal of Production Economics*, Vol. 147, No. B, pp. 410-428.
- Palanimally, Y. R., Ramasamy, M., & Mohamad, Z. Z. (2020). Factors That Influence The Growth Performance of Small and Medium Enterprises (SMEs) In Malaysia. *International Journal of Modern Trends in Business Research (IJMTBR)*, 3 (13), 24 - 35.
- Paliokaitė, A., & Pačėsa, N. (2015). The relationship between organisational foresight and organisational ambidexterity. *Technological Forecasting and Social Change*, 101, 165-181.
- Papadakis, V. M., & Barwise, P. (1997). Research on strategic decisions: where do we go from here? In *Strategic decisions* (pp. 289-302). Springer, Boston, MA.
- Papadakis, V. M., Lioukas, S., & Chambers, D. (1998). Strategic decision-making processes: the role of management and context. *Strategic management journal*, 19(2), 115-147.

- Papadakis, V., Thanos, I.C., and Barwise, P. (2010) Research on strategic decisions: taking stock and looking ahead. In: Nutt, P.C. and Wilson, D.C. (eds.) *Handbook of Decision Making*. John Wiley: Chichester, UK, pp. 31-70. ISBN 9781405161350
- Paraskevas, A., & Altinay, L. (2013). Signal detection as the first line of defence in tourism crisis management. *Tourism Management*, 34, 158-171.
- Parida, V., Westerberg, M. & Frishammar, J. (2012), Inbound open innovation activities in high-tech SMEs: the impact on innovation performance, *Journal of Small Business Management*, Vol. 50 No. 2, pp. 283-309.
- Parker, H., & Ameen, K. (2018). The role of resilience capabilities in shaping how firms respond to disruptions. *Journal of Business Research*, 88, 535-541.
- Parnell, J. A., Lester, D. L., Long, Z., & Köseoglu, M. A. (2012). How environmental uncertainty affects the link between business strategy and performance in SMEs. *Management Decision*.
- Pasanen, M. (2011). Strategic management tools and techniques in SMEs. In *Society of Interdisciplinary Business Research (SIBR) 2011 Conference on Interdisciplinary Business Research*.
- Pati, R. K., Nandakumar, M. K., Ghobadian, A., Ireland, R. D., & O'Regan, N. (2018). Business model design–performance relationship under external and internal contingencies: Evidence from SMEs in an emerging economy. *Long Range Planning*, 51(5), 750-769.
- Patton, M.Q. (2002). *Qualitative evaluation methods* (3rd ed.). Thousand Oaks: Sage.
- Pearse, N. J. (2017). Change management in a VUCA world. *Visionary leadership in a turbulent world: Thriving in the new VUCA context*, 81-105.
- Perecman, E., & Curran, S. R. (2006). *A handbook for social sciences field research: Essay & bibliographic sources on research design and methods*. Thousand Oaks, CA: Sage.
- Perényi, Á., & Yukhanaev, A. (2016). Testing relationships between firm size and perceptions of growth and profitability: An investigation into the practices of Australian ICT SMEs. *Journal of Management & Organization*, 22(5), 680-701.
- Perren, L., & Ram, M. (2004). Case-study method in small business and entrepreneurial research: mapping boundaries and perspectives. *International small business journal*, 22(1), 83-101.
- Pett, T. L., Francis, J., & Wolff, J. A. (2019). The interplay of strategic orientations and their influence on SME performance. *Journal of small business strategy*, 29(3), 46-59.
- Pettigrew, A. (2011). Scholarship with impact. *British Journal of Management*, 22, 347–354.
- Phaal, R., Farrukh, C., & Probert, D. (2010). *Roadmapping for strategy and innovation. Aligning technology and markets in a dynamic world*. University of Cambridge.
- Phadnis, S., Caplice, C., & Sheffi, Y. (2016). How scenario planning influences strategic decisions. *MIT Sloan Management Review*, 57(4), 24.
- Phetphongphan, W., Ussahawanitchakit, P., & Pratoom, K. (2018). Strategic Renewal Capability and Firm Sustainability: An Empirical Investigation of Software Businesses in Thailand. *Journal of Accountancy and Management*, 10(3), 51-68.

- Phillips-Wren, G. & Adya, M. (2020), Decision making under stress: the role of information overload, time pressure, complexity, and uncertainty, *Journal of Decision Systems*, DOI: 10.1080/12460125.2020.1768680
- Poister, T. H. (2004). *Strategic Planning and Decision Making in State Departments of Transportation* (Vol. 326). Transportation Research Board.
- Poland, B. D. (2002). Transcription quality. In J. Gubrium & J. A. Holstein (Eds.), *Handbook of interview research: Context and method* (pp. 629-650). Thousand Oaks: Sage
- Popper, R. (2008). Foresight methodology. *The handbook of technology foresight*, 44-88.
- Popper, R., Keenan, M., Miles, I., Butter, M., & Sainz, G. (2007). *Global Mapping Report 2007*. European Foresight Monitoring Network report to the EC.
- Porter, M. E. (2008). The five competitive forces that shape strategy. *Harvard business review*, 86(1), 78.
- Porter, M.E. (1980) *Competitive Strategy*, Free Press, New York.
- Power, D. J., & Mitra, A. (2016). Reducing “Bad” Strategic Business Decisions. *Drake Management Review*, 5(1/2), 15-21.
- Pranjal, P., & Sarkar, S. (2020). Business Not as Usual: Recovery and Future Preparedness of B2B Manufacturing Firms in a Post-COVID World. Available at SSRN 3626182.
- Price L, Rae D & Cini V, (2013) SME Perceptions of and Responses to the Recession, *Journal of Small Business and Enterprise Development*, 20(3), pp. 484-502.
- Putñš, T. J., & Sauka, A. (2020). Why does entrepreneurial orientation affect company performance? *Strategic Entrepreneurship Journal*, 14(4), 711-735.
- Qehaja, A. B., & Kutllovci, E. (2020). Strategy Tools in Use: New Empirical Insights from the Strategy-as-Practice Perspective. *Management: Journal of Contemporary Management Issues*, 25(1), 145.
- Qu, S. Q., & Dumay, J. (2011). The qualitative research interview. *Qualitative research in accounting & management*.
- Radomska, J., & Kozyra, C. (2020). Awareness of strategy execution barriers in decision-making process: moderated mediation analysis. *Decision*, 1-18.
- Rafli, A. & Ishak, S. & Jusoh, M. (2020). The impact of Covid-19 Movement Control Order on SMEs’ businesses and survival strategies. *Malaysian Journal of Society and Space*. 16. 10.17576/geo-2020-1602-11.
- Raisch, S., & Birkinshaw, J. (2008). Organizational ambidexterity: Antecedents, outcomes, and moderators. *Journal of Management*, 34(3), 375-409. <http://dx.doi.org/10.1177/0149206308316058>
- Randhawa, K., Wilden, R., & Gudergan, S. (2020). How to innovate toward an ambidextrous business model? The role of dynamic capabilities and market orientation. *Journal of Business Research*.
- Rastrollo-Horrillo, M. A., & Rivero, D. (2019). Destination social capital and innovation in SMEs tourism firms: an empirical analysis in an adverse socio-economic context. *Journal of Sustainable Tourism*, 27(10), 1572-1590.

- Raymond, L. & St-Pierre, J. (2010), Strategic capabilities for product innovation in SMEs: a gestalts perspective, *International Journal of Entrepreneurship and Innovation*, Vol. 11 No. 3, pp. 209-24.
- Raymond, L., & Croteau, A. M. (2006). Enabling the strategic development of SMEs through advanced manufacturing systems: A configurational perspective. *Industrial management & data systems*.
- Reid, D. M. (1989). Operationalizing strategic planning. *Strategic Management Journal*, 10(6), 553-567.
- Reynolds, M., & Holwell, S. (Eds.). (2010). *Systems approaches to managing change*. London: Springer.
- Rezaei Soufi, H., Torabi, S. A., & Sahebjamnia, N. (2019). Developing a novel quantitative framework for business continuity planning. *International Journal of Production Research*, 57(3), 779-800.
- Richards, T. & Richards, L. (1998). Using Computers in Qualitative Research. In Norman K. Denzin & Yvonna S. Lincoln (Eds.), *Collecting and Interpreting Qualitative Materials* (pp. 211-245). California: Sage.
- Richards, T., & Richards, L. (1995). Using hierarchical categories in qualitative data analysis. *Computer-aided qualitative data analysis: Theory, methods, and practice*, 80-95.
- Richman, W., Keisler, S., Weisband, S., & Drasgow, F. (1999). A meta-analytic study of social desirability distortion in computer-administered questionnaires, traditional questionnaires, and interviews. *Journal of Applied Psychology*, 84(5), 754-775.
- Ritchie, B. W. (2009). *Crisis and disaster management for tourism*. Channel View Publications.
- Ritchie, J., Lewis, J., Elam, G., Tennant, R., & Rahim, N. (2014). Designing and selecting samples. In J. Ritchie, J. Lewis, C. McNaughton Nicholls & R. Ormston (Eds.) *Qualitative research practice: A guide for social science students and researchers* (2nd ed). (pp. 111–146). London: Sage.
- Roberts, K. A., & Wilson, R. W. (2002). ICT and the research process: Issues around the compatibility of technology with qualitative data analysis. In *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research* (Vol. 3, No. 2).
- Roberts, K. H., Stout, S. K., & Halpern, J. J. (1994). Decision dynamics in two high reliability military organizations. *Management science*, 40(5), 614-624.
- Roberts, P., & Priest, H. (2006). Reliability and validity in research. *Nursing standard*, 20(44), 41-46.
- Roberts, P., & Sykes, H. (Eds.). (2000). *Urban regeneration: a handbook*. Sage.
- Robinson, O. C. (2014). Sampling in interview-based qualitative research: A theoretical and practical guide. *Qualitative research in psychology*, 11(1), 25-41.
- Robinson, R. B., & Pearce, J.A. (1984). Research Thrusts in Small Firm, Strategic Planning. *Academy of Management Review* 9: 128-137.
- Rohrbeck, R. (2010), *Corporate Foresight: Towards a Maturity Model for the Future Orientation of a Firm*. Physica-Verlag, Springer, Heidelberg.

- Rohrbeck, R., & Schwarz, J. O. (2013). The value contribution of strategic foresight: Insights from an empirical study of large European companies. *Technological Forecasting and Social Change*, 80(8), 1593-1606.
- Rohrbeck, R., Battistella, C., & Huizingh, E. (2015). Corporate foresight: An emerging field with a rich tradition. *Technological Forecasting and Social Change*, 101, 1-9.
- Rohrbeck, R., Etingue Kum, M., Jissink, T., & Gordon, A. V. (2018). Corporate Foresight Benchmarking Report 2018: How leading firms build a superior position in markets of the future. Tymen and Gordon, Adam V., Corporate Foresight Benchmarking Report.
- Roller, M. R., & Lavrakas, P. J. (2015). *Applied qualitative research design: A total quality framework approach*. Guilford Publications.
- Ropega, J. (2011). The reasons and symptoms of failure in SME. *International Advances in Economic Research*, 17(4), 476-483.
- Rosemann, M., & De Bruin, T. (2005). Application of a holistic model for determining BPM maturity. *BP Trends*, 2, 1-21.
- Rothaermel, F. T. (2012). *Strategic Management: Concepts and Cases*. McGraw-Hill/Irwin, p. 5
- Rubin, H. J., & Rubin, I. S. (2005). *Qualitative interviewing: The art of hearing data* (2nd ed.). Thousand Oaks, CA: Sage.
- Ruff, F. (2006). Corporate foresight: integrating the future business environment into innovation and strategy. *International Journal of Technology Management*, 34(3-4), 278-295.
- Rumelt, R. (2011). *Good strategy/bad strategy: The difference and why it matters*. New York, NY: Crown Business.
- Safar, L., Sopko, J., Bednar, S., & Poklemba, R. (2018). Concept of SME business model for industry 4.0 environment. *TEM Journal*, 7(3), 626.
- Saffo, P. (2007). Six rules for effective forecasting. *Harvard business review*, 85(7/8), 122.
- Sage, A.P. (1992) *Systems Engineering*. John Wiley and Sons, Inc., New York, NY, USA.
- Saldaña, J. (2013). *The coding manual for qualitative researchers*. Thousand Oaks, CA: Sage.
- Saleh, A. S. & Ndubisi, N. O. (2006). An evaluation of SME development in Malaysia. *International Review of Business Research Papers*, 2(1), 1-14.
- Salles, M. (2006): Decision making in SMEs and information requirements for competitive intelligence, *Production Planning & Control: The Management of Operations*, 17:3, 229-237
- Samsudin, Z. & Ismail, M. D. (2019). The Concept of Theory of Dynamic Capabilities in Changing Environment. *International Journal of Academic Research in Business and Social Sciences*, 9(6), 1071–1078.
- Sannajust, A. (2014). Impact of the world financial crisis to SMEs: The determinants of bank loan rejection in Europe and USA (IPAG Working Paper No. 2014-327).
- Sarasvathy, S. D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of management Review*, 26(2), 243-263.

- Saritas, O. (2013). Systemic foresight methodology. In Science, technology and innovation policy for the future (pp. 83-117). Springer, Berlin, Heidelberg.
- Saritas, O., & Nugroho, Y. (2012). Mapping issues and envisaging futures: An evolutionary scenario approach. *Technological Forecasting and Social Change*, 79(3), 509-529.
- Sarpong, D. & Meissner, D. (2018) Special issue on ‘corporate foresight and innovation management’, *Technology Analysis & Strategic Management*, 30:6, 625-632, DOI: 10.1080/09537325.2018.1463934
- Sarpong, D., & Maclean, M. (2014). Unpacking strategic foresight: A practice approach. *Scandinavian Journal of Management*, 30(1), 16-26.
- Sarpong, D., Maclean, M. & Davies, C. (2013a). A matter of foresight: How practices enable (or impede) organizational foresightfulness. *European Management Journal*, 31(6): 613-625.
- Sarpong, D., Maclean, M., & Alexander, E. (2013b). Organizing strategic foresight: A contextual practice of ‘way finding’. *Futures*, 53, 33-41.
- Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2017). Saturation in qualitative research: exploring its conceptualization and operationalization. *Quality and Quantity*, doi: 10.1007/s11135-017-0574-8
- Saunders, M., Lewis, P. & Thornhill, A. (2012). *Research Methods for Business Students*. Harlow: Pearson.
- Saunila, M. (2019). Innovation capability in SMEs: A systematic review of the literature. *Journal of Innovation & Knowledge*. 5. 10.1016/j.jik.2019.11.002.
- Saunila, M., (2014). Innovation capability for SME success: perspectives of financial and operational performance. *Journal of Advances in Management Research*, 11(2), 163–175.
- Savioz, P., & Blum, M. (2002). Strategic forecast tool for SMEs: how the opportunity landscape interacts with business strategy to anticipate technological trends. *Technovation*, 22(2), 91-100.
- Schendel, D., & Hofer, C. (1979). *Strategic Management: A New View of Business Policy and Planning*. Boston: MA: Little, Brown.
- Schilke, O. (2014). Second-Order Dynamic Capabilities: How Do They Matter? *Academy of Management Perspectives*. 28. 10.5465/amp.2013.0093.
- Schmitt, A., Raisch, S., & Volberda, H. W. (2018). Strategic renewal: Past research, theoretical tensions and future challenges. *International Journal of Management Reviews*, 20(1), 81-98.
- Schneider, M., & Somers, M. (2006). Organizations as complex adaptive systems: Implications of Complexity Theory for leadership research. *The Leadership Quarterly*, 17(4), 351–365.
- Schoemaker, P. J. (1995). Scenario planning: a tool for strategic thinking. *Sloan management review*, 36(2), 25-50.
- Schumpeter, J.A., 1934 (2008), *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest and the Business Cycle*, translated from the German by Redvers Opie, New Brunswick (U.S.A) and London (U.K.): Transaction Publishers.

- Schwab, K. (2016), *The Fourth Industrial Revolution*, World Economic Forum, Geneva, Switzerland.
- Schwab, L., Gold, S., Kunz, N., & Reiner, G. (2017). Sustainable business growth: exploring operations decision-making. *Journal of Global Responsibility*, 8(1), 83-95.
- Schwandt, T. A. (2005). The centrality of practice to evaluation. *American Journal of Evaluation*, 26(1), 95-105.
- Schwartz, S. (1994). The Fallacy of the Ecological Fallacy: The Potential Misuse of a Concept and the Consequences. *American journal of public health*. 84. 819-24. 10.2105/AJPH.84.5.819.
- Schwarz, J.O. (2007), Assessing future disorders in organizations: implications for diagnosing and treating schizophrenic, depressed or paranoid organizations. *Foresight* 9(2):15–26
- Schweiger, S. A., Stettler, T. R., Baldauf, A., & Zamudio, C. (2019). The complementarity of strategic orientations: A meta-analytic synthesis and theory extension. *Strategic Management Journal*, 40(11), 1822-1851.
- Scott, M. & R. Bruce (1987). Five Stages of Growth in Small Business. *Long Range Planning*, 20(3), 45-52.
- Sedgwick, P. (2014). Unit of observation versus unit of analysis. *BMJ* (online). 348. g3840. 10.1136/bmj.g3840.
- Senaratne, C., & Wang, C. L. (2018). Organisational ambidexterity in UK high-tech SMEs: An exploratory study of key drivers and barriers. *Journal of Small Business and Enterprise Development*.
- Senivongse, C., Bennet, A., & Mariano, S. (2019). Clarifying absorptive capacity and dynamic capabilities dilemma in high dynamic market IT SMEs. *VINE Journal of Information and Knowledge Management Systems*.
- Seymour, W.S. (2001), In the flesh or online? Exploring qualitative research methodologies, *Qualitative Research*, Vol. 1 No. 2, pp. 147-68.
- Shah, H. A., Yasir, M., Majid, A., & Javed, A. (2019). Impact of networking capability on organizational survival of SMEs: Mediating role of strategic renewal. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 13(3), 559-580.
- Shah, H.A., Yasir, M., Majid, A., Yasir, M. & Javed, A. (2020), Promoting strategic performance through strategic orientation and strategic renewal: A moderated mediation model, *Management Decision*, Vol. 58 No. 2, pp. 376-392.
- Shahri, M. H., & Sarvestani, M. N. (2020). Business model innovation as a turnaround strategy. *Journal of Strategy and Management*. Vol. 13 No. 2, pp. 241-253.
- Shahzad, F., Lu, J., & Fareed, Z. (2019). Does firm life cycle impact corporate risk taking and performance? *Journal of Multinational Financial Management*, 51, 23-44.
- Sharma, N. (2020), COVID-19: Challenges and Opportunities for Small and Medium Enterprises (SMEs). Available at SSRN: <https://ssrn.com/abstract=3650473> or <http://dx.doi.org/10.2139/ssrn.3650473>
- Sharpe, B., Hodgson, A., Leicester, G., Lyon, A., & Fazey, I. (2016). Three horizons: a pathways practice for transformation. *Ecology and Society*, 21(2).

- Shepherd, D., & Woods, C. (2014). Academic entrepreneurship: Exploring resistive tension. In *Academic entrepreneurship: Creating an entrepreneurial ecosystem*. Emerald Group Publishing Limited.
- Shrivastava, P., & Grant, J. H. (1985). Empirically derived models of strategic decision-making processes. *Strategic management journal*, 6(2), 97-113.
- Sianipar, C. P. M., Yudoko, G., Adhiutama, A., & Dowaki, K. (2013). Community empowerment through appropriate technology: Sustaining the sustainable development. *Procedia Environmental Sciences*, 17, 1007-1016.
- Sim, J., Saunders, B., Waterfield, J., & Kingstone, T. (2018). Can sample size in qualitative research be determined a priori? *International Journal of Social Research Methodology*, 21(5), 619-634.
- Singer, J. (1982). Variables, Indicators, and Data: The Measurement Problem in Macropolitical Research. *Social Science History*, 6(2), 181-217. doi:10.2307/1171105
- Slaughter, R. A. (1990). The foresight principle. *Futures*, 22(8), 801-819.
- Slaughter, R. A. (1997). Developing and applying strategic foresight. *ABN Report*, 5(10), 13-27.
- Smallbone D, North D & Kalantardis C, (1999) Adapting to Peripherality: A Study of Small Rural Manufacturing Firms in Northern England, *Entrepreneurship & Regional Development*, 11(2), pp. 109-127.
- Snowden, D. J. & Boone, M. E. (2007). A Leader's Framework for Decision Making, *Harvard Business Review*. 85 (11): 68–76. PMID 18159787
- Sollosy, M., Guidice, R. M., & Parboteeah, K. P. (2019). Miles and Snow's strategic typology redux through the lens of ambidexterity. *International Journal of Organizational Analysis*.
- Somekh, B., & Zeichner, K. (2009). Action research for educational reform: remodelling action research theories and practices in local contexts. *Educational Action Research*, 17(1), 5-21. <http://dx.doi.org/10.1080/09650790802667402>
- Sourkouhi, Z. K., Keivani, F. S., Almasi, M. R., Bayat, M., & Makouei, S. (2013). Strategic management; concepts, benefits and process. *IOSR Journal of Business and Management*, 13(3), 61-64.
- Spithoven, A., Vanhaverbeke, W. & Roijakkers, N. (2013), Open innovation practices in SMEs and large enterprises, *Small Business Economics*, Vol. 41 No. 3, pp. 537-562.
- Stablein, R.E. & Frost, P.J. (2002). *Renewing Research Practice*. Stanford, CA: Stanford University Press.
- Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: SAGE Publications
- Stake, R. E. (2013). *Multiple case study analysis*. Guilford press.
- Stake, R.E. (2005). Case Study. In N.K. Denzin and Y.S. Lincoln (Editions), *Handbook of Qualitative Research*. Thousand Oaks, CA: Sage, pg. 236-447.
- Stone JH, (1975) Small Business Management in Recession, *Journal of Small Business Management*, 13(4), pp. 1-4.
- Storey, D. (1994). *Understanding the Small Business Sector*. International Thompson Business Press, London.

- Straková, J., & Talíř, M. (2020). Strategic Management and Decision Making of Small and Medium-Sized Enterprises in the Czech Republic. In SHS Web of Conferences (Vol. 73, p. 02005). EDP Sciences.
- Strandholm, K., & Kumar, K. (2003). Differences in environmental scanning activities between large and small organizations: the advantage of size. *Journal of American Academy of Business, Cambridge*, 3(1-2), 416-416.
- Strauss A.L. (1987) *Qualitative Analysis for Social Scientists*. Cambridge University Press, Cambridge, MA, USA.
- Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Grounded theory procedures and techniques* (2nd ed.). Thousand Oaks, CA: Sage.
- Strawn, G. (2021), Open Science and the Hype Cycle, *Data Intelligence*, 3 (1): 88–94. doi: [https://doi.org/10.1162/dint\\_a\\_00081](https://doi.org/10.1162/dint_a_00081)
- Sturges, J.E. & Hanrahan, K.J. (2004), Comparing telephone and face-to-face qualitative interviewing: a research note, *Qualitative Research*, Vol. 4 No. 1, pp. 107-18.
- Stuti, K. (2005). *Overcoming barriers to innovation for Indian SMEs*. Ministry of Small-Scale Industries, New Delhi, India.
- Sufi, T. & Lyons, H. (2003). Mission statements exposed. *International Journal of Contemporary Hospitality Management*. 15. 255-262. 10.1108/09596110310482173.
- Suh, C. J., & Lee, I. T. (2018). An empirical study on the manufacturing firm's strategic choice for sustainability in SMEs. *Sustainability*, 10(2), 572.
- Suková, L. (2020). Greiner's Model and Its Application in Automotive Companies in the Czech Republic. *Acta Informatica Pragensia*. 9. 10.18267/j.aip.129.
- Sumeracki, M. & Karpicke, J. (2013). Retrieval practice with short-answer, multiple-choice, and hybrid tests. *Memory (Hove, England)*. 22. 10.1080/09658211.2013.831454.
- Syed, H. A. (2019). Sustainability in crisis: Towards business continuity in small and medium enterprises. In *Proceedings of 17th European Conference on Computer-Supported Cooperative Work-Doctoral Colloquium*. European Society for Socially Embedded Technologies (EUSSET).
- Syed, J., Mingers, J., & Murray, P. A. (2010). Beyond rigour and relevance: A critical realist approach to business education. *Management Learning*, 41(1), 71-85.
- Tam, S., & Gray, D. E. (2016). What can we learn from the organizational life cycle theory? A conceptualization for the practice of workplace learning. *Journal of Management Research*, 8(2), 18-29.
- Taylor, J. (2012), *Decision management systems: a practical guide to using business rules and predictive analytics*, IBM Press, Boston MA.
- Teece, D. J. (2019). A capability theory of the firm: an economics and (strategic) management perspective. *New Zealand Economic Papers*, 53(1), 1-43.
- Teece, D. J., & Kay, N. (2019). *The Evolution of the Theory of the Firm*. Edward Elgar Publishing.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic management journal*, 18(7), 509-533.

- Teece, D.J. (1982). Towards an economic theory of the multiproduct firm. *Journal of Economic Behavior & Organization*, 3(1), 39–63.
- Teece, D.J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance, *Strategic Management Journal*, 28(13), 1319–1350.
- Tendai, C. (2013). Networks and performance of small and medium enterprises (SMEs) in different stages of the life cycle: A case study of a small business in the Netherlands. *Journal of Communication*, 4(2), 89-94.
- Thomas, A. B. (2004), *Research Skills for Management Studies*, Routledge, London.
- Thompsen, J. A. (2017), *Diagnostics for strategic decision making: the rapid due diligence model*, Routledge, NY
- Thorgren, S., & Williams, T. A. (2020). Staying alive during an unfolding crisis: How SMEs ward off impending disaster. *Journal of Business Venturing Insights*, 14, e00187.
- Thunholm, P. (2005). Planning under time pressure: An attempt toward a prescriptive model of military tactical decision making. *How professionals make decisions*, 43-56.
- Thursfield, D., & J. Hamblett. 2004. Human Resource Management and Realism. In *Critical Realist Applications in Organisation and Management Studies*, edited by S. Fleetwood, and S. Ackroyd, 113–130. London, UK: Routledge.
- Thywissen, C., Pidun, U., & zu Knyphausen-Aufseß, D. (2018). Process matters-The relevance of the decision-making process for divestiture outcomes. *Long Range Planning*, 51(2), 267-284.
- Ticehurst, G. W. & Veal, A. J. (2000), *Business research methods*, French Forest, Longman, NSW (GB)
- Tidd, J., Bessant, J. & Pavitt, K. (2009), *Managing Innovation: Integrating Technological, Market and Organisational Change*, Wiley, Chichester.
- Tilley, F. and Fuller, T. (2000), *Foresighting methods and their role in researching small firms and sustainability*, *Futures*, Vol. 32 No. 2, pp. 149-61.
- Todd, P., & Benbasat, I. (1992). The use of information in decision making: An experimental investigation of the impact of computer-based decision aids. *Management Information Systems Quarterly*, 16(3), 373–393. <https://doi.org/10.2307/249534>
- Torchia, M., & Calabrò, A. (2019). Open innovation in SMEs: A systematic literature review. *Journal of Enterprising Culture*, 27(02), 201-228.
- Trochim, W., & Donnelly, J. (2006). *The research methods knowledge base*, 3rd. Mason, OH: Atomic Dog Publishing.
- Tsenkova, S. (2002). *Urban regeneration. Learning from the British Experience*, Calgary.
- Tsoukas, H. (1991). The Missing Link: A transformational view of metaphors in organizational science. *Academy of Management Review*, 16(3), 566-585.
- Turner, T., Kutsch, E., Maylor, H., & Swart, J. (2018). Towards an understanding of ‘dynamic ambidexterity’ in supporting managerial resilience. *Organizational Learning, Knowledge and Capabilities (OLKC) Conference*, Liverpool, UK.

U

- Udriyah, U., Tham, J., & Azam, S. (2019). The effects of market orientation and innovation on competitive advantage and business performance of textile SMEs. *Management Science Letters*, 9(9), 1419-1428.
- Ulmer, M. J., & Nielsen, A. (1947). Business Turn-Over and Causes of Failure. *Survey of Current Business*, 27(4), 10–16.
- Ulrich, K. T., Eppinger, S. D. & Goyal, A. (2011). *Product Design and Development*, Vol. 2, McGraw-Hill, New York.
- Vaaland, T.I. & Heide, M. (2007), Can the SME survive the supply chain challenges? *Supply Chain Management*, Vol. 12 No. 1, pp. 20-31. <https://doi.org/10.1108/13598540710724374>
- Valaei, N. (2017). Organizational structure, sense making activities and SMEs' competitiveness. *VINE Journal of Information and Knowledge Management Systems*.
- Van de Vrande, V., De Jong, J. P., Vanhaverbeke, W., & De Rochemont, M. (2009). Open innovation in SMEs: Trends, motives and management challenges. *Technovation*, 29(6-7), 423-437.
- Van de Wetering, R., Kurnia, S., & Kotusev, S. (2021). The Role of Enterprise Architecture for Digital Transformations. *Sustainability* 2021, 13, 2237.
- Van der Heijden, K. (2011). *Scenarios: the art of strategic conversation*. John Wiley & Sons.
- Van Notten, P. W., Slegers, A. M., & van Asselt, M. B. (2005). The future shocks: on discontinuity and scenario development. *Technological forecasting and social change*, 72(2), 175-194. scenario development. *Technol Forecast Soc Change* 72(2):175–194.
- Van Someren, R. (2014). Aptitude and attitude as constraints and enablers in organisation development: An elementary model of organisational processes. Van Someren.
- Van Teijlingen, E. R., & Hundley, V. (2001). *The importance of pilot studies*.
- Vanderstraeten, J., Hermans, J., van Witteloostuijn, A., & Dejardin, M. (2020). SME innovativeness in a dynamic environment: is there any value in combining causation and effectuation? *Technology Analysis & Strategic Management*, 32(11), 1277-1293.
- Varum, C. A., & Rocha, V. C. (2013), Employment and SMEs during Crises, *Small Business Economics* 40 (1): 9–25. doi:10.1007/s11187-011-9343-6.
- Vergragt, P. J., & Quist, J. (2011). Backcasting for sustainability: Introduction to the special issue. *Technological Forecasting & Social Change*, 78, 747-755.
- Verreynne, M. L., & Meyer, D. (2010). Small business strategy and the industry life cycle. *Small Business Economics*, 35(4), 399-416.
- Verschuren, P. J. (2001). Holism versus reductionism in modern social science research. *Quality and Quantity*, 35(4), 389-405.
- Vishnevskiy, K. O., & Egorova, O. G. (2015). Strategic foresight for SMEs: choice of the most relevant methods. In *ISPIM Conference Proceedings* (p. 1). The International Society for Professional Innovation Management (ISPIM).
- Vishnevskiy, K., Meissner, D., & Egorova, O. (2015). Foresight for SMEs: how to overcome the limitations in small firms? *Higher School of Economics Research Paper No. WP BRP*, 45.

- Voss, C., Roth, A. V., & Chase, R. B. (2008). Experience, service operations strategy, and services as destinations: foundations and exploratory investigation. *Production and operations management*, 17(3), 247-266.
- Voss, C., Tsikriktsis, N., & Frohlich, M. (2002). Case research in operations management. *International journal of operations & production management*.
- Wack, P. (1985): Scenarios: Uncharted waters ahead. In: *Harvard Business Review*, 63(5): 73-89.
- Wahyuni, N. M., & Sara, I. M. (2020). The effect of entrepreneurial orientation variables on business performance in the SME industry context. *Journal of Workplace Learning*.
- Wallace, D., & Barnard, B. (2018). Perceptions of entrepreneurs and innovators regarding radical innovation: fundamentals, requirements, and method. *Requirements, and Method* (December 27, 2018).
- Wang, C., Walker, E., & Redmond, J. (2007). Explaining the lack of strategic planning in SMEs: The importance of owner motivation.
- Wang, S. D. (2003). The implications of e-financing: implications for SMEs. *Bulletin on Asia-Pacific Perspective*, 2004.
- Ward, A., Runcie, E., & Morris, L. (2009). Embedding innovation: design thinking for small enterprises. *Journal of Business Strategy*, 30(2-3), 78-84.
- Watson, J. (2003). The potential impact of accessing advice on SME failure rates. A paper for the Small Enterprise Association of Australia and New Zealand 16th Annual Conference, Ballarat, 28 Sept-1 Oct,
- Webb, R. A. (2004). Managers' commitment to the goals contained in a strategic performance measurement system. *Contemporary Accounting Research*, 21(4), 925-958.
- Wehinger, G. (2014). SMEs and the credit crunch: Current financing difficulties, policy measures and a review of literature. *OECD Journal: Financial Market Trends* 2: 115–148.
- Weihrich, H. (1982). The TOWS matrix - A tool for situational analysis. *Long range planning*, 15(2), 54-66.
- Welsh, J.A. & White, J.F. (1981), A small business is not a little big business, *Harvard Business Review*, Vol. 59 No. 4, pp. 18-32.
- Wheelen & Hunger (2008). *Strategic management and business policy concepts and cases*, 11th ed. Upper Saddle River: Pearson/Prentice Hall
- White, G. R., & Samuel, A. (2019). Programmatic Advertising: Forewarning and avoiding hype-cycle failure. *Technological Forecasting and Social Change*, 144, 157-168.
- Whittington, R., Yakis-Douglas, B., Ahn, K., & Cailluet, L. (2017). Strategic planners in more turbulent times: The changing job characteristics of strategy professionals, 1960–2003. *Long Range Planning*, 50(1), 108–119.
- Wiebe, K., Zurek, M., Lord, S., Brzezina, N., Gabrielyan, G., Libertini, J., Loch, A., Thapa-Parajuli, R., Vervoort, J. and Westhoek, H., (2018). Scenario development and foresight analysis: exploring options to inform choices. *Annual Review of Environment and Resources*, 43, pp.545-570.
- Wiesner, R., Banham, H. C., & Poole, N. (2004). Organizational change in small and medium enterprises (SMEs). In *Proceedings of the 21st Annual Canadian Council for Small*

- Business and Entrepreneurship Conference (CCSBE 2004) (pp. 1-32). Canadian Council for Small Business and Entrepreneurship (CCSBE).
- Williams, B., & Hummelbrunner, R. (2010). *Systems concepts in action: a practitioner's toolkit*. Stanford University Press.
- Williams, T. J., Li, H., Bernus, P., Uppington, G., & Nemes, L. (1999). The life cycle of an enterprise. *Handbook of Life Cycle Engineering*, A. Molina, JM Snchez, and A. Kusiak, Eds. Heidelberg: Springer, 153-180.
- Winter, S. G. (2003). Understanding dynamic capabilities. *Strategic management journal*, 24(10), 991-995.
- Wise, R. M., Fazey, I., Smith, M. S., Park, S. E., Eakin, H. C., Van Garderen, E. A., & Campbell, B. (2014). Reconceptualising adaptation to climate change as part of pathways of change and response. *Global environmental change*, 28, 325-336.
- Wolcott, H. F. (1994). *Transforming qualitative data: Description, analysis, and interpretation*. Sage.
- Wong, A., Holmes, S., & Schaper, M. T. (2018). How do small business owners actually make their financial decisions? Understanding SME financial behaviour using a case-based approach. *Small Enterprise Research*, 25(1), 36-51.
- Woodside, A. G. (2005). Firm orientations, innovativeness, and business performance: Advancing a system dynamics view following a comment on Hult, Hurley, and Knight's 2004 study. *Industrial marketing management*, 34(3), 275-279.
- Woodside, A. G., Nagy, G., & Megehee, C. M. (2018). Four-corner outcomes in strategic management: Successful and unsuccessful paddling down versus upstream. In *Improving the marriage of modeling and theory for accurate forecasts of outcomes*. Emerald Publishing Limited.
- Wooldridge, B., & Cowden, B. (2020). *Strategic Decision-Making in Business*. In Oxford Research Encyclopedia of Business and Management.
- Wright, M., I. Filatotchev, R. Hoskisson, & M. Peng. (2005). Strategy Research in Emerging Economies: Challenging the Conventional Wisdom, *Journal of Management Studies* 42: 1–33
- Wulf, T., Meissner, P., & Stubner, S. (2010). *A scenario-based approach to strategic planning. Integrating Planning and Process Perspective of Strategy*, Leipzig.
- Yadav, N., Gupta, K., Rani, L., & Rawat, D. (2018). Drivers of sustainability practices and SMEs: A systematic literature review. *European Journal of Sustainable Development*, 7(4), 531-531.
- Yadav, V., Jain, R., Mittal, M. L., Panwar, A., & Sharma, M. K. (2019). An appraisal on barriers to implement lean in SMEs. *Journal of Manufacturing Technology Management*.
- Yanow, D., & Schwartz-Shea, P. (2009). Interpretive research: Characteristics and criteria. *Revue internationale de Psychosociologie*, 15(35), 29-38.
- Yeboah, M. A. (2015). Determinants of SME growth: An empirical perspective of SMEs in the Cape Coast Metropolis, Ghana. *The journal of business in developing nations*, 14(3), 1-21.

- Yeng, W. L., Wei, K. C. & Abdullah, A. A. (2018) Chinese entrepreneurial capabilities and practices: case of Malaysian SME. In: 3 rd UUM International Qualitative Research Conference (QRC), 10-12 July 2018, Melaka, Malaysia.
- Yeşil, S., Büyükbeşe, T., & Koska, A. (2013). Exploring the link between knowledge sharing enablers, innovation capability and innovation performance. *International Journal of Innovation Management*, 17(4), 1350018.
- Yin, R. K. (2015), *Qualitative research from start to finish*. Guilford publications.
- Yin, R.K. (2003), *Case study research: design and methods*. Sage, Thousand Oaks, CA
- Yoo, W. J., Choo, H. H., & Lee, S. J. (2018). A Study on the sustainable growth of SMEs: The mediating role of organizational metacognition. *Sustainability*, 10(8), 2829.
- Yoshino, N., & Taghizadeh-Hesary, F. (2017). Solutions for small and medium-sized enterprises' difficulties in accessing finance: Asian experiences (No. 768). ADBI Working Paper.
- Yue, W., & Hanxiong, W. (2011). Analysis of enterprise development strategies based on the features of different stages in enterprise life cycle. In *Proceedings of the 8th International Conference on Innovation & Management* (pp. 802-806). Japan: Kitakyushu.
- Yuen, Y., & Ng, X. (2021). Enhancing innovation performance of small and medium enterprises in Malaysia. *Management Science Letters*, 11(3), 887-894.
- Yun, J. J., Zhao, X., Jung, K., & Yigitcanlar, T. (2020). The Culture for Open Innovation Dynamics. *Sustainability*, 12(12), 5076. doi:10.3390/su12125076
- Zahra, S. A., & George, G. (2002). Absorptive capacity: A review, reconceptualization, and extension. *Academy of management review*, 27(2), 185-203.
- Zaidi, M. F. A., & Othman, S. N. (2015). Structural ambidexterity vs. contextual ambidexterity: Preliminary evidence from Malaysia. *The Social Sciences*, 10(6), 1200-1207.
- Zainol, F. A. (2013). The antecedents and consequences of entrepreneurial orientation in Malay family firms in Malaysia. *International Journal of Entrepreneurship and Small Business*, 18(1), 103-123.
- Zheng, D.L. (2018), "Design thinking is ambidextrous", *Management Decision*, Vol. 56 No. 4, pp. 736-756. <https://doi.org/10.1108/MD-04-2017-0295>

## **Appendices**

-Page Intentionally Left Blank-

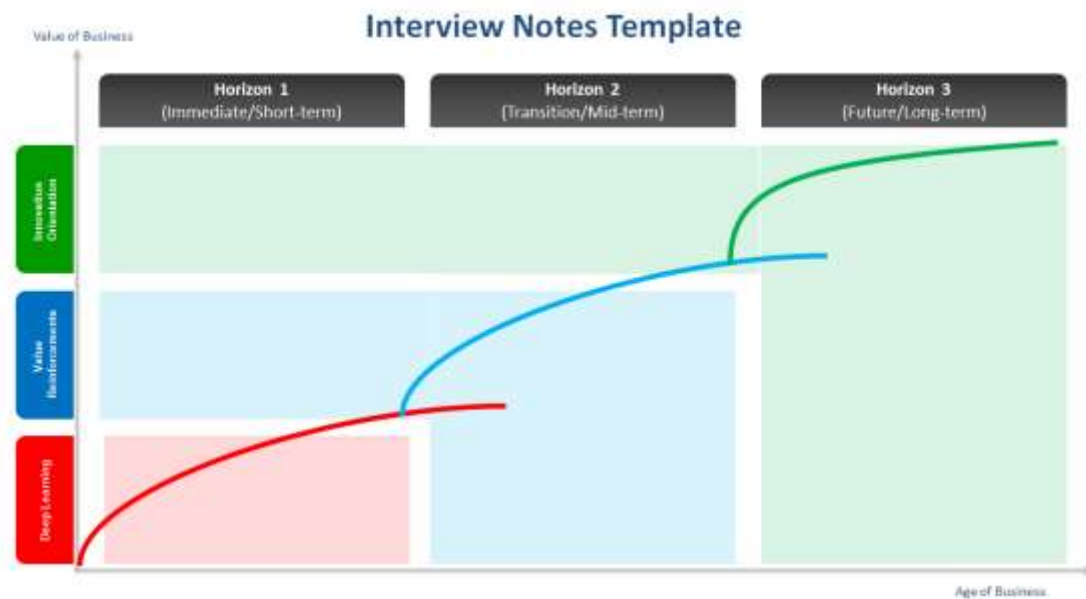
## Appendix A

### *Appendix A.1: Semi-structured Interview Questionnaires Sheet*

#	Main Questions	Additional Questions	Clarifying Questions
Industry & Sector qualifiers - Highly Impacted MY-SMEs			Can you expand a little on this?
1	What industry or sector most accurately describes your company's businesses?	How has the COVID-19 pandemic affected your company's primary industry?	
2	What is your primary role and area of responsibility in decision-making for the company? (Management levels – Senior, Middle or Line)	What are the expected strategic management decisions on change for the business and its future direction?	
Part 1: Establishing Strategic Posture on VUCA Environments & Crisis Interventions.			Can you tell me anything else?
3	Can you tell me how the business got to this point from periods before the COVID-19 pandemic?	Does your company's organisational strategy now match the availability of your current resources and capabilities?	Can you provide me some examples?
4	What are the key success factors influencing the business - particularly in managing the current turbulent business climate?	Can you list out what would be the key issues and challenges faced by the company moving into the next business cycle?	
5	How clear is your vision for what strategy needs to be implemented in your organisation in the immediate & longer-term future?	Is the direction that the company wants to go in - clear and realistically achievable?	
6	How efficient is your organisation in the implementation of change strategy?	What changes would you make on strategic planning for your company?	Can you expand a little on this?
Part 2: Expounding the firm's strategic decision management practices on the business and integrated resources.			Can you tell me anything else?
7	How do you utilise the external environment information in making decisions on internal resources to help the business improve, stay competitive, and strategically meet goals? (i.e., people, processes, equipment, raw materials etc.)	Do you adopt any systematic approach or systemised applications for resource management? How effective is the management of financials and capitals of the business?	
Part 3: Explicating level of proficiency & focus on strategic orientations for regeneration.			

8	<b>Does the business have a clear and organised plan on how to recover the business and advance the strategic objectives over time?</b>	Can you describe the factors influencing this?	Can you provide me some examples?
9	<b>Is the company and business sustainable for now, 3 years from now, and 5 years in the future? What do you think would be the key factors influencing your business continuity?</b>	Is the organisation putting the right amount of planning & effort into initiatives today that would bring the company to the desired future?	
<b><i>Part 4: Establishing time-boundedness factor of strategy paradigms with strategic orientation fit as corollaries to continuous improvement.</i></b>			
10	<b>What are the main challenges to establish strategic decision-making in your organisation?</b>	How would you immediately improve the processes now?	
11	<b>In your experience, are initial decisions coming from leadership roles in your company set in stone?</b>	What are the company's long-term vision that is reflected in its short-term priorities?	
12	<b>What do you think could negate the impact of current management's decision on strategy implementations in the next business cycle?</b>	How proactive is the business and its leadership to identify and implement change?	
<b><i>Additional observations</i></b>			
<i>Note: Use the interview notes template to capture contextually relevant observations to research how the practice of SDM and exploring strategy paradigms are established in the firm with regards to managing external disruptions over time.</i>			
<b><i>Conclusion of Interview</i></b>			

## Appendix A.2: Interview Notes Template



**The firm on managing VUCA & Crisis interventions:**

**The firm on managing strategic decisions & resources:**

**The firm on future preparedness & pathways to reform:**

**The firm on managing reform with dynamic capability:**

**Additional Observation:**

*(i.e., OLC, growth YoY, organisational structure, technology adoption etc.)*

**Observer's conclusion/generalisation on the firm's Decision-Making practices from the Interview:**

*(With specific focus on the firm's decisions-making processes and management capability)*

## **Appendix B**

-Page Intentionally Left Blank-

## Appendix B1: Case study company profiles and gathered observations

Case ID:	Pilot Run & Case A (Expert)	Case B	Case C	Case D	Case E
<b>Company (identified by pseudonyms):</b>	Company A (Konsultech)	Company B (Heavenly)	Company C (HomelyHotel)	Company D (SteamingCrab)	Company E (Kleanmaxzone)
<b>Ownership:</b>	Independent privately owned (Sdn. Bhd.)	Independent privately owned (Sdn. Bhd.)	Independent privately owned (Sdn. Bhd.)	Independent privately owned (Sdn. Bhd.)	Independent privately owned (Sdn. Bhd.) with 50% local equity.
<b>SME criterion for study:</b>	maximum limit of 75 employees	maximum annual sales turnover of MYR50 million.	maximum limit of 75 employees.	maximum limit of 75 employees.	maximum annual sales turnover of MYR50 million.
<b>Sector:</b>	Services	Services	Services	Manufacturing	Manufacturing
<b>Industry:</b>	Professional	Human Health	Accommodation	Food & Beverage	Chemicals
<b>Products and Services offered:</b>	Management consultancy in productivity and continuous improvements. Amongst the tool and licensed processes advocated by the firm include LEAN methodologies and Six Sigma business solutions.	Burial and cremation services with memorial park amenities which include a temple shrine and well-equipped crematorium with private viewing gallery. Services also include hospice care for terminally ill individuals upon special requests by family group clientele.	Budget friendly smart hotel with basic amenities which include business connectivity (internet/Wi-Fi, telephone etc) and location advantage at a lower price than a regular 3–5-star hotel.	Seafood & Western Grill restaurant serving wagyu beef steaks and grill and a signature Chinese Muslim cuisine featuring live seafood on display in saltwater aquariums. A full seated service casual dining family restaurant and the only HACCP (a Malaysian Standard certification on Hazard Analysis and Critical Control Point) certified F&B outlet in within the residential location it operates in.	Bio-friendly specialty chemicals products which can be used for household and industrial general cleaning, degreasing, cleaning of gaseous organic compounds (VOCs), minimizing the effects of oil damage and contaminants. All products are 100% natural and biodegradable to meet environmental safety standards and limits.
<b>Customer base:</b>	Large organisations including international organisations. Some government linked companies (GLCs) were also in the list of clienteles.	Public and private individuals or family run groups including companies representing their employees.	General domestic tourists and business travellers. International tourist (individual and groups) including short-stay business travellers. Long-term lodgings and accommodation are also provided upon requests and advanced payments.	General residential area and adjacent township within 30km radius.	General household (including offices and cleaning service providers) and industrial applications (i.e., automotive, aerospace, factory, and mills etc).
<b>Age of business (years):</b>	10	25	10	15	30
<b>No. of Full-time Employees:</b>	10	85	10	20	8
<b>Lifecycle/Growth stage of business:</b>	Maturity	Expansion	Survival	Growth	Survival
<b>Informant's job function:</b>	Managing Director	Director	Managing Director	CEO	Managing Director
<b>Reported status on Revenue during COVID-19 period:</b>	Stable	Shortfall	Shortfall	Surplus	Shortfall
<b>Firm's perceived impact of current turbulence/crisis:</b>	Moderate	Moderate	Acute	Moderate	Acute

Case ID:	Pilot Run & Case A (Expert)	Case B	Case C	Case D	Case E
<b>The firm on managing VUCA &amp; Crisis interventions:</b>	Not particularly familiar with managing VUCA. Typical crisis experienced in the past were business operations and market' competition related issues. No evidence of specific process and job function allocated for crisis management and interventions.	Although unfamiliar with VUCA terms, the firm is taking steps to prepare for impact of major crisis and future uncertainties. Major transformation has been planned and has commenced before the COVID-19 situation appeared.	Unfamiliar with academic business management terminologies, despite non-institutionalised risk management processes, the firm is relying on its EO to actively deal with impeding crisis.	Despite low frequencies of dine-in patrons' sales revenue from take-away service has been on the increase. This has triggered the firm to consider slight change in business operations being part of mitigating risks under prevailing economic crisis.	The firm is heavily relying on its principal technology partner who owns the proprietary formulations to mitigate risks. Bounded by legal and contractual obligations with the principal, all matters pertaining to corporate strategic decisions must be decided upon the principal's approval.
<b>The firm on managing strategic decisions &amp; resources:</b>	Management decisions has always been undocumented and done by one person who is the owner of the company. Every micro-decision need to also be routed back to the MD for endorsements and final approval.	The shareholders are beginning to realise the importance of institutionalised processes and improving the organisational competencies. They have started to employ professionally qualified management personnel to drive the company forward into the future.	Despite the lack of processual structure in managing decisions, the firm is managing its resources via effectively utilising entrepreneurial past experiences and strong business acumen.	The CEO makes decisions on the spot but with consensus the second owner. Management style is informal and purely based on entrepreneurial skillset and past experiences in handling business crisis.	The firm manages strategic decisions and resources at regional level but only covering the areas of human resource and competitive pricing. Other major decisions are routed back to the principal partner for review.
<b>The firm on future preparedness &amp; pathways to reform:</b>	Despite being a management consulting firm, conventional approach to strategy making persisted. There seems to be a lack of 'strategic thinking' being employed, but rather the firm is very efficient in designing paths for operational improvements.	Although future-preparedness is not a conventional terminology, the practice of being prepared for tough times has been an embedded element in management 'style' of the company and business.	Struggling with survival of the business, the exhibited typical behaviour of SME organisation and management suggested the firm to rely heavily on governmental assistance and external environmental shifts to reform.	The firm is making drastic changes to restructure the business in its entirety but shall continue to compete within the same F&B sector and industry.	The business depends largely on the sustainability of the principal partner and its global business strategy. Nonetheless, the firm is relying on the owner's entrepreneurial experience and past success in developing a masterplan to reform at the onset of major crisis of future uncertainty.
<b>The firm on managing reform with dynamic capability:</b>	The firm claims to practice what it preaches in employing LEAN framework to manage business reform. Despite the 'consciously competent' ability to perform value stream mapping and continuous improvement methodological approach, the element of coping with	The management has taken a major step in deciding to transform the company and business with adoption of digitalisation transformation phase. Major hiring is also ongoing to hire competent and qualified business professionals to ensure effective delivery of expected results.	The firm and its business are unsure on the positive achievement of immediate strategy outcomes under current uncertainty. The lack of immersive adoption and utilisation of environmental scanning to design and develop a strategic recovery path is predominantly dictated by its organisational capability and formalised SM limitations.	Clear evidence of ability to explore and exploit current and future opportunities via actions taken to restructure the business model and focus into processed food manufacturing/packaging value offerings.	The firm was demonstrating more focus on defining the strategic problems from arising compelling situation at the onset of COVID-19 impact of new norms on its major industry player clientele. Despite being an ISO certified manufacturing company, evidence of informalised decisions do appear particularly

Case ID:	Pilot Run & Case A (Expert)	Case B	Case C	Case D	Case E
<b>Additional Observation:</b> (i.e., OLC, growth YoY, organisational structure, technology adoption etc.)	'future-preparedness' remains lacking. The firm in its mature phase of business lifecycle operates with a very lean and flat organisational structure. Decision-making has only one layer of authority consensus and approval. No evidence of advanced technological innovation adoption was observed.	The firm is on the uphill stage in its expansion phase and continue to do so despite COVID-19 impact to the business. The firm also seems to be radically shifting to become more competent with building its competency and absorptive capability.	As many other similar businesses are facing instant shutdown and decimation of entire operations, the firm seems to be optimistic to recover despite having to continue operating the business minimally, with major cost reduction and drastic measures in place.	Despite the prevalent concerns of smaller eateries facing business closures and some bigger chained restaurants facing difficulty to continue operations, the firm is gearing up for optimistic future with technology adoption for business continuity and continuous sustainability.	in managing strategic pathways to reform. With year-on-year growth being greatly impacted, the matured business is now facing an unprecedented survival crisis in the current phase of its lifecycle. This may further influence the decision management to continue with full production capacity of it blending facility.
<b>Observer's conclusion/generalisation on the firm's Decision-Making practices from the Interview:</b> (With specific focus on the firm's decisions-making processes and management capability)	Undocumented strategy and strategic decision-making processes. Informal decision management mainly used to guide strategy imperatives. Planning activities on future preparedness observed to be purely tactical.	Beginning to document strategic processes and activities via evident transformation initiatives. More structured decision management in the works. Strategic initiatives on being future prepared at developmental stage/phase.	Undocumented strategy and strategic decision-making processes. Informal decision management purely guided by strong entrepreneurial experience on strategy imperatives. Planning and strategic activities on future preparedness remains unexplored.	Despite undocumented strategic processes and activities, evident official certification on the business supports transformation initiatives. More structured decision management in the works. Strategic initiatives on being future prepared at developmental stage/phase.	Despite being a full-fledged manufacturing-based firm, undocumented strategic processes and activities remains a gap. Structured decision management in place but not explicitly as standard practice. Developmental and strategic activities on future preparedness remains unexplored.

Case ID:	Case F	Case G	Case H	Case I	Case J
<b>Company (identified by pseudonyms):</b>	Company F (TopChairs)	Company G (CivilScope)	Company H (AirGenTech)	Company I (TechTani)	Company J (MaximusWellmax)
<b>Ownership:</b>	Independent privately owned (Sdn. Bhd.)	Independent privately owned (Sdn. Bhd.)	Independent privately owned (Sdn. Bhd.) subsidiary of ACE/LEAP market listed parent in Bursa Malaysia	Independent privately owned (Sdn. Bhd.)	Independent privately owned (Sdn. Bhd.)
<b>SME criterion for study:</b>	maximum limit of 75 employees.	50% local equity and maximum limit of 75 employees.	maximum annual sales turnover of MYR50 million.	maximum annual sales turnover of MYR50 million.	maximum limit of 75 employees.
<b>Sector:</b>	Manufacturing	Construction	Construction	Agriculture	Mining
<b>Industry:</b>	Furniture	Civil Engineering	Specialised	Crops/Animals	Support services
<b>Products and Services offered:</b>	A manufacturer and retailer of wide variety of home and office furniture, including bedroom sets, couches, and children's' furniture. A selection of high-end furniture from teak wood is amongst its value offering to customers.	Mechanical, Electrical and Civil engineering, construction, and maintenance services. Diagnostic testing activities for preventive maintenance of electrical equipment are also being offered under contractual operations and maintenance services.	Specialised in the design and manufacture of utility air supply systems, gas generation equipment, chemical injection and process equipment skids for the oil & gas, petrochemicals, and energy heavy industries.	Precision farming and agrofarm conceptual approach for specialty greens/vegetables and plants yielding fruits. Indoor farming conceptual offerings which include automation-enabled irrigation management tool, weather station and crop monitor analytics company that creates and develops cloud-based software to boost crops yield and conserve water and energy. The firms also offer aquaponic systems and technical solutions, advisory services, and training on Agropreneurship.	A licensed national oil company (Petronas) vendor, acting as the local agent/channel partner to reputable International OEM/Technology companies for the supply of specialty equipment/technology solutions to oil and gas projects in Malaysia.
<b>Customer base:</b>	General office and residential area and adjacent townships within 30-50km radius.	Oil & Gas production companies which include the national and international oil companies. Other industry players include general factory owners which include processing and production facilities construction projects and requirements.	Oil and energy sector players which include the national oil & gas and power generation companies. General industry players involving manufacturing and production facilities utilities provision and requirements for special purpose mechanical equipment.	Clientele ranges from individual household to high-volume food retailers, wholesale distributors/retailers, restaurants, and institutions that feature foods grown by local farmers.	International Oil Companies (IOCs) via local representation and distributorship agreement being part of the National Oil Company's (NOC) legal and commercial mandated requirements.
<b>Age of business (years):</b>	15	5	20	10	18
<b>No. of Full-time Employees:</b>	30	20	100	15	25
<b>Lifecycle/Growth stage of business:</b>	Survival	Birth	Survival	Expansion	Survival
<b>Informant's job function:</b>	Managing Director	General Manager	Managing Director	Managing Director	Senior General Manager
<b>Reported status on Revenue during COVID-19 period:</b>	Shortfall	Shortfall	Shortfall	Stable	Shortfall

Case ID:	Case F	Case G	Case H	Case I	Case J
<b>Firm's perceived impact of current turbulence/crisis:</b>	Acute	<i>Decimation</i>	Acute	Moderate	Moderate
<b>The firm on managing VUCA &amp; Crisis interventions:</b>	Despite proven past experiences in managing crises in business and operations, the firm is unfamiliar with VUCA environment instigated by the prevailing economic uncertainty. This entails steeper learning curve to be undertaken by the firm with tremendous pressure to mitigate the ever-present highly detrimental market risks.	Predominantly run by engineers, the firm exhibited lack of strategic management processual implementation on business aspect of handling major crisis particularly at the onset of the COVID-19 pandemic situation.	The firm demonstrated 'Project Management' approach to managing crises which is highly specific and contextually exhaustive. The prevalent VUCA situation presented a completely different challenge with reliably achievable intervention scheme remains unexplored.	The firm demonstrated strong and early innovative capability via its 'early adopter' approach in managing market and growth changes.	Crisis intervention strategy and related risks mitigation at the onset of current market downturn is dictated by the firm's agility to manage its cashflow health. However, as the business relies heavily on its sole profit out of commissions, the resilience of its equity shareholders to retain their stakes would dictate the direction of the firm.
<b>The firm on managing strategic decisions &amp; resources:</b>	General management approach to making-decisions and managing resources at the onset of current market turbulence is purely dictated by strong entrepreneurial attributes and past experiences.	Structured approach on decision-making is dictated by 'design approach' on troubleshooting and problem solving. Focus driven context on managing resources are complemented by project management experience of the owner-managers of the business.	<i>At the onset of current market downturn, the firm relies on parent holding company to support on resource allocation and objectivities concerning strategic way forward. Noteworthy advantage this firm possess over its competitors alike are the access to funds for immediate recovery and potential buyout with consideration of profit contributions to the parent organisation.</i>	<i>The firm exhibited structured planning and decision-making process particularly in managing its business expansion and allocation and taking advantage of integrated resources to increase its capital investments.</i>	Very agile and flexible as the firm also do not seem to possess high and tangible long-term liabilities in the business and operations.
<b>The firm on future preparedness &amp; pathways to reform:</b>	Reform strategies are focused on operational improvements and eliminating redundancies as temporary remediation at the onset of setting sight into the future business sustainability.	<i>The onset of COVID-19 and business downturn has raised a major concern on business continuity of the firm which is still at the early 'birth' stages of growth and lifecycle. The only plausible stable path to reform would entirely be dependent on the rate and pace of recovery of its major industry players clienteles. Nonetheless this is beyond the firm's influence and direct control.</i>	More focused on intermediate growth recovery with strategic shifts driven towards managing sustainability of legacy contracts and business values with established clienteles.	<i>The unique ability of being an agritech-company provided clearer strategic vision on the pathway of reforming and transforming the business. Despite the many challenges faced by conventional agriculture related businesses, the firm is on track with its expansion plans by taking advantage of new technology adoptions.</i>	More focused on intermediate growth recovery with strategic shifts driven towards managing sustainability of legacy contracts and business values with established clienteles.

Case ID:	Case F	Case G	Case H	Case I	Case J
<b>The firm on managing reform with dynamic capability:</b>	The firm demonstrated typical manufacturer competent mindset of exploring problems to be fixed rather than exploiting strategic opportunities.	Reactionary decision imperatives were observed but are relying solely on the external environmental condition improvements. The firm demonstrated struggles in explicating strategic issues from the resulting crisis it faces. Hence, the evident lack of dynamic capability may impede achievement of positive rate of reforms.	The firm demonstrated typical manufacturer competent mindset of exploring problems to be fixed rather than exploiting strategic opportunities.	the ambidextrous disposition of the firm in explicating business reform and proponents of value creation to the industry and sector it operates in demonstrates strong dynamic capabilities at hand.	Reactionary decision imperatives are dictated by external environmental and market improvements. The firm demonstrated struggles in explicating strategic issues from the resulting crisis it faces.
<b>Additional Observation:</b> (i.e., OLC, growth YoY, organisational structure, technology adoption etc.)	Survival status remains uncertain until a much clearer outcome of external environmental shifts is visible. The restructuring process which has taken place remains a temporary solution to prevailing uncertainty in sustaining existing business model in the longer-term.	With temporary drastic measures on cost control, sustainable recovery via implementation of business model and innovation strategy at the current stage of its 'birth' lifecycle remains unexplored.	Despite the acute shortfall in revenue observed, the focus on retention of remaining service contracts proved to be an instant remedy to improve cashflow for the firm's immediate business continuity. This could foster additional strategic decision on developing new ways to scale up profits.	Despite the reduced sales velocity and turnover rates, revenue remains stable which is a 'harvested' advantage from strong innovative decisions on e-commerce platform adoptions made in the past. This could well be a strong contribution to its current achievement in its business value growth and lifecycle stages.	Survival status remains uncertain until a much clearer outcome of external environmental shifts is visible. The restructuring process which has taken place remains a temporary solution to prevailing uncertainty in sustaining existing business model in the longer-term.
<b>Observer's conclusion/generalisation on the firm's Decision-Making practices from the Interview:</b> (With specific focus on the firm's decisions-making processes and management capability)	Undocumented strategy and strategic decision-making processes. Informal decision management purely guided by strong entrepreneurial experience on strategy imperatives. Planning and strategic activities on future preparedness remains unexplored.	Undocumented strategy and strategic decision-making processes. Informal decision management purely guided by strong engineering acumen backed by past entrepreneurial experience on strategy imperatives. Planning and strategic activities on future preparedness remains unexplored.	Despite the nature and matured age of the business, undocumented strategic processes and activities remains a gap. Structured decision management were not explicitly mentioned as standard practice. Developmental strategies with innovation and strategic activities on future preparedness remains unexplored.	Structured strategic decision-making processes and strategic planning activities are evident and supports the clarity of its transformation initiatives. On the account of future-preparedness, the firm seems to demonstrate 'unconscious-competence' on practicing strategic foresight.	Undocumented strategy and strategic decision-making processes. Informal decision management purely guided by entrepreneurial and trading business experience on strategy imperatives. Planning and strategic activities on future preparedness remains unexplored.

## Appendix B2: Tabulated Interview Transcripts based on Qualitative Interview Questions

Q1	MQ1	AQ1	
	What industry or sector most accurately describes your company's businesses?	How has the COVID-19 pandemic affected your company's primary industry?	
Respondent ID	Response to MQ	Response to AQ	Notable Quotes
Company A	We represent a niche area in management consulting... as you are aware of, we help companies in the manufacturing and production business, including also other businesses with processual implications increase their level of productivity by means of proven Lean and Six Sigma concepts and continuous improvements methodology.	The area of consulting services seems to be in the increase in terms of opportunistic value for us particularly from larger organisations with allocated budgets. they are in a prime position to consider transformation or improvements. However, the training side of the business has been quite badly affected... we now see a significant reduction in training-specific jobs for us... although some basic level of training on tools and concepts being part of our business solutions framework are included in our consulting service contracts... We have not yet lost our contracts with major base clientele, but we do see a reduction of opportunity in the pipeline than the past year.	<i>"The area of consulting services seems to be in the increase in terms of opportunistic value... particularly from larger organisations with allocated budgets...."</i>
Company B	We provide specialised obituary services and memorial park real-estate which spans over 100 acres of undulating terrain. We are more service oriented business although we do also sell real-estate.	Definitely there will continue to be mortality cases daily regardless of the pandemic situation. Although there has been recorded increase in number of mortality due to COVID-19, we have not yet had to deal with many of such cases directly. Our business focuses on instant cases of death which is the current ongoing business revenue for us. the other potential in revenue stream for us is generated via future planning, meaning we do also sell our service options to families in preparation of future demise of family members... This side of the business is somewhat affected in our case, because almost everyone is tightening up their unnecessary or are more prudent on future spending. I would say that we are moderately affected by the pandemic as we are also a now undergoing expansion...	<i>"... the other potential in revenue stream for us is generated via future planning.... This side of the business is somewhat affected... because almost everyone is tightening up their unnecessary or are more prudent on future spending."</i>
Company C	We serve the travel and tourism sector with our budget accommodations business. Being part of the small budget hotels community we help to fulfil the gap for domestic tourists looking for cheaper place to stay.	The business has been hugely affected. We have lost more than half of our revenue from domestic travellers and completely all of our international visitors who used to make bookings online. Financially we are struggling to stay afloat as we continue to have to pay rent.	<i>"The business has been hugely affected. We have lost more than half our revenue from domestic travellers and completely all of our international visitors...."</i>
Company D	We are in the F&B business. We started out with the restaurant with seated service and just recently we have started the frozen food production business...	No doubt the F&B sector is quite acutely affected by the pandemic. With restricted hours for operations particularly now, and only having to provide takeaway and delivery services, we pretty much have seen drastically reduced income... our suppliers have been restricted as well in terms of logistics, and customers are greatly reduced... and all this downturn... it all happened in a sudden... and continues to happen...	<i>"...just recently we have started the frozen food production business... and only having to provide takeaway and delivery services,"</i>
Company E	What we do is repacking of environmentally surfactants, in fact we are considered a small-scale manufacturer of our proprietary bioremediation agents and specialty chemicals....	We used to serve and supply our products to our industrial customers... now, their business too are halted as only essential industries are allowed to operate intermittently, whilst other non-critical services areas remains shut under the lockdown control, we are directly and greatly impacted as well... our foreign principal technology supplier are also impacted as they	<i>"We used to serve and supply our products to our industrial customers... now, their business too is halted..."</i>

		too face similar disruptions, plus the logistics to bring in our raw components are critically affected... it is really a bad situation for the industry we are in...	
Company F	We are a small local furniture manufacturer and reseller. Our products range are focused on dining table and living room settees made from rubber-tree wood and teak wood on the high-end spec. We also sell some furniture from other distributors and brand manufacturers.	The furniture manufacturing industry in total has been completely badly affected. The number of buyers and visitors to our shop outlet has been completely gone down to almost none. Revenue is in deficit, and we are losing a lot from the market share from direct online purchases of DIY made smaller furniture items like chairs and bookshelves etc.	<i>"Revenue is in deficit and we are losing a lot from the market share from direct online purchases of DIY made smaller furniture...."</i>
Company G	The company is providing mainly civil and structural engineering design and consultancy services. We also do perform some minor construction mostly a subcontractor on a big scale project.	The pandemic has greatly impacted the construction industry. Almost all projects we have been pursuing earlier have been cancelled or postponed. No major activities and new contract awards are happening. This situation is particularly bad to smaller players like us.	<i>"Almost all projects we have been pursuing earlier have been cancelled or postponed... This situation is particularly bad to smaller player like us."</i>
Company H	We belong to the manufacturing sector as we produce steel fabricated equipment components and skids for use in the energy and power generation list of our clientele. We also provide aftersales services but only on certain contractual obligations.	The energy and power industry has been greatly impacted by COVID-19 with almost all decisions on project executions are put on hold or even cancelled off. We have been greatly impacted by this mainly due to the closure of facilities we used to serve including the termination of our service contracts.	<i>"We have been greatly impacted by this mainly due to the closure of facilities we used to serve including the termination of our service contracts."</i>
Company I	The company was established to bring change to Malaysian agriculture industry. We were one of the first commercial precision farming facility, which is built as a complete and sustainable ecosystem through the marriage of aquaculture and hydroponics. Although we are purely an agricultural business, we are also a tech-provider.	The agriculture sector has always faced challenges in sustainability of supply, whilst this still remains a challenge, the pandemic has greatly disrupted general distribution of fresh produce through wholesalers... fortunate for us, despite the lowered sales figure than previous years, we continue to sell direct to consumers.	<i>"We were one of the first commercial precision farming facility... we are also a tech-provider... the pandemic has greatly disrupted general distribution... fortunate for us... we continue to sell direct to consumers."</i>
Company J	I think the most accurate to describe the business is that we are under trading and services. We are the sole distributor and agent for our foreign principal partner for Malaysia.	Generally the whole Oil & Gas sector has been badly impacted. Volume of sales are down, and business has been quite bad. Our long-term service contracts are hard to maintain and chasing payments is also very difficult nowadays.	<i>"Our long-term service contracts are hard to maintain and chasing payments is also very difficult nowadays."</i>

	MQ2	AQ2
Q2	<b>What is your primary role and area of responsibility in decision-making for the company? (Management levels – Senior, Middle or Line)</b>	<b>What are the expected strategic management decisions on change for the business and its future direction?</b>

Respondent ID	Response to MQ	Response to AQ	Notable Quotes
Company A	I am currently the MD for our Malaysian setup, but I also oversee the business development decisions across the SEA region as the regional director....	Well, as the MD all company decisions sits with me... when talking about dealing with change, we take into account internal and external factors which influence our consulting capability before implementing any specific future strategy and measures... this is important because we need to ensure that the implementation is effective and truly reflect positive utilisation of our limited resource.	<i>"... when talking about dealing with change, we take into account internal and external factors... before implementing any specific future strategy and measures... and truly reflect positive utilisation of our limited resources..."</i>
Company B	My current role is the Director of Human Capital.... It's also a newly created position being part of the company's future expansion plans... my key function is to decide on workforce retention and planning in line with our business initiatives.	We discovered that we needed to adapt and handle our operations differently than what was used to be practiced. This is now crucial in regard to managing our intended growth during the current ongoing period of general economic crisis, to meet the objectives our shareholders and management have decided.	<i>"It's also a newly created position being part of the company's future expansion plans... We discovered that we needed to adapt and handle our operations differently than what was used to be practiced."</i>

Company C	I am fully in charge of day-to-day running and co-owner of the business with my wife. My wife is our human resource director in charge of our workforce whilst my role as the managing director pretty much covers everything from the P&L, operations, and marketing.	Management decision is the key factor to get the business running. This has been successful in the past in terms of turning things around when there are issues or crises. Unfortunately, the current state of COVID-19 has completely wiped out everything we have planned and made to work... This time around we are still contemplating on making the right decision to move forward and survive... or completely do something different.	<i>"Management decision is the key factor to get the business running. Unfortunately, the current state of COVID-19 has completely wiped out everything we have planned and made to work... This time around we are still contemplating on... move forward and survive... or completely do something different."</i>
Company D	I am the owner of the business and part-time chef... my wife is the co-owner, and she manages the staffs whilst I now am more focused on our new frozen food production venture as the CEO... so decisions regarding the direction of the business will depend entirely up to the both of us combined.	Key management decisions have always been the key 'driver' for the business... A good example I can share is on the decision we made to invest in the frozen food production. We have always served cooked meals for our diners; the pandemic has shown us the direction we needed to take to stay alive in the business... By scaling up on our takeaway offerings... now our regular diners can get the same dish they used to order and enjoy their meals at home, since no one is allowed to leave anyway nowadays...	<i>"... the pandemic has shown us the direction we needed to take to stay alive in the business... by scaling up on our takeaway offerings...."</i>
Company E	I am the shareholder and CEO/Managing Director for the company. My key responsibilities are managing the P&L and also key business development activities regarding penetration into new clients and regions... my other partners run the sales and marketing functions to retain our base clientele in the countries we are already present and conduct business...	It is critical for key decisions to be effective and useful to drive us forward and out of the current predicament we are in... as we continue to 'bleed' we need to not only reinforced decisions to change and improve the business situation, but we have to do something to survive and stay alive if we are to see the future...	<i>"It is critical for key decisions to be effective and useful to drive us forward and out of the current predicament... we need to not only reinforced decisions to change and improve... to survive and stay alive if we are to see the future...."</i>
Company F	My job function is the Managing Director. I am also the main shareholder of the company, so all decisions regarding the company's business strategy and capital investments runs through me directly...	For change to take place, management decisions will be vital. As the MD, it will be most critical for me now to decide the future of the business as we move forward with a major turnaround plan to improve our cashflow and revenues and try to survive these pandemic situations.	<i>"... it will be most critical for me now to decide the future of the business... and try to survive these pandemic situations."</i>
Company G	I am the General Manager and Managing Director of the company. I make decisions on the business and capital investments... of course all decision implementations will need to get consensus including the shareholders' final approval.	The unprecedented COVID-19 situation really caught us by surprise. We thought we had a steady start-up but now we are struggling to keep the business afloat, our financial situation is getting worst day by day... I think the strategic decision would be to decide on whether to carry on the business or just call everything off...	<i>"... all decision implementations will need to get consensus... the unprecedented COVID-19 situation really caught us by surprise... I think the strategic decision would be to decide on whether to carry on the business or just call everything off."</i>
Company H	My role as the Managing Director is in charge of the overall business and operations P&L., I am also in charge of costing decisions for each project we deliver. I am supported by the General Manager who oversees the Sales, fabrication materials and manpower resources in operating our workshop floor.	We are experiencing a sudden drop in revenue due to the COVID-19. Our strategic decision is to sustain the business by reducing cost and minimise delays on earlier secured projects' delivery of equipment to site to avoid penalty and ensure payment. As far as change for the future is concerned, we are now under capacity and have to manage our overheads and incurred costs as prudent as possible.	<i>"Our strategic decision is to sustain the business by reducing cost and minimise delays on earlier secured projects' delivery... to avoid penalty and ensure payment."</i>
Company I	My primary role is the Managing Director of the company. I am also on the main shareholder for the company, and I sit on the committee promoting precision farming technology in the local state we operate in.	We were an early adopter of technology with precision farming and e-commerce, and we continue to make strategic plans on expansion of the business by combining the two areas of competency we have built over the years. With the government's encouragement for SMEs to adopt digitalisation technology, the future for us will mean to do more with our area of specialisation.	<i>"We were an early adopter of technology with precision farming and e-commerce, and we continue to make strategic plans on expansion... by combining the two areas of competency we have built over the years."</i>

Company J	My function as the Senior General Manager is covering both the operations and P&L, I make decisions on budget cuts and expenditures for our key contracts and projects we pursue. It is also my coverage to negotiate internal contracts and commissions with our principal partners who are based in Europe and the US.	We are expected to retain all of our service contracts with our installed base. This also means that every payment milestone needs to be collected in order to keep our cashflow stable. We are also ensuring that our staffs continue to be employed, but with slight pay cuts to justify overheads. This way we can at least ensure we can continue to do business after the pandemic is over.	<i>""We are expected to retain all of our service contracts with our installed base.... In order to keep our cashflow stable... This way we can at least ensure we can continue to do business after the pandemic is over."</i>
-----------	--	--	---

MQ3

AQ3

Q3

**Can you tell me how the business got to this point from periods before the COVID-19 pandemic?**

**Does your company's organisational strategy now match the availability of your current resources and capabilities?**

Respondent ID	Response to MQ	Response to AQ	Notable Quotes
Company A	Before COVID-19, we were always progressively exploring new clientele and industry sectors... what we observe before back in 2018-2019 was that we knew we needed to focus on non-traditional clients like the banking and government sectors. Nowadays, our business is impacted, no doubt about that, but we try to manage our existing contracts and establish more real and immediate opportunities to absorb the impact of the current downturn... One thing for sure is that we are glad to continue to gain trust from our base clientele to continue and increase our level or service and offerings...	We are completely lean. our current strategy is to reduce as much cost and wastage and increase employee tasks to sustain the business... Meaning as my existing and available staffs are really the core team running key admin and consulting practice activities for the company. every staff is also the Sales lead. Unfortunately, we are not privileged to hire new people as we are tight budgeted to maintain the overheads... although the business needs to chase for more jobs, we just have to rely on and make do with whatever we can right now... at least until the market and economy become more stable....	<i>"Before COVID-19, we were always progressively exploring new clientele and industry sectors..."; "...we are completely lean... although the business needs to chase for more jobs, we just have to rely on and make do with whatever we can right now..."</i>
Company B	We have three primary office branches across the country: KL, Johor, and Ipoh. Generally our products and services offered are standardised across the three offices. We used to only offer coffins, caskets, and cremation service... Beginning of mid 2019 we started to plan on our growth strategy to add on more services and increase the strength of our organisation by hiring competent professionals to manage the specific units of the business.	We are still trying to figure out and manage this transformation smoothly, particularly under the current time constraints and surmounting concerns on external competition pressures for us to gain significant share of the market....	<i>"Beginning of mid 2019 we started to plan on our growth strategy to add on more services... hiring competent professionals to manage the specific units of the business."; "We are still trying to figure out and manage this transformation... under the current time constraints and surmounting concerns on external competition...."</i>
Company C	We started the business back in 2015 and prior to the pandemic there were intensified incentives from the government on tourism sector and financial assistance to support our growth. Although we started small, we managed to expand the business via intensified marketing and promotions using online bookings and referrals platform like Agoda, Booking.com etc. We started with a 40-bedroom facility and just before the pandemic we established around 100 bedrooms across 3 main locations in the state. Unfortunately right now we are downsizing and have to close down the other 2 locations and am concentrating only on our original facility we started with.	Our current strategy is to survive and utilise as many resources as possible we have to make it through. We have gained enough experience to optimise our operations and workforce... Letting go most of our workers were amongst the hardest decisions we had to make throughout the business life, but we had to continue staying alive until the next wave of recovery comes our way....	<i>"Although we started small, we managed to expand the business via intensified marketing and promotions using online bookings and referrals platform like Agoda, Booking.com etc.... Unfortunately right now we are downsizing and have to close down the other 2 locations...."; "Our current strategy is to survive and utilise as many resources as possible we have to make it through."</i>

Company D	<p>If the pandemic did not happen, we would have just continued running the restaurant and was considering opening up a chain branch in two other locations. Now, due to the pandemic we have taken up cost cutting measures as we have lost significant income and some staffs had to be released as well because of immigration issues related to the foreign workers policy during the pandemic... because of that, we are scaling down the restaurant to a smaller footprint venue in the same location... and are concentrating on packed meals for delivery... now venturing into frozen 'cooked' food supplies...</p>	<p>Our financial capital was in a dire state of health if we continue with the rental for the original outlet... since no dining-in is allowed under strict lockdown control, we realised, we do not need the big space anymore, hence decided to move to a smaller and cheaper rental space... there we concentrated on adding the kitchen equipment to cater for packaging and deep-freezing capabilities... as this will be the new norm for the restaurant... possibly also for most F&amp;B outlets in the future... some front-end staffs have been trained-up as well to handle packaging of food to ensure we meet health standards..</p>	<p><i>"If the pandemic did not happen, we would have just continued running the restaurant... now venturing into frozen 'cooked' food supplies..."; "... since no dining-in is allowed under strict lockdown control, we realised, we do not need the big space anymore..."</i></p>
Company E	<p>I must say that unfortunately we were unprepared for such a catastrophe... we had gone through some major tipping-point crises in the business in the past and we did anticipate such a crisis to appear, especially not to this scale and extent... this unprecedented COVID-19 impact globally which instantly changed the way we live as humans has been a major upset for the business....</p>	<p>We are trying to survive and retain our company assets as long as possible... we have lost many workers at the blending facility due to cost cutting measure as we no longer are receiving orders at the present moment... we are not able to bring in raw components timely as all logistical services are also undergoing tremendous impact and disruptions... our overheads continue to eat us and after more than 10 months 'bleeding', we are running low on resources to even take in any new large quantity orders, if any..</p>	<p><i>"... we had gone through some major tipping-point crises in the business in the past and we did not anticipate such a crisis to appear..."; "... our overheads continue to eat us... we are running low on resources to even take in any new large quantity orders..."</i></p>
Company F	<p>Our business was fluctuating and was strongly depending on specific shopping seasons like school holidays and festivities. Sales were pretty much stable all year round in general with some dips and peaks across the calendar months. When COVID-19 appeared, the instantaneous impact was very damaging as no shops were allowed to operate especially our furniture factory. We had to let go many of our general workers and factory workers to reduce impact on cost as there were no sales achieved over period of more than 6 months. Our delivery partners also were unable to operate, and some have already closed-down their delivery business.</p>	<p>Our resources are extremely limited nowadays particularly financial resources. With cash reserves depleting we are cutting cost everywhere possible to reduce outflows. We have cut down number of employees but if we continue to cut further then we cannot stabilise the factory operations when we need to start again... supply of materials to make furniture are also affected, but that is not too critical to change now as orders for new furniture are almost zero... we will deal with that when the cycle picks up again...</p>	<p><i>"Our delivery partners are also unable to operate, and some have already closed-down their delivery business."; "Our resources are very limited nowadays particularly financial resources... but if we continue to cut further then we cannot stabilise the factory operations when we need to start again..."</i></p>
Company G	<p>We are still a very young company... although our combined shareholders' experience is over 30 years, we have only been in business less than 5 years... and then suddenly came COVID-19... All our key prospect jobs have been postponed or cancelled off... we really never expected this to happen... With no projects to secure and deliver we will not be able to sustain...</p>	<p>We have used up most of our resources to try to keep the company going, but with no business flowing in, it will be almost impossible to decide on additional investments... sadly our staffs have been retrenched and we as the directors of the company are on no pay basis. The company strategy now it seems is that we will keep the company dormant until we can revive it back up again....</p>	<p><i>"All our key prospect jobs have been postponed or cancelled off... we really never expected this to happen.... We will not be able to sustain."; "We have used up most of our resources to try keep the company going... it will be almost impossible to decide on additional investments..."</i></p>

Company H	Well, prior to COVID-19 our revenues from servicing contracts were our source of steady income which covers our overheads and was ensuring our competitiveness in pricing. In fact most of these contracts was spread beyond 2025. Now, some have been terminated due to the closure of business on our client side, and many remaining ones are put on hold as the client themselves have ceased operating their facilities due to the pandemic... We never saw this coming, and this situation has really caused us a major sudden hiccup.	The strategy we are putting into place is to sustain our facility without having to liquidate any asset as we believe this downturn is temporary, although we are also still uncertain about how long this will go on... We believe our internal resources available are also ready to take up any small jobs, provided our supply of materials remains accessible...	<i>"Now, some have been terminated due to the closure of business on our client side... we never saw this coming, and this situation has really caused us a major sudden hiccup."; "... we believe this downturn is temporary, although we are also uncertain about how long this will go on..."</i>
Company I	We have always been growing the business on contractual supply for domestic and overseas market. Business has been steadily growing before the pandemic as we increase the quality and yield of our harvest. Now, the impact was an acute drop in volume delivery to wholesale and supermarket outlets as the opening hours and logistical movements are tightly controlled. However, we see an increase in direct online orders from restaurants and F&B outlets across the country for our produce. This helps to keep us afloat and control the damage a little bit.	We believe our resources are adequate for us to plan on the next expansion opportunity we need to grab. This slight stagnated economic situation gives us some room to develop our next strategic manoeuvre to solidify our position as an agritech company.	<i>"... the impact was an acute drop in volume delivery to wholesale and supermarket outlets... However, we see an increase in direct online orders..."; "This slight stagnated economic situation gives us some room to develop our next strategic manoeuvre..."</i>
Company J	Our business model has always been focused on commissions from our principal partners. We also rely on subcontractors to perform key service contracts. Despite the fact that we bear only a fraction of the cost estimate as compared to our principals, we are the sole channel for securing opportunities and contracts with oil and as clientele. When COVID-19 happened, we had to absorb quite a significant sum of cost impact and payment overdue. This is causing us a lot of pain.	Our organisational strategy now is to retain all internal manpower and resources to the best we can with minimising money outflow. As we are a small operating company with 25 employees including myself, we think we can hold-on if we do this right. This is also important because all my staffs hold all the experience we have built over the last decade and we cannot afford to lose anyone since we need to retain all install-based contracts.	<i>"... we had to absorb quite a significant sum of cost impact and payment overdue..."; "Our organisational strategy now is to retain all internal manpower and resources..."</i>
Q4	MQ4	AQ4	
	<b>What are the key success factors influencing the business - particularly in managing the current turbulent business climate?</b>	<b>Can you list out what would be the key issues and challenges faced by the company moving into the next business cycle?</b>	
Respondent ID	Response to MQ	Response to AQ	Notable Quotes
Company A	Luck and of course careful planning and managing of resources... well, for us as a small outfit it all depends on available government funding's and grants our clients can get to hire our consulting services nowadays... for us, managing cashflow is challenging when chasing payments are also an big uphill battle...	The future is very uncertain, but this situation also gives us more opportunities to explore the market to help client businesses survive and continue to improve... Overheads are a killer as we continue to pay rental when most of our client engagements nowadays are done via MS Teams and Zoom calls... our planned seminars and training schedules had to be cancelled and are all now fully done online... I guess we need to speed-up to get our training modules and seminars conducted as online paid sessions.... We also see we need to put in more effort and adopt new ways of creating awareness on our value offerings to the market...	<i>"The future is very uncertain, but this situation also gives us more opportunities to explore the market to help client businesses survive and continue to improve... We also need to put in more effort and adopt new ways of creating awareness on our value offerings to the market..."</i>

Company B	One thing for sure is we would definitely need to manage our resources and expenses as prudently as possible. We are still hiring people at this moment and at the same time implementing more stringent control of our costs... This way we can determine the most critical cost affected area in the business activities.	As we are scrutinising every aspect of cost control and deployment of our internal resources, we continue to invest in our people by providing training because we want the staffs to be stay on in their job and be fully engaged with the change implementation as we expand the business.	<i>"We are still hiring people at this moment and at the same time implementing more stringent control of our costs..."; "...we continue to invest in our people... we want the staffs to stay on their job and be fully engaged with the change implementation as we expand the business..."</i>
Company C	Right now we are struggling with financials as we continue to have to pay our rents. Although the government has mandated a period of moratorium on loans from all banks, the pandemic continues to adversely impact our business with the series of repeated lockdowns as COVID-19 cases escalates.... although our branding remains present in the market, we had to cancel online bookings repeatedly because of the travel restrictions stopping domestic travellers from arriving and staying with us... this is severely impacting us again and again... it's quite sad but many of our staffs were also greatly affected because they were unable to attend duty even if they wanted to due to this pandemic as well...	For us it's all about survival, if we must continue into the next cycle of business, the tourism sector itself must recover... otherwise, we will continue to suffer and would probably need to close down the business... we are already intermittently temporarily ceasing all business activities in accordance with the lockdown periods... in fact we are only able to collect a fraction of our overhead costs via short-stay lodgings from government and medical officials dealing with lockdown cases and some factory employees on quarantine cases.	<i>"...although our branding remains present in the market, we had to cancel online bookings repeatedly because of the travel restrictions..."; "For us it's all about survival, if we must continue into the next cycle of business, the tourism sector itself must recover..."</i>
Company D	Tightening budgets everywhere and exploring digital transformation under the incentives provided by the government I think is what we need to concentrate on now to gain and regain markets for us... Gain new sales and regain some revenue to stabilise the business...	Again our suppliers are now a key player to ensure we get all the packing materials and ingredients on time... Including delivery companies such as Food Panda, Grab Food and other delivery services to pick-up and deliver customers' orders on time and correctly. We foresee even if the lockdown cycle continues with another few phases more, what we have establish now as a new norm of operating this business should become natural for us...	<i>"... exploring digital transformation under the incentives provided by the government I think is what we need to concentrate on now to gain and regain markets for us..."; "... what we have established now as a new norm of operating this business should become natural for us..."</i>
Company E	Right now the most vital move for us is to manage our financials and reduce our client attrition rates... We rely to stay afloat with back-payments on supplies delivered before the pandemic, and although we do get some spot orders, they are too small and just barely help us to pay the bills... our clients are also in a bad shape, some smaller ones have even shutdown their business...	We no longer see profits dribbling in... our cost cutting measures were meant to be temporary... but if the lockdowns continues to be repeated and our clients are not able to restart full operations, we will continue to slump... building back the revenue level will be almost impossible as users of our products are also cutting budgets... we will have to swallow our margins to just regain again the steady supplies... it is also impossible for us to make plans on our raw component stocks... we are unsure of how the next business cycle and future would look like to be honest..	<i>"Right now the most vital move for us is to manage our financials and reduce our client attrition rates..."; "... we are unsure of how the next business cycle and future would look like..."</i>
Company F	We are purely independent and have not relied on government incentives and loans that much... I would say prudently managing our financials... Capitals and cashflow to be exact. Profits are nowhere to be seen, but as long as we can retain our cash position, we just have to keep doing that during our survival mode now as we cannot rely on the market which is currently being 'shutdown' due to lockdowns etc...	The next business cycle is yet to be defined. We have no clue how things can move in what directions as right now; everything is so uncertain. But I do believe that we need to implement a major transformation to the business, possibly do something online at lower cost of overheads and gain extra exposure and reach... We have always been fond of the Ikea concept whereby; the sales volume is huge, and they are not even a full-scale manufacturer of all of their sold furniture... it's all about branding... and marketing... everybody wants and Ikea furniture and hundreds of people buy their furniture almost every day.	<i>"... we cannot rely on the market which is currently being 'shutdown' due to lockdowns..."; "We have no clue how things can move in what directions as right now; everything is so uncertain. But I do believe that we need to implement a major transformation to the business..."</i>

Company G	If we have steady cashflow and of course revenue through secured construction project awards would keep the company alive... unfortunately now the uncertainty and COVID-19 situation is really bad for us...	The issue for us is securing contract awards and payment milestones... sadly, the current pandemic is causing every project we have been pursuing to be put on hold or cancelled off completely. Unlike big construction companies, we are not able to sustain whilst we wait until the economic situations recover.	<i>"Unlike big construction companies, we are not able to sustain whilst we wait until the economic situations recover."</i>
Company H	Making sure the supply chain is functioning adequately is the key. Material supply and logistics are our key critical paths, hence, even if we receive an order for a small skid fabrication, so long as these items remain accessible, we could at least retain some good profit margin.	It's all about orders for us. We rely heavily on the key national industry players like the national oil company and mega projects to collect healthy profits for supply of fabricated items. Our service contracts are optional and most often are just for long-term and are low profit gains. Right now, nothing seems to move... every project is either on hold or are being called off.	<i>"We rely heavily on the key national industry players... to collect healthy profits for supply of fabricated items. Right now, nothing seems to move..."</i>
Company I	We strongly feel we made the right decision to adopt e-commerce into the business since 2015. Nowadays, the sudden boom of e-commerce platforms is proving to deliver expectations to consumers directly and will be here to stay... All this means is that advanced technology adoption will be the ultimate tool and way forward in managing turbulent business environments.	Access to capitals would be a challenge I believe so. Reason being we expect in the next business cycle to implement our expansion plan, we need to invest in some hardware solutions to ramp up our agritech business model and increase our yield and quality of produce. Next is to get certifications and secure our additional IPs... as far as market is concerned, so long as the distribution centres and logistical services remain operating, we believe the sales volume deficit can be re-established.	<i>"We strongly feel we made the right decision to adopt e-commerce into the business since 2015. Nowadays, the sudden boom of e-commerce platforms.... will be here to stay... advanced technology adoption will be the ultimate tool and way forward in managing turbulent business environments."</i>
Company J	The most critical now is to manage our financials well. Our cashflow is fast decreasing, but our reserves remain sufficient to continue to sustain until COVID-19 disappears... and we hope soon.	It would be an uphill challenge to penetrate key client organisations if we start losing more than 20% our existing install-based service contracts as we move into the next business cycle. Despite the fact that sales and service activities remain halted due to the lockdowns, keeping the contracts alive and not being terminated gives us a chance to jumpstart our aggressive activities once more in the future.	<i>"... keeping the contracts alive and not being terminated gives us a chance to jumpstart our aggressive activities once more in the future."</i>

Q5	MQ5	AQ5	
	How clear is your vision for what strategy needs to be implemented in your organisation in the immediate & longer-term future?	Is the direction that the company wants to go in - clear and realistically achievable?	
Respondent ID	Response to MQ	Response to AQ	Notable Quotes
Company A	Oh well, in the short-term my main aim is to continue to secure (or extend) more consulting services contracts whilst managing with whatever we have and can do... after that, I see we probably need to have more wider coverage into other sectors and secure immediate real opportunity....	It all depends on how well we do now to continue to sustain the workload and costs especially with the uncertainty caused by multiple periods of lockdowns experienced since last year... things keep changing for everyone and we struggle to effectively continue managing our work activities...	<i>"... things keep changing for everyone and we struggle to effectively continue managing our work activities..."</i>
Company B	For us as a company we already have planned out our one-year period strategic activities beginning of this year 2021. As a matter of fact we drafted and set in motion our 3-to-5-year plan last year... we will gauge our expansion planning up to only 5 years for now... however, due to the market uncertainty caused by the pandemic, we also decided to consider a monthly and quarterly	We believe our direction is clear, but we need to move in baby steps... Right now we are undertaking a digital transformation phase, and this include online marketing channels and social media promotional strategy as well... we have also started to organise ceremonial novation and online virtual services to distant relatives in order to adhere to the lockdown policies... so we really need critical skills set to help	<i>"As a matter of fact we drafted and set in motion our 3-to-5-year plan last year... however, due to the market uncertainty... we also decided to consider a monthly and quarterly period of trial execution on certain key initiatives..."; "We believe our direction is clear, but we need to move in baby steps... we really need critical skills set to help"</i>

	period of trial execution on certain key initiatives...	us manage the business in this transition period for us... we are about to go live with our ERP system in about a few months and right now we are still testing it to make sure everyone is on board...	<i>help us manage the business in this transition period...."</i>
Company C	At this instance managing leakages in our financials is our ultimate goal... Unfortunately, not much promotional activities can be done under nationwide lockdown and particularly no visitors coming in from foreign countries. Longer term perspective is still very blurry for us...	Realistically, we want to continue to stay alive and manage the business, so it regains its health as quickly as possible. Unfortunately, as this is the only investment me and my wife has ventured into, we have no other sources of income and have no choice but to decide in the next coming 6-10 months to either stay or move away... and do something else that can generate sustainable revenue for us...	<i>"Longer term perspective is still very blurry for us..."; "...we have no other sources of income and have no choice but to decide in the next coming 6-10 months to either stay or move away..."</i>
Company D	We hope the clarity will come with rewards we expect when things become more stable.... One thing for sure, we will continue to be an F&B service provider, just not the conventional type anymore... we have pretty much evolved... and the time now is for us to concentrate on growing our sales on packed and frozen 'freshly cooked' food...	If we continue to manage our financials well, and increase or at least regain our revenues to levels we used to achieve from before the pandemic, we believe the direction we are heading towards is pretty much clear now... as we speak...	<i>"One thing for sure, we will continue to be an F&amp;B service provider, just not the conventional type anymore..."</i>
Company E	The immediate future will be all about cost management and reducing our liabilities... we can't see the longer-term future yet, unless the COVID-19 virus has truly been neutralised... but we do believe in the intermediate future if we can pull out of our current struggle, we can restart with purely trading business as how we did when we first began...	We have a somewhat clear vision of the direction we need to pursue... hopefully it will be achievable after tweaking some areas... We will gear down and would need to rely on some major organisational and resources restructuring to make this happen...	<i>"... we can't see the longer-term future yet... but we do believe in the intermediate future... we can restart... as how we did when we first began..."; "We will gear down and would need to rely on some major organisational and resources restructuring to make this happen..."</i>
Company F	In the immediate term we are tightening our expenditures and will critically manage our financials and sources of funds in order to survive this damaging wave of change. We are looking to transform how we do business and maybe the business itself... we are not sure yet how but that's the long-term vision... for now...	Right now what we can be clear about is to survive this downfall with a turnaround plan that can keep our heads above water... that's all that matters now...	<i>"We are looking to transform how we do business and maybe the business itself... we are not sure yet how but that's the long-term vision..."</i>
Company G	In the immediate future, it is clear that we have no option but to keep the company dormant without any incurring costs... for longer-term, perhaps we may revive the company when we are able to secure the next available contract award, which is when the market situation improves...	I think we understand the dilemma we are in is serious, and now we are very clear on what need to do... it never occurred to our minds before that only after a few years of start-up we will be in such a tricky position to freeze everything we do, but this is part of our risk mitigation plan...	<i>"In the immediate future, it is clear we have no option but to keep the company dormant... for longer-term, perhaps we may revive the company when we are able to..."</i>
Company H	We are taking advantage of this unforeseen window to tighten up our cost management and reorganising our workshop to improve space utilisations. Despite salary cuts, our employees remain dedicated to deliver their responsibilities. We believe this prepares us for the next window of opportunity to scale up our profits and slowly regain our steady income in the long run.	Yes, we are quite clear on the direction we need to pursue in order to survive this and the next wave of uncertainty. So long as our cash reserves remain intact, we should be able to bounce back into action when the market reopens for us....	<i>"We are taking advantage of this unforeseen window to tighten up our cost management and reorganising..."; "Yes we are quite clear on the direction we need to pursue in order to survive this and the next wave of uncertainty."</i>

Company I	We have always been clear and will continue to be clear on both our immediate and long-term strategies in the business. As mentioned, the planned expansion of the business during the market downturn and uncertain future itself is an opportunity we will tap on based on our crystal-clear judgements on our company vision and mission.	Clear in terms of what we need and expect to do over the period of the next 12-18 months. On whether it will be realistically achievable, we hope so provided the access to capitals and funds are also achievable for our rapid transformation plans.	<i>"We have always been clear and will continue to be clear on both our immediate and long-term strategies in the business."; "... provided the access to capitals and funds are also achievable for our rapid transformation plans."</i>
Company J	The goal is clear for immediate term. We need to reduce costs and retain all existing opportunity secured with ongoing contractual terms. For longer term, once market activities picks-up, we will go aggressive into tactical sales strategy to expand our market share into adjacent spaces in which we have not quite pursued in the past.	I think the direction we intend to go is realistic for us. Maybe in the future when we have stabilised the business and can focus on scaling up growth, we could look into diversification of products and services and possibly become an OEM ourselves.	<i>"The goal is clear for immediate term.... For longer term, once market activities picks-up, we will go aggressive..."; "... we could look into diversification of products and services and possibly become an OEM ourselves."</i>

Q6	MQ6	AQ6	Notable Quotes
	How efficient is your organisation in the implementation of change strategy?	What changes would you make on strategic planning for your company?	
Respondent ID	Response to MQ	Response to AQ	
Company A	We practice what we preach... meaning to say, we believe our lean organisation and workflow helps us sustain our livelihood for now... as far as change strategy is concerned, we are very dynamic and agile... So we can adapt whenever we need to...	I need to hire the right person for the right job and deliver the right results most definitely... for us it comes down to the bottom-line of securing service contracts with established clientele... this ensures steady revenue for us to continue exploring new prospects as well...	<i>"... we believe our lean organisation and workflow helps us sustain our livelihood for now... we can adapt whenever we need to...."</i>
Company B	Whatever that we are currently and already doing, we continue to increase the intensity of our traditional marketing and operational strategies concurrently... We are in fact trying out unconventional things that other companies in this industry have not yet done... we will not be able to disclose this to the public yet...	Another thing that we do to generate and increase the revenue for the company is we are starting to take into account the traditional ethnic celebrations on 'Hungry Ghost Festival' for instance as new sources of revenue by organising related memorial service packages and traditional rituals for families...however, during the lockdown periods as people are not able to physically gather, this value stream has been temporarily impacted...	<i>"We are in fact trying out unconventional things that other companies in this industry have not done yet..."</i>
Company C	For us to change is not a problem. In fact we have demonstrated that we are agile to expand and also downsize at the point of time we needed to implement the necessary changes to the business....	Other than making sure I have only the necessary and required number of staffs now, our main drive is to eliminate incurred costs as much as possible and try to generate income even to break even on a daily basis for the existing remaining facility. Bearing in mind also that although we retain a few numbers of key staff, they are still dormant and not in service because we are not able to operate the accommodation facility without paid reservations...	<i>"... we have demonstrated that we are agile to expand and also downsize at the point of time we needed to implement the necessary changes to the business...."</i>
Company D	We were able to decide on shifting location to a smaller outlet almost instantly after the 3rd lockdown cycle was announced, and within a week we secured the rental so now we will just wait for the renovation to be completed... The deep-freezing equipment were installed after the end of the 1st lockdown cycle as we knew	For us, managing workers would be a major change, whereby, we used to hire foreign nationals in the past to cater for shifts to run the seated-services... now with smaller space, and digitalised ordering systems, customers can order online before they arrive, and even at seated area diners can order meals using online registry linked to our kitchen	<i>"... change strategy implementation is pretty efficient particularly when effective decision is also efficient... and timely..."</i>

	<p>then we needed to stock-up on supplies and ready-made sauces etc... So yes, change strategy implementation is pretty efficient particularly when effective decision is also efficient... and timely...</p>	<p>display, we can optimise the number of staffs and also focus on local staffs because nowadays, plenty of people are also in need of jobs even if on temporary basis.. Customers too now prefer to not leave home unnecessarily so freshly cooked dining experience at their own home is on the rise... so we hope as we focus on this new offering, it will help us in the long run as well...</p>	
Company E	<p>We have been quite effective in the past, but those times the crises were not as destructive as the pandemic... as we speak, we are still in the stage of making the changes in order to survive... We will find out if we are efficient in the implementations right afterwards, in the next 3 years...</p>	<p>First of all what we will do is restructuring of the business entirely and redeploying our resources where we see fitting in the new business model, we will implement...</p>	<p><i>"We have been quite effective in the past, but those times the crises were not as destructive as the pandemic..."</i></p>
Company F	<p>We have faced many strong economic challenges in the past and made major changes to the business operations since our start-up. That being said, we have been a conventional furniture manufacturing company and we will continue to be one... we do perform management changes occasionally but we are not the type of corporate organisation to keep track and prepare reports on change management etc...</p>	<p>The most important change would be on managing internal financial and manpower resources by cutting on wastage and redundancies at the factory. This would help us to reduce and eliminate the risk of further cash depletion. Next, we have to think big to tackle the sales and revenue.... we will do this for a start and play by ear to develop what we need to do next...</p>	<p><i>"We have faced many strong economic challenges in the past and made major changes to the business operations..."</i></p>
Company G	<p>We have always been able to adapt to changes in running our project executions... however, this pandemic is a much different type of change we have never expected... and unfortunately, we just could not say that we are effective in managing this complete 'reverse' of a change we need to do...</p>	<p>I guess in the future once we have been able to revive the business again, we will need to really take into consideration an exit plan that does not entail shutting down the business in an unplanned and unexpected manner... this means we will incorporate in our new business plan the strategic planning for resources allocations for handling of rapid natural disaster situation.</p>	<p><i>"We have always been able to adapt to changes... however, this pandemic is a much different type of change we have never expected...."</i></p>
Company H	<p>We are adaptable and we now know we need to be more resilient to future similar market changes. It takes time before our shareholders agree on the management's decisions, but with the right justifications, we have demonstrated in the past that we have been able to manage change quite effectively.</p>	<p>In the past before the pandemic, we have always been focusing on growth of revenue and market share. The company has always been a traditional company where we provided our products and services directly to the client to receive payments... post COVID-19 the world has completely changed and technology is also more advanced, I think the company can benefit by looking at other business opportunities and possibilities to grow the business...</p>	<p><i>"We are adaptable, and we now know we need to be more resilient to future similar market changes..."</i></p>
Company I	<p>Being an agritech company, the traditional ways of reactivity of an agriculture business was compensated with proactiveness of being a technology proponent and pioneer. We will continue to foster efficiency in managing and implementation of our change strategies as we have always done in the past.</p>	<p>Other than managing financial and other related resource allocations, this time around we would need to incorporate a more strategic focus on branding. This would justify the capital investment plans and take into account our social responsibilities to appeal and appease to our remaining shareholders and stakeholders.</p>	<p><i>"We will continue to foster efficiency in managing and implementation of our change strategies as we have always done in the past."</i></p>
Company J	<p>We'd like to think that we are adaptable and are flexible to implement change particularly now in this current situation.</p>	<p>We will continue with the existing business model of being an agent and channel partner to our principal. As I mentioned earlier about the potential of diversifying the business portfolio, we may start negotiating some strategic initiative with our principal partners on a more significant investment to strengthen our foothold in this regional location.</p>	<p><i>"... we are adaptable and are flexible to implement change particularly now in this current situation."</i></p>

Q7	MQ7	AQ7	
	How do you utilise the external environment information in making decisions on internal resources to help the business improve, stay competitive, and strategically meet goals? (i.e. people, processes, equipment, raw materials etc.)	Do you adopt any systematic approach or systemised applications for resource management? How effective is the management of financials and capitals of the business?	
Respondent ID	Response to MQ	Response to AQ	Notable Quotes
Company A	We use information we learn to continue to be agile and manage according to the business needs and environment we face... for us the key would be to manage our financials and staffs and overheads...	We organise our workforce to meet the workflow processes and we continuously adapt to make sure to retain my 'skeleton team'... right now we had to reduce the salary and allowances to manage our costs... I believe this is temporary and with my key staffs, we can rebuild and expand once the economy recovers...	<i>"We use information we learn to continue to be agile and manage according to the business needs.... We organise our workforce to meet the workflow processes and we continuously adapt to make sure to retain my 'skeleton team'..."</i>
Company B	We admit the legacy and lack of intelligence function in the company was rendering the company to only see only the tip of the iceberg on external environmental factors in the past... information to make decisions were never comprehensive or holistic, and we saw we needed to change that... so by bringing new competent professionals into the company, we believe we will be able to reshape the company and become more 'intelligent' and proactive to changes per se..	Even before the pandemic we have started to improve the productivity of the company with business automation software, and staffs with mobility using laptops and mobile applications... this has proven to be beneficial for us as we have to abide to remote working policies under strict pandemic lockdown control measures... Currently we are also undergoing ERP systems implementations across the whole company which just started about a few months back. This has been planned quite some time ago but this lockdown periods have really provided us with additional focus to drive this ahead with full force.	<i>"... information to make decisions were never comprehensive or holistic, and we saw we needed to change that... by bringing in new competent professionals into the company... we will be able to reshape the company..."; "Currently we are also undergoing ERP systems implementations across the whole company.... this lockdown periods have really provided us with additional focus to drive this ahead..."</i>
Company C	The external information on market and sector health and general developments on international travels are important for us to understand what could happen next and the anticipated time frame of possible return of domestic tourism and travellers for us... way forward for us now is to rely solely on domestic travellers as they are the most immediate access to revenue for us... we believe our current resources are adequate but we continue to hope that our financial standing can continue to last and see us through the next business cycle as well...	We do not specifically have any systemised applications on managing our financials... Although we do employ POS (point of sale) service to capture our reservations and guests payments, it is a basic system but adequate for us. As far as managing the expenditures, we directly track and control the inflow and outflow of our cash between my wife and me as owner-managers... so we both make all the required decisions on spending and the way forward for the business.	<i>"The external information... are important for us to understand what could happen next and the anticipated time frame of possible return of domestic tourism..."; "We do not specifically have any systemised applications on managing our financials..."</i>
Company D	We are continuously on the lookout for external environment changes that could impact the business... it is also important that we prepare in advance to reduce the impact on delivery of orders we received...	We still manually manage our internal resources... we have dedicated staff to do stock checks and perform other key roles and duties.....but I anticipate if the business grows bigger in the future, we may need to adopt some sort of system to manage and track resource deployments... We have been handling our bookkeeping since day one, and this has been working quite well for us.	<i>"We are continuously on the lookout for external environment changes that could impact the business... it is also important that we prepare in advance...."; "We still manually manage our internal resources... in the future... we may need to adopt some sort of system to manage and track resource deployments..."</i>
Company E	Information and understanding of the external business environment are highly crucial for us now especially as we are planning to change the business model soon... with the changes I have just mentioned on the company structure and resources, we would have to do the necessary to	We do employ SAP software license for the business, and it has been useful in our decision-making processes to mitigate associated risks to the business with having a systematic processes and tools in place... having all the crucial data and projections we need in hand is vital for our efforts in	<i>"... understanding of the external business environment is highly crucial for us now especially as we are planning to change the business model..."; "We do employ SAP software license for the business... it has been useful in our decision-making process..."</i>

	meet the company goals to survive this major economic crisis we are in right now...	managing existing financial challenges and allocating capitals for the new business model we plan to implement...	
Company F	We study the market and industry information, including the economic prospect of the country and region and then define what would be the course of actions we would undertake to stabilise the business. To some extent we would use that same information to plan our production schedule and determine the next sales campaign and target revenue to close... in order to move out from this difficulty.	We do not have any particular high-end systems in place, but our accounting records and practices are suited enough to manage our resources allocation or tracking, and budgeting records. Maybe in the future when we go into online platform, we would probably need to consider some sort of resources management system.	<i>"We study the market and industry information... and then define what would be the course of actions we would undertake... in order to move out from this difficulty."; "... our accounting records and practices are suited enough to manage our resources allocation... maybe in the future when we go into online platform, we would ... consider... resources management system."</i>
Company G	External environmental impact has always been what we take into account when we deal and manage our key project executions. Especially in dealing with safety issues and environmental concerns. We build our processes to incorporate all this aspect to gain confidence from our clients and deliver timely projects.	Yes, it's part of our competency requirements to deliver safe construction projects using proper resources management tools to ensure cost effectiveness and to manage our project risks better. Each project financials are managed individually with specific margins accordingly... we have been quite effective in managing projects I would say...	<i>"External environmental impact has always been what we take into account when we deal and manage our key project executions."; "... using proper resources management tools to ensure cost effectiveness and manage our project risks better."</i>
Company H	Information we have gathered on the market changes and uncertainty of sales growth and forecasts, enabled us to make decisions on managing our existing manpower resources and making slight adjustments and improvement to our fabrication facility.	We have in place the SAP system to keep track of our inventories, payments, and suppliers. Overall the management and approval of financial capitals and investments are under my sole responsibility. We also own a few IP, and the General Manager takes custody on managing them. Therefore, we can say we are quite effective in managing our capitals and resources.	<i>"... enabled us to make decisions on managing our existing manpower resources and making slight adjustments and improvements to our fabrication facility."; "We also own a few IP... we are quite effective in managing our capitals and resources."</i>
Company I	Looking back at how we managed the business in the past, we will continue to stay alert for developmental initiatives to continuously improve our business, operations, and profitability. Making use of useful external information such as market trends and drivers, financial and geopolitical issues and many others had help us to make effective decisions better. The resulting outcome then if we continue to do so would be a more effective strategy and ability to meet our goals on expansion.	We have in place the SAP system to track and manage our resources. Although it is an effective tool, the management's strategic decisions on financials and capitals of the business required a more in-depth approach via direct engagements with key stakeholders to be able to see the bigger picture and make the right decisions to achieve the right results we commit to.	<i>"... we will continue to stay alert for developmental initiatives to continuously improve our business...The resulting outcome... a more effective strategy and ability to meet our goals on expansion."; "Although it is an effective tool, the management's strategic decisions... via direct engagements with key stakeholders to be able to see the bigger picture and make the right decisions..."</i>
Company J	We continually gather market intelligence and information about our clients and their strategic initiatives to determine and prioritise opportunities and prospects we need to chase. This would also influence how we manage our internal resources and access to funds. In order to remain competitive and fight against stiff competition, our pricing strategy has always relied on the accuracy of information we gather. This was how we have been steadily growing the business in the past.	Our accounting systems and finance department and staffs takes care of information tracking to manage our internal financials and resources. We have a monthly routine to report back to shareholders and get consensus on our spending... we have been doing things this way effectively and we continue to feel it is working well for us.	<i>"... to determine and prioritise opportunities and prospects we need to chase."; "... we have been doing things this way effectively and we continue to feel it is working well for us."</i>

Q8	MQ8	AQ8	
	Does the business have a clear and organised plan on how to recover the business and advance the strategic objectives over time?	Can you describe the factors influencing this?	
Respondent ID	Response to MQ	Response to AQ	Notable Quotes
Company A	We take a step at a time... right now I am also exploring a more strategic opportunity to secure and grow the business.	Doing things better and more efficiently is a must... but that's mainly on the business operations side of things.... I think and believe our next way forward is to consider the online technology platform for our consulting offerings.... Not sure yet how to do this and how much it will cost me though...	"... exploring a more strategic opportunity to secure and grow the business... doing things better and more efficiently... next way forward is to consider the online technology platform..."
Company B	We strongly believe we need to be more strategic to manage the current world crisis than being predominantly tactical...	Because before we can get down to tactically managing the issues and problems to come, we have to understand better on how to strategically position the business into the future....	"... we need to be more strategic to manage the current world crisis than being predominantly tactical... we have to understand better on how to strategically position the business into the future..."
Company C	We are not yet clear how the future may look like; we want to continue surviving this through and can only hope that there will be some recovery period coming soon.... However, if this crisis continues to prevail for the next 6-10 months... we are afraid that you would probably not be able to make reservations for a stay with us anymore....	The business environment is crucial for us if we need to successfully regain our healthy state of business... unfortunately right now, we have no clue as how things can go back to normal for us... Despite the fact that we are pursuing digital transformation under incentives provided by the government, we still lack real revenue stream because our sector is heavily reliant on actual physical lodgings for our businesses to continue... nobody is going to pay for just a virtual conference or simulation of imagining that you are staying with us!	"... The business environment is crucial for us if we need to successfully regain our healthy state of business... despite the fact that we are pursuing digital transformation... we still lack real revenue stream because our sector is heavily reliant on actual physical lodgings..."
Company D	The plan we have recently organised is pretty much clear for us. What we are doing now and will continue to do is in accordance with our recovery plan...	The future outlook and governmental health policies on restaurant service is very crucial... The future behaviour of future customers are also key influences on whether the objectives we fix now to steer the business forward would be useful for us then...	"What we are doing now... is in accordance with our recovery plan... the future behaviour of future customers are also key influences on whether the objectives we fix now... would be useful for us then..."
Company E	As I have said earlier, we have a clear vision on the path we need to take at this instance.... The next objectives and vision of where we need to be are also clear for us on the intermediate future timeline... we hope the changes we do will create our longer-term objective achievable after the transformation of course...	With adoption of digital technology, I suppose that would be one of the key frontiers we need to embrace for the business... we are building our platform for e-commerce right now.... In fact, we are slowly changing our traditional mindset on the business and what used to work for us... this change in capability in managing the business I hope will get us moving forward and grow again in futures to come...	"... we hope the changes we do will create our longer-term objective achievable... With adoption of digital technology... would be one of the key frontiers we need... will get us moving forward and grow again..."
Company F	We are still working on the implementation plan... Our strategic objective is to survive this bad period by doing what we can to keep the factory and shop lot by not having to dispose the company's assets.	If situation persists, we will need to liquidate the asset and retain our cashflow health and position back for as long as we can in order to pursue the business recovery strategy. We hope to not have to come to this but at this instance, the pressure is building and even many other operators have exited the business to focus on purely staying alive...	"We are still working on the implementation plan... If situation persists, we will need to liquidate the asset and retain our cashflow health..."
Company G	We do what is necessary up until now... the pandemic has taken away livelihood of some of our employees and their families, including our partners and suppliers too... We used to know what we need to do in challenging business situations, but	the uncertainty of the market, the uncertainty of project investment decisions from client organisations, the uncertainty of manpower resources, the uncertainty of executions schedules, the uncertainty of cashflow and reserves..... And the list goes on...	"We do what is necessary up until now... we were never prepared for this..."

	this time around I think the challenge is totally unique... hence, we were never prepared for this...		
Company H	The plan we have rolled-out is effectively part of our recovery plan. Once the market bounces up again, we hope to receive our first order intake and scale up our growth in tandem with future market shifts. The rest we can do is wait for the sun to rise again.	We are fairly sure the client will have to pick up on their already delayed project execution and key activities. Our growth prospects are indeed tied closely to their livelihood and expansion plans.	<i>"The plan we have rolled-out is effectively part of our recovery plan... We are fairly sure the client will have to pick up on their already delayed project execution and key activities...."</i>
Company I	If specific to recovering our sales volume, we are putting a marketing strategy in place to increase promotions to our biggest ticket direct consumers where we can scale up on profitability with removal of the middleman... On retaining the big volumes on contractual supplies, were renegotiating contractual terms to establish better payment milestones and increase orders to scale up on revenue growth.	It all boils down to what value we offer more now than we ever did before.	<i>""It all boils down to what value we offer more now than we ever did before."</i>
Company J	The plan we have generated is pretty clear for us for now.... As mentioned, this way we can continue to move forward during the current upset condition and well into the next market and industry recovery phase...	Although there are still many uncertainties in what the future may hold, we have to remain confident that the situation will improve... it may be a slow pick-up but the chances for opportunities to appear again looks real, so we just need to sustain the current bad weather so to speak.	<i>""Although there are still many uncertainties in what the future may hold, we have to remain confident that the situation will improve..."</i>

Q9	MQ9	AQ9	
	Is the company and business sustainable for now, 3 years from now, and 5 years in the future? What do you think would be the key factors influencing your business continuity?	Is the organisation putting the right amount of planning & effort into initiatives today that would bring the company to the desired future?	
Respondent ID	Response to MQ	Response to AQ	Notable Quotes
Company A	Yes, we need to and will continue to be sustainable for the next 5 years and more... despite the hiccups and crises we face nowadays, we believe being lean and continuing to be agile and resilient is the key...	We have an extremely limited resources to specifically assign focus on strategic planning stuffs... It boils down mainly to how much revenue we can continue to secure and how the cashflow is managed better.... But we are persevering to retain our market position with 'effective pricing' strategy to meet the client's pockets per se....	<i>"... despite the hiccups and crises we face nowadays, we believe being lean and continuing to be agile and resilient is the key... "; "We have an extremely limited resources to specifically assign focus on strategic planning stuffs..."</i>
Company B	It's a combination of few factors, for instance, 2 years ago the company size is not as big as now...our structure has also increase significantly with additional hierarchies reporting back to the shareholders unlike previously done whereby, the owner-shareholders are running around chasing revenue and operating the business. We now have delegated specific tasks with implemented new SOPs and improvements in processes and work-machines to encourage mobility for each respective staffs in the company.	We believe that the small progression and development we have put into by making stepwise changes to people hiring process and equipment improvements are the precursors to taking the business to our desired future state... We are now starting to build the foundation of positive cultures in our organisational structures whilst also increasing the accountability of staffs in their roles to increase their performance and effectiveness of the company strategy in line with the internal investments we have already imitated...	<i>"We believe that the small progression and development we have put into by making stepwise changes... are the precursors to taking the business to our desired future state...."</i>

Company C	We have been lucky to have sustain until now, although we have plenty of scars to show... but 3 years... 5 years... we have no real sight on those period and timeline just yet... unless we change our business model... but that would mean that we would be doing an entirely different business and possibly be in a different sector altogether.	Yes, we do and we are trying our best to plan and put the right effort to bring back the company to where we used to be prior to the pandemic. We continue to also seek advice from local authorities and SME bodies to foster and receive guidance from small budget hotel operators community on how to recover revenues and profitability for the business... these are some of the strategic actions we can do for now....	<i>"... we have no real sight on those period and timeline just yet... unless we change our business model...."</i>
Company D	We need to sustain this new approach in driving the business forward... and become sustainable...if we do this well and our formulae is right, we should be in a better position and grow our revenues 5 years from now and well into the next 10 years...	I'd like to believe we have put more than enough planning and effort since the last 10 months to drive this new strategy... We hope to make it and we will make it work...	<i>"... we have put more than enough planning and effort since the last 10 months to drive this new strategy... we hope to make it and... make it work..."</i>
Company E	If we don't change the business modus of operandi we would be out of business and we would not be able to recover post COVID-19... the one main reason we are seriously considering a business model change is to ensure business continuity for the next 3, 5 and many more years to come... this also means that we might very well end up refocusing strategy as a slightly different sector player as we move away from directly blending our chemicals products..	Yes, indeed we are... we have to restructure the business and entire organisation in order to sustain the current position and hope to pick-up steadily over the next 3 years again...	<i>"If we don't change the business modus operandi we would be out of business... and not be able to recover post COVID-19..."</i>
Company F	The business will be sustainable once we manage to recover from this current situation... on whether it will be or not in the next 3 and 5 years into the future, I just cannot tell... The change in new normal lifestyle is becoming more apparent as people go for minimalistic and simplicity, and everything is done virtually...this would be the next theme of the furniture industry... functionality of furniture design and built is also changing as many companies have employees fully working from home nowadays...	At present, we have no additional or specific masterplan to change the business since we are maximising effort to ensure employment for remaining employees and reducing loss. We understand our current limitations and we will make future allocations on planning once we succeed on this.	<i>"At present, we have no additional or specific masterplan to change the business... we understand our current limitations and we will make future allocations on planning..."</i>
Company G	We are not able to sustain our operations for now, and we are deciding to freeze the company until further notice. AS far as business continuity is concerned, we will only be able to take into account different approach to strategy making once we take-off once again after things stabilise...	As the shareholder and director of the company, I strongly believe we are and have put in the appropriate measures to ensure that the next desired future could be re-establish when the time permits.	<i>"We are not able to sustain our operations for now, and we are deciding to freeze the company until further notice..."</i>
Company H	We just need to continue being resilient to go through the current challenge. 3 years from now we believe we can start scaling up on profit to retain our steady income. 5 years ahead we think we can sale up growth particularly in our service contracts in which we will now need to reconsider the business model for that to add more value and ensure retention...	Where we are right now is truly also taking a step back to reflect on what we need to do to reinforce the business. Like a blessing in disguise, although it is painful to go through, we are trying to make the best out of our dormant position to improve our internal asset and facilities.	<i>"We just need to continue being resilient to go through the current challenge... we are trying to make the best out of our dormant position to improve our internal asset and facilities."</i>
Company I	Yes, and in fact, we hope to continue to grow and sustain our growth well into the periods of 10 years or more by continuously being innovative.	We have a dedicated hands-on management team who also are able and competent in performing operational tasks in our farms. This is one of the key and valuable assets for the business in terms of invaluable experience and competency to manage every aspect of the business and take us to where we need to be in 10 years from now.	<i>"We have dedicated hands-on management team who are also able and competent in performing operational tasks... This is one of the and valuable asset for the business...."</i>

Company J	We think we can manage our sustainability for this period and well into the future as well... the next question for us is where do we go to next to grow? AS far as business continuity, we shall continue to be in this business as the solutions and services we are offering is still in demand from key players in the oil & gas energy sector.	Adequate planning is already in place, considering the current limitations we face. To take things up a notch in the future, I believe the next planning cycle would be the ultimate deciding factor if success is within our reach... But that can only happen when we see some light out of this tunnel, we are in now.... post COVID-19 that is...	<i>"As far as business continuity, we shall continue to be in this business as the solutions and services we are offering is still in demand...."</i>
-----------	---	---	---

Q10	MQ10	AQ10	Notable Quotes
	What are the main challenges to establish strategic decision-making in your organisation?	How would you immediately improve the processes now?	
Respondent ID	Response to MQ	Response to AQ	
Company A	I guess I'm stuck with making all the SDM myself... my team are pretty much my workers and they rely solely on my directions and instructions... we are really a small consulting outfit as far as organisational size is concerned... Hence, we do not have the privilege of dedicated managers to delegate crucial SDM tasks.	We would need to continue like this until we can be affirmed and assured of business certainty in the future to add more people and structure in my organisation... However, my staffs do provide ideas and inputs for me to take-on and decide on critical matters...	<i>"... we do not have the privilege of dedicated managers to delegate crucial SDM tasks..."</i>
Company B	Two things we consider are the inside-out and outside-in perspectives on this.... The inside-out are pretty much all the changes we have started to roll out to improve our company structure and business... the key challenges then were to convince our shareholders on making the capital investment. On the outside-in perspective, which involves external factors, key competition and maintaining our market share... on this aspect, we are still considering alternative sources to improve the level of information we require to decide on additional areas we may have overlooked.	Well, the fact that the company started hiring competent professional candidates to manage certain aspect of the business was a testament to improving our organisational configuration and SDM processes... it's more like each division are running their own mini franchise so to speak. Moving forward we hope to gain efficiency via the improvement initiatives we have employed.	<i>"... the key challenges then were to convince our shareholders on making the capital investment.... we are still considering alternative sources to improve the level of information we require to decide..."</i>
Company C	Strategic decisions for the business and organisation in its current state now means that as the owner-manager, retaining the value of invested capitals as much or as long as possible... eliminating unnecessary cost incurred and maximising my resources to be used effectively is most critical...	I guess improvement in managing resources for the business would help optimise what we do right now, it has come across my mind that all is becoming increasingly frail because of the nature of the business... The business model of lodgings and accommodations itself... it may be well different if our business were completely a different business - if we were a medical clinic for example, we may not have suffered so much right now I think....	<i>"Strategic decisions for the business and organisation in its current state now means.... Eliminating unnecessary cost incurred... improvement in managing resources for the business would help optimise what we do right now..."</i>
Company D	Our strategic decisions are very informal indeed, as it relied on just the two partners and equal shareholders... If there are any challenges, it would be to make a timely decision and sticking to it...	Maybe someday in the future once our operations grow, we would probably need to establish a more formal process to ensure continuous improvements...	<i>"... we would probably need to establish a more formal process to ensure continuous improvements..."</i>
Company E	The main challenge right now is that we have to consistently and persistently keep the business and employees alive... immediate decisions do come in handy but strategic decisions are meant to cater for longer term impact, and balancing these two right now is really not easy especially when we are struggling to survive...	We would have a flatter organisation once we restructure, and with the blending facility downsizing, refocusing attention on managing strategic issues and problems would be improved as we reduce the stress levels having to deal with technical and operational issues concerning wastage and scheduled waste etc at the blending facility...	<i>"The main challenge right now is that we have to consistently and persistently keep the business and employees alive... we would have a flatter organisation once we restructure..."</i>
Company F	We recognise that we were completely unprepared and continue to have extremely limited access to funds,	We must become more resilient and increase our knowledge on how to Rebound. In my opinion, the most	<i>"We recognise that we are completely unprepared and continue to have extremely</i>

financial resources, and capacity to cope with severe conditions such as this pandemic... we thought we have seen difficulties and challenges in running the business but this one caught us completely off-guard.

immediate improvement is on the company's decision to turnaround in the current downturn.

*limited access to funds, financial resources and capacity to cope with severe conditions..."; "... the most immediate improvement is on the company's decision to turnaround in the current downturn."*

Company G	Based on past accounts, I guess because we are always dealing with project tot project basis, all our planning has always been short-term oriented with fixed targets to secure the next job with profit margins... we realised now that we have to start preparing for an uncertain future rather than we what have always been used to...	We will take this 'hibernation' time off to reconsider our management perspectives on running the business for long-term continuity rather than merely fixated on running project executions style mentality...	<i>"... all our planning has been short-term oriented... we have to start preparing for an uncertain future rather than what we have always been used to..."</i>
Company H	We have always been projects driven and we managed our internal processes and resources to suit the outcome of our delivery to clients. Every strategic plan was to manage risks on each project every single time and they were all short-term based... maybe now is time to reflect on a strategic decision for longer term.	Management involvement is crucial, despite them being consistently involved in decision-making, this time around we are making sure we need to consider half-annual engagements with shareholders on more strategic decisions on long-term future so that we can become more prepared for instances like this COVID-19 event.	<i>"Every strategic plan was to manage risks on each project... and they were all short-term based... Management involvement is crucial... on more strategic decisions on long-term future so that we become more prepared for instances like this COVID-19 event."</i>
Company I	I think the main challenge would be the external key environmental challenges which is the uncertain market conditions and shifting consumer behaviours which affects the supply chain in the agricultural sector.	In order to manage risks better, as a company, we are continuously improving our processes and mindset by staying vigilant to changes that occurs around and within our business ecosystem.	<i>"In order to manage risks better... we are continuously improving our processes and mindset by staying vigilant to changes...."</i>
Company J	The main challenge is to get the consensus and approval from our shareholders. They do not necessarily understand deeply the nature of clients we have to deal with. On most occasions, I would have to justify and commit to results to make sure that key strategic decisions can be implemented without contest.	Our shareholders are now also aware that doing things the old way may not necessarily work anymore and that new norms are in... I think one way we can improve is to ensure continuous and regular engagements with key stakeholders to keep everyone aware of decisions we need to take in advance before similar disruptions happen again and cause major impact to our profitability and sustainability.	<i>"The main challenge is to get the consensus and approval from our shareholders... to keep everyone aware of decisions we need to take in advance before similar disruptions happen again..."</i>

Q11	MQ11	AQ11	Notable Quotes
	In your experience, are initial decisions coming from leadership roles in your company set in stone?	What are the company's long-term vision that is reflected in its short-term priorities?	
Respondent ID	Response to MQ	Response to AQ	
Company A	It really depends on the circumstance... to a certain extent, on client offerings - yes, whereas, on operational/admin matters we would decide as a team... but like I said before, we are agile, and we can dynamically adjust to situations...	Steady revenue, steady cashflow... achieved by steady value streams for business continuity... staying alive and continuously grow the business is our key focus at the moment... We are also looking into creating a greater impact to the industry by working closely with industry regulating bodies...	<i>"... on operational/admin matters we would decide as a team... staying alive and continuously grow the business is our key focus at the moment..."</i>
Company B	Leadership role is clearly the most important aspect in terms of driving our expansion successfully... It's a combination of having the right leader with the right motivation in our steering committee to drive strategic decisions for the company.... Our key focus now is to complete our strategic change	We are indeed actively and concurrently looking at the short and long term priorities to sustain and grow the business... for example, in case there will be another major nationwide lockdown, I'm glad to mention that we are quite prepared to continue to day-to-day running of the business as we are	<i>"... management's decisions are vital to trigger this to enable us to be more versatile and agile... we are actively and concurrently looking at the short- and long-term priorities...."</i>

	implementations and the management's decisions were vital to trigger this to enable us to be more versatile and agile...	already prepared much earlier with mobility of work-machines and online applications and server access... this is just one of the key capabilities we are starting to see being improved which will ensure our business continuity into the uncertain future..	
Company C	As owner-managers, we make decisions entirely upon a needs basis... Hence, decisions can change when situations occur which necessitates change on the initial decisions we have made.	To survive... to continue the business... and to manage our resources more effectively before the next wave of turbulent environments appear again.	<i>"As owner-managers, we make decisions entirely upon a needs basis... to survive... to continue the business... and to manage our resources...."</i>
Company D	I wouldn't say set in stone, more like set in motion... yes, as the owner our decisions are final and we will implement what we need to do as key actions... however, if we need to alter any decisions along the way, we will also do that... so it all depends...	Business survival... we no longer can look for a 'business as usual' as we are undergoing major transformation with the new norm... this also means that we need to consistently evolve and lookout for different types of opportunities.	<i>"... we need to consistently evolve and lookout for different types of opportunities."</i>
Company E	Not at all. We need to be versatile to accept dynamic changes and that comes with dynamic strategies which must continually and iteratively change... the fact that the future is uncertain for us, no one decision is fixed for life so to speak...	I think the fact that the company must be dynamic and embrace change... this is reflected in the fact that we are transforming the business model, well tweaking it... although it seems like we are taking a step backward as in moving back to trading centric routines, with interest to retain and manage our internal resources and capitals this way we can become more future-resilient...	<i>"... the future is uncertain for us, no one decision is fixed... the company must be dynamic and embrace change..."</i>
Company F	To a certain extent it needs to be or otherwise nothing seems to move. We have been very flexible as well in managing the distribution of our end products, but it also boils down to management's decisions to be implemented by our employees.	A fast and effective recovery of revenues in order to allow the company to retain remaining workforce to resume full operations once we are able to. Our long-term vision can only go up to the next 12 months as we are still discovering what type of change would be necessary for our major turnaround.	<i>"We have been very flexible... but it boils down to management's decisions to be implemented by our employees... our long-term vision can only go up to the next 12 months as we are still discovering what type of change would be necessary for our major turnaround."</i>
Company G	The decisions we make as owners of the company is always for the best to keep the business profitable and steadily increasing over time... We can adapt and will continue to adapt to situations that arise when we have to...	Again, to ensure a steadily increasing revenue and profit generation... although this is a long-term vision, at this stage the fact that we are even doing what we need to is to ensure that we can go back to doing what we need to do again in the realistic future...	<i>"We can adapt and will continue to adapt to situations that arise... we are even doing what we need... To ensure that we can go back to doing what we need to do again in the realistic future...."</i>
Company H	The company's management decision is based on the business projections and opportunity landscape... we seldom change directions until we deliver results. However this was in the past... perhaps now we need to consider being flexible by robust at the same time...	Firstly is to survive the uncertain period. This is our short-term mission. Our long-term mission is also to survive in any challenges the future brings, whilst continue to grow either vertically or horizontally...	<i>"... we seldom change directions until we deliver results. However, this was in the past... our long-term mission is also to survive... whilst continue to grow either vertically or horizontally..."</i>
Company I	We believe that as a company we must consistently be innovative to stay alive. This means that decisions at leadership levels must reflect the dynamic transitions we face, and we must adopt. So change can occur and be achieved.	To continue being an innovative company and delivering a significant contribution to the Malaysian agricultural sector.	<i>"... as a company we must consistently be innovative to stay alive... decisions at leadership levels must reflect the dynamic transitions we face, and we must adopt."</i>
Company J	It used to be... but now we don't think that is going to get us far... the world has changed and technology adoptions are a must... I keep telling my staffs now that if we don't change, then we will be changed (or replaced) ...	The goal of being able to sustain the business now and carry it into the future and make it grow again is the ultimate short-term and long-term priorities for us.	<i>"... the world has changed and technology adoptions are a must... if we don't change, then we will be changed (or replaced) ..."</i>

Q12	MQ12	AQ12	
	What do you think could negate the impact of current management's decision on strategy implementations in the next business cycle?	How proactive is the business and its leadership to identify and implement change?	
Respondent ID	Response to MQ	Response to AQ	Notable Quotes
Company A	Well, it all comes down to the real deal of managing financials and team resources for us... This question sounds like what happens if I make the wrong decision... to be honest, as we want to continue to sustain the business, we also want to grow... to make sure all things work out well for the company, it boils down to how effective my team performs and follow my lead... as well as how well I lead them too...	Unfortunately, we tend to be reactive to market changes... this is also mainly due to the fact that our limited resource team tend to fully embed ourselves into the client business and organisation that we somehow rather, unintentionally neglect to specifically focus on our own... This doesn't mean that we are not competent to manage change, it's more like - we are in a difficult position of balancing our capabilities and abilities to always be alert and prepared to change with current limitations per se...	<i>"... it boils down to how effective my team performs and follow my lead... we tend to be reactive to market changes... we are in a difficult position of balancing our capabilities and abilities to always be alert and prepared to change...."</i>
Company B	We know for sure that we need to be prepared for many more uncertainties in the future, however, we must admit that we as a company we still have a long way to go about effectively implementing our current changes and strategy...	At this moment we are still organising ourselves internally and we hope that once we become more efficient, we can be even more proactive to determine our future strategies. So I guess we will definitely need to keep repeating the whole cycle and process of decision-making or continuously navigate through our transformation journey... by determining how and what else can we do to better create value offerings, increase generation of revenue, and continue being in this business...	<i>"... as a company we still have a long way to go about effectively implementing our current changes and strategy... once we become more efficient, we can be even more proactive to determine our future strategies."</i>
Company C	If the sector recovery is lagging behind in terms of what we anticipate... Then every decision we put in now would be ineffective, meaning the outcome of strategy we implement now would be negative... that would only mean that we would probably have to exit the business then...	I guess we have learned so much on the importance of being agile to manage the profitability of our business... This time around, as change itself is very subjective and rapid...being proactive and agile in managing the business we are in alone is not enough, we need to be ready for a different kind of change and possibly look into possible a new type of business... a hybrid kind... not so sure what that is yet... but that kind...	<i>"If the sector recovery is lagging behind in terms of what we anticipate... the outcome of strategy we implement now would be negative...we would probably have to exit the business, then..."</i>
Company D	If we decided to call-it off and change the business entirely, then that would probably be a major deviation to what we have planned to do... for example, if my partner and I decide to do a laundry business instead, then our implementation for this business will no longer be relevant.	Being entrepreneurs, we consistently lookout for the next opportunity to generate wealth... our proven experience in running the restaurant has been acquired over long periods of business ups and downs and we are competent in this line... however, if the conventional restaurant model proves to be a 'sunset' industry, then its either we change our ways and mindset, or it would be due time for us to change our business entirely.	<i>"If we decided to call-it-off and change the business entirely... the conventional restaurant model proves to be a 'sunset' industry..."</i>
Company E	If the implementations of our change strategy were to become successful, we would need to continue being adaptable to whatever disruptions that may come, and make incremental changes continually... thus far, nothing has been more disruptive than this COVID-19 situation. However, if we continue to stay alert and versatile, we should be able to learn from this experience on what to prepare should we come across similar crisis for survival...	The COVID-19 has truly put everyone on the spot. Not many businesses were prepared, we certainly were not prepared for such an unprecedented disruption in our business which had also affected the entire business world. At the shareholder and senior leadership level in the company we are more aware now that we must consistently be prepared to face any type of crisis even ones that may not be conventionally related to the nature of our business and sector... this would be an entirely additional management competency the organisation needs to fulfil this point forward...	<i>"... we need to continue being adaptable... and make incremental changes continually... we certainly were not prepared for such an unprecedented disruption in our business..."</i>

Company F	<p>If a major disruption which is beyond any of our business control ever comes again in the same form of lockdown and complete stoppage to logistical supplies and distribution... then whatever plans, we have and are about to implement can be affected and possibly not work. Additionally, if resources run out for us, then that would also significantly impact whatever decisions we make now...</p>	<p>We have learned that we need to be more proactive to changes we have never came across in our business... this also means that we need to acquire new knowledge and information, do things in a different way perhaps, to help us sustain the business... Change is always very difficult for our type of business, but if we don't change then we would certainly be out of business now.</p>	<p><i>"... we need to be more proactive to changes we have never come across in our business... we need to acquire new knowledge and information...."</i></p>
Company G	<p>The only thing we believe could reverse our current decisions to implement this 'hibernation' stage for the company is when things become certain once more... or if we are able to secure a few project awards in the next few months or so... Other than that, our current strategy implementation should stay firm.</p>	<p>Perhaps, this decision we are undertaking is part of being proactive to the current situation we are in, in anticipation of what is to come next... we will learn from this hands-on experience on how to manage risks and uncertainty better for the business in the future.</p>	<p><i>"... we will learn from this hands-on experience on how to manage risks and uncertainty better for the business in the future."</i></p>
Company H	<p>I personally think if we implement the right strategy and decisions, the outcome would be positive in meeting our current goals and objectives. This means that decisions we make now must be based on facts and figures we can control. Only then we can attempt to face the external environment which is beyond our control and at least be able to ensure our survival and growth.</p>	<p>We are taking steps and measures now to ensure that management is more proactive to changes and the implications of unprecedented risks. Moving forward, we believe this would position the company to be more versatile and agile to meet and deliver unexpected changes.</p>	<p><i>"... decisions we make now must be based on facts and figures we can control... to be more versatile and agile to meet and deliver unexpected changes"</i></p>
Company I	<p>As mentioned earlier, the challenge on getting access to capitals and funds to implement the transitional phase of our expansion plan is the most critical path for the company. Despite that, the plan will continue, we will just have to around the bend to resolve it if it comes.</p>	<p>We will continue to strive for excellence by being an innovative agritech company and possibly one day, even go for listing and focus merely on technology development for the agricultural industry.</p>	<p><i>"... the challenge on getting access to capitals and funds... is the most critical path for the company.... We will continue to strive for excellence by being an innovative agritech company..."</i></p>
Company J	<p>It all also depends entirely on the individual resilience of our shareholders. If they in any case decide to exit the business due to some major issues affecting them elsewhere, then the company funds will be greatly jeopardised... in my opinion, only in the event of such instances, then whatever we have planned and in set in motion could be turned to dust.</p>	<p>We are becoming more proactive now in terms of identifying and implementing change. We never did in the past because we never really needed to. The market was very mature for us in the past and we were pretty much at the top of our game. When COVID-19 appeared, we realised that the indirect threat to the business is also a direct threat to us. So now we must always be prepared for even the slightest change to come.</p>	<p><i>"The market was very mature for us in the past... When COVID-19 appeared, we realised that the indirect threat to the business is also a direct threat to us."</i></p>

### Appendix B3: Datasets on Coded Responses based on Qualitative Interview Questions

Q1	Theme 1			Theme 2			Theme 3			Theme 4			Theme 5			Theme 6			Theme 7			Theme 8			Theme 9			Theme 10			Theme 11			
Respondent ID	B1	C1	D1	B2	C2	D2	B3	C3	D3	B4	C4	D4	B5	C5	D5	B6	C6	D6	B7	C7	D7	B8	C8	D8	B9	C9	D9	B10	C10	D10	B11	C11	D11	
Company A	1			1					1		1				1	1		1			1				1	1				1				
Company B	1	1		1					1	1					1	1			1			1			1	1		1	1		1		1	
Company C	1		1						1	1					1		1	1						1			1	1				1		
Company D	1	1		1					1	1					1		1		1					1			1	1				1		
Company E	1			1					1	1					1	1			1					1	1			1				1		
Company F	1			1					1	1					1	1			1			1		1	1			1				1		
Company G	1	1				1			1	1					1		1	1				1	1	1			1				1	1		
Company H	1	1	1						1	1					1	1			1			1	1	1			1				1	1		
Company I	1	1		1				1			1		1		1		1	1	1			1			1	1			1				1	
Company J	1		1						1	1					1			1	1			1	1	1			1					1		

Q2	Theme 1			Theme 2			Theme 3			Theme 4			Theme 5			Theme 6			Theme 7			Theme 8			Theme 9			Theme 10			Theme 11			
Respondent ID	B1	C1	D1	B2	C2	D2	B3	C3	D3	B4	C4	D4	B5	C5	D5	B6	C6	D6	B7	C7	D7	B8	C8	D8	B9	C9	D9	B10	C10	D10	B11	C11	D11	
Company A				1					1	1		1			1				1					1	1			1			1			
Company B				1			1			1						1	1		1					1	1				1	1			1	
Company C				1					1	1						1	1		1					1	1			1				1		
Company D				1			1			1	1				1		1	1	1	1		1		1	1				1	1			1	
Company E				1					1	1					1			1		1			1	1			1					1		
Company F				1					1	1					1			1		1	1			1	1			1	1			1		
Company G				1					1	1					1			1		1	1			1	1			1				1		
Company H	1			1	1				1	1					1	1			1		1			1	1		1	1				1		
Company I		1	1		1		1	1			1	1		1			1	1		1			1	1		1			1	1			1	
Company J		1	1	1					1	1						1	1			1	1			1	1			1	1			1		

Q3	Theme 1			Theme 2			Theme 3			Theme 4			Theme 5			Theme 6			Theme 7			Theme 8			Theme 9			Theme 10			Theme 11				
Respondent ID	B1	C1	D1	B2	C2	D2	B3	C3	D3	B4	C4	D4	B5	C5	D5	B6	C6	D6	B7	C7	D7	B8	C8	D8	B9	C9	D9	B10	C10	D10	B11	C11	D11		
Company A		1		1	1				1		1		1			1			1			1				1	1					1			
Company B		1			1			1		1		1	1	1		1	1			1			1		1	1			1			1			
Company C		1		1					1	1						1	1					1			1			1	1				1		
Company D		1		1			1	1			1	1	1	1		1	1		1	1			1		1		1		1	1			1		
Company E	1			1					1	1						1	1		1				1		1		1	1					1		
Company F	1			1					1	1						1	1		1		1			1		1	1			1			1		
Company G		1	1	1					1	1						1			1			1		1		1	1						1		
Company H	1	1		1					1	1						1			1			1		1		1	1						1		
Company I		1	1		1			1			1	1	1	1			1	1	1	1			1	1		1			1	1	1			1	
Company J		1		1					1	1						1	1		1				1	1		1			1				1		

Q4	Theme 1			Theme 2			Theme 3			Theme 4			Theme 5			Theme 6			Theme 7			Theme 8			Theme 9			Theme 10			Theme 11					
Respondent ID	B1	C1	D1	B2	C2	D2	B3	C3	D3	B4	C4	D4	B5	C5	D5	B6	C6	D6	B7	C7	D7	B8	C8	D8	B9	C9	D9	B10	C10	D10	B11	C11	D11			
Company A				1					1		1		1					1	1	1			1	1	1	1				1	1		1			
Company B				1					1		1		1		1	1	1	1	1			1		1	1	1			1	1			1			
Company C				1					1	1						1	1		1					1			1	1					1			
Company D				1			1			1	1		1	1		1	1		1		1	1		1	1	1		1	1				1			
Company E				1					1	1						1	1		1				1	1	1		1	1					1			
Company F				1					1	1						1	1		1		1			1	1		1	1					1			
Company G				1					1	1						1			1	1				1	1		1							1		
Company H				1			1		1							1	1		1				1	1		1	1						1	1		
Company I				1		1				1	1	1	1				1	1	1	1		1	1	1		1	1					1	1		1	
Company J				1					1	1						1			1	1	1	1	1	1		1	1	1	1	1	1		1	1		

Q5		Theme 1		Theme 2		Theme 3		Theme 4		Theme 5		Theme 6		Theme 7		Theme 8		Theme 9		Theme 10		Theme 11												
Respondent ID		B1	C1	D1	B2	C2	D2	B3	C3	D3	B4	C4	D4	B5	C5	D5	B6	C6	D6	B7	C7	D7	B8	C8	D8	B9	C9	D9	B10	C10	D10	B11	C11	D11
Company A		1		1				1		1					1			1	1					1	1			1					1	
Company B		1			1			1		1		1		1	1			1	1					1	1		1	1					1	
Company C			1	1				1		1	1	1			1			1	1		1	1			1	1			1				1	
Company D		1			1			1		1				1	1			1	1		1		1	1			1		1		1		1	1
Company E		1			1			1		1				1	1			1	1	1				1			1	1	1			1	1	
Company F		1		1	1			1		1	1				1			1	1		1		1		1	1			1			1		
Company G			1	1			1	1		1	1				1	1			1	1		1			1	1			1			1		1
Company H		1			1			1		1					1	1	1		1	1	1			1	1	1		1	1	1		1	1	1
Company I			1		1			1				1	1	1	1			1	1		1			1			1			1	1	1	1	1
Company J		1			1			1		1					1	1			1	1	1			1	1		1	1	1	1		1	1	1

Q6		Theme 1		Theme 2		Theme 3		Theme 4		Theme 5		Theme 6		Theme 7		Theme 8		Theme 9		Theme 10		Theme 11												
Respondent ID		B1	C1	D1	B2	C2	D2	B3	C3	D3	B4	C4	D4	B5	C5	D5	B6	C6	D6	B7	C7	D7	B8	C8	D8	B9	C9	D9	B10	C10	D10	B11	C11	D11
Company A		1			1			1	1	1					1	1		1		1		1		1			1		1				1	
Company B		1			1			1				1			1			1	1		1		1	1			1			1	1			1
Company C								1	1	1					1	1		1	1		1			1			1	1	1			1	1	
Company D		1	1		1			1			1	1			1	1	1	1		1	1		1	1		1		1		1	1		1	1
Company E		1	1	1		1	1		1	1		1		1	1	1					1			1			1	1	1				1	
Company F		1		1				1	1	1		1			1			1		1	1	1		1			1	1	1			1	1	
Company G		1		1				1	1	1		1			1	1		1	1		1		1			1		1	1			1	1	
Company H		1		1				1	1	1					1		1	1	1	1			1			1		1	1			1	1	1
Company I		1	1		1			1				1	1	1	1			1	1		1			1			1			1	1	1	1	1
Company J		1			1			1	1			1	1	1			1	1	1	1		1		1			1			1			1	

Q7		Theme 1		Theme 2		Theme 3		Theme 4		Theme 5		Theme 6		Theme 7		Theme 8		Theme 9		Theme 10		Theme 11												
Respondent ID		B1	C1	D1	B2	C2	D2	B3	C3	D3	B4	C4	D4	B5	C5	D5	B6	C6	D6	B7	C7	D7	B8	C8	D8	B9	C9	D9	B10	C10	D10	B11	C11	D11
Company A					1					1	1					1	1			1			1					1	1				1	
Company B						1			1			1				1	1					1		1			1				1			1
Company C					1					1	1					1			1			1			1			1	1				1	
Company D						1			1		1					1	1				1		1		1			1	1				1	
Company E					1		1		1	1					1	1	1			1			1		1		1		1				1	
Company F		1			1			1				1		1				1		1	1				1			1	1	1		1		1
Company G			1		1			1	1						1		1		1		1			1				1	1	1		1		
Company H			1		1			1	1						1		1	1	1					1			1	1	1				1	
Company I					1			1				1	1	1			1	1		1			1			1	1	1			1			1
Company J					1				1	1					1	1			1		1			1			1	1	1				1	

Q8		Theme 1		Theme 2		Theme 3		Theme 4		Theme 5		Theme 6		Theme 7		Theme 8		Theme 9		Theme 10		Theme 11												
Respondent ID		B1	C1	D1	B2	C2	D2	B3	C3	D3	B4	C4	D4	B5	C5	D5	B6	C6	D6	B7	C7	D7	B8	C8	D8	B9	C9	D9	B10	C10	D10	B11	C11	D11
Company A		1			1			1				1			1		1				1		1		1		1	1			1			1
Company B					1			1			1			1			1			1		1	1		1		1				1			1
Company C		1		1				1		1		1		1				1			1	1		1			1			1			1	
Company D		1			1			1			1			1			1				1	1		1	1		1			1			1	
Company E					1		1			1				1			1				1		1		1		1		1				1	
Company F		1			1				1	1					1			1		1		1			1	1		1			1		1	
Company G			1	1	1		1			1	1				1			1	1					1			1	1	1			1		1
Company H		1			1			1		1					1			1	1	1				1			1	1	1				1	
Company I					1			1			1			1			1			1				1			1			1			1	
Company J		1			1				1	1					1			1	1	1					1	1		1			1			1

Q9		Theme 1		Theme 2		Theme 3		Theme 4		Theme 5		Theme 6		Theme 7		Theme 8		Theme 9		Theme 10		Theme 11												
Respondent ID		B1	C1	D1	B2	C2	D2	B3	C3	D3	B4	C4	D4	B5	C5	D5	B6	C6	D6	B7	C7	D7	B8	C8	D8	B9	C9	D9	B10	C10	D10	B11	C11	D11
Company A			1		1					1	1					1			1	1					1			1	1			1		
Company B						1			1		1			1			1			1		1		1			1			1				1
Company C				1	1					1	1					1			1		1	1			1	1			1			1		
Company D			1			1			1		1				1				1		1	1			1			1			1			1
Company E			1		1			1			1				1				1	1				1		1		1			1			1
Company F		1			1					1	1					1			1			1			1		1		1		1			1
Company G							1			1	1					1			1	1				1	1				1				1	
Company H			1		1				1	1				1		1			1		1		1		1		1	1	1			1		
Company I				1	1			1				1	1		1			1	1		1	1			1	1					1	1		1
Company J			1		1				1			1				1	1			1				1			1		1		1			1

Q10		Theme 1		Theme 2		Theme 3		Theme 4		Theme 5		Theme 6		Theme 7		Theme 8		Theme 9		Theme 10		Theme 11												
Respondent ID		B1	C1	D1	B2	C2	D2	B3	C3	D3	B4	C4	D4	B5	C5	D5	B6	C6	D6	B7	C7	D7	B8	C8	D8	B9	C9	D9	B10	C10	D10	B11	C11	D11
Company A			1		1				1	1					1			1		1		1			1			1	1				1	
Company B			1			1		1			1			1			1	1			1	1			1	1	1				1			1
Company C				1	1					1	1					1			1		1		1			1		1	1			1		
Company D				1					1	1						1	1			1				1	1		1			1				
Company E		1			1		1		1	1						1	1					1			1	1			1				1	
Company F				1			1			1					1			1		1	1			1	1	1		1			1			1
Company G		1			1				1	1					1		1			1			1			1	1	1		1			1	
Company H		1			1			1		1					1			1			1	1		1			1			1			1	
Company I				1	1				1			1	1				1	1	1	1	1		1	1		1				1			1	
Company J					1				1		1		1				1			1			1		1	1	1	1				1	1	

Q11		Theme 1		Theme 2		Theme 3		Theme 4		Theme 5		Theme 6		Theme 7		Theme 8		Theme 9		Theme 10		Theme 11												
Respondent ID		B1	C1	D1	B2	C2	D2	B3	C3	D3	B4	C4	D4	B5	C5	D5	B6	C6	D6	B7	C7	D7	B8	C8	D8	B9	C9	D9	B10	C10	D10	B11	C11	D11
Company A						1			1		1			1				1			1			1			1	1					1	
Company B						1			1	1				1			1				1			1			1	1			1	1	1	
Company C					1					1	1					1			1		1		1					1	1				1	
Company D					1				1		1	1			1		1				1				1	1	1		1			1		
Company E			1		1				1	1				1			1			1				1			1		1			1		1
Company F				1				1			1					1	1				1				1			1	1	1				1
Company G				1			1			1		1			1			1			1			1			1		1			1		1
Company H		1			1				1		1			1				1			1			1		1	1	1			1		1	
Company I				1	1				1			1	1				1			1				1	1	1		1					1	
Company J			1		1			1	1			1		1			1		1					1	1	1	1		1				1	1

Q12		Theme 1		Theme 2		Theme 3		Theme 4		Theme 5		Theme 6		Theme 7		Theme 8		Theme 9		Theme 10		Theme 11													
Respondent ID		B1	C1	D1	B2	C2	D2	B3	C3	D3	B4	C4	D4	B5	C5	D5	B6	C6	D6	B7	C7	D7	B8	C8	D8	B9	C9	D9	B10	C10	D10	B11	C11	D11	
Company A					1					1	1				1				1	1					1		1	1	1				1		
Company B						1				1	1			1			1			1			1			1	1		1	1			1		
Company C					1		1	1		1					1		1				1	1			1	1	1		1				1		
Company D					1		1	1			1			1		1	1	1			1			1			1		1			1	1	1	
Company E					1				1		1				1		1				1			1			1		1			1	1	1	
Company F					1					1	1				1		1				1			1			1		1			1		1	
Company G					1				1		1				1		1				1				1		1		1			1		1	
Company H					1				1		1			1		1				1			1			1		1		1			1		
Company I			1			1			1		1	1		1					1		1		1		1		1				1	1		1	
Company J					1				1	1					1		1			1				1		1		1	1	1				1	

## Appendix B.4: Results on Coded Responses and Theme Occurrences

Table B.4.1: Ranked primary theme codes occurrences from semi-structured open interview questions.

Primary Codes / Interview Questions	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Σ	% Coded Responses	Prioritised Theme Ranking
Firm orientations	11	12	13	15	14	18	11	10	10	12	10	11	147	9.9%	1
SDM configurations	12	11	11	16	13	11	11	10	10	13	14	13	145	9.8%	2
Ambidextrous dispositions	13	10	10	14	16	15	10	10	11	10	12	12	143	9.7%	3
SM foundations	10	15	13	14	14	13	10	10	10	12	10	11	142	9.6%	4
Strategic Planning Impetus	11	15	12	14	12	13	12	10	10	10	10	13	142	9.6%	4
Agency to reform	11	9	13	13	16	14	12	10	11	10	10	10	139	9.4%	6
Prevalence of growth frontiers	10	13	13	13	13	14	10	10	11	10	11	9	137	9.3%	7
SI orientations	10	11	11	10	12	17	10	10	10	10	11	11	131	9.0%	8
Envisioned SF frontiers	14	12	11	14	11	12	10	10	10	10	9	10	133	9.0%	8
Signs of crisis	10	11	11	10	11	10	11	11	10	11	10	12	128	8.7%	10
Sectoral landscape	15	5	13	1	11	12	3	8	8	7	5	1	89	6.0%	11
Total comments around themes	127	124	131	134	143	149	110	109	111	115	112	113	1478		

Table B.4.2: Distribution of secondary them codes occurrences.

	Theme 1			Theme 2			Theme 3			Theme 4			Theme 5			Theme 6			Theme 7			Theme 8			Theme 9			Theme 10			Theme 11		
	B1	C1	D1	B2	C2	D2	B3	C3	D3	B4	C4	D4	B5	C5	D5	B6	C6	D6	B7	C7	D7	B8	C8	D8	B9	C9	D9	B10	C10	D10	B11	C11	D11
Q1	4	8	3	5	4	1		1	9	8	2		1		10	5	2	4	10			7		7	7	2	3	9	2		8	3	2
Q2	1	2	2	7	4		2	2	7	8	2	3		3	6	4	4	4	5	5	5	1	1	10	9	1	1	7	5	3	3	4	3
Q3	3	8	2	7	4		1	3	7	7	3	3	4	3	6	6	3	4	5	3	5	2	2	7	2	3	6	7	3	2	2	6	2
Q4		1		5	5		1	4	5	7	3	3	2	4	7	5	4	6	8	3	3	3	3	8	8	4	4	7	4	3	7	4	3
Q5	3	4	4	4	6	1	2	8	2	9	2	2	2	7	7	2	3	9	8	5	1		2	9	7	2	4	8	3	1	7	5	4
Q6	3	7	2	5	4	1	6	4	7	7	3	4	2	5	7	5	5	8	3	5	5	3	3	6	2	3	6	6	5	2	5	6	4
Q7	1		2	4	6	1		6	4	6	2	2	1	3	8	5	3	3	5	1	4	3	2	5	1	2	8	8	2	2	3	5	2
Q8	3	4	1	4	6	1	1	5	4	4	5	1	1	4	5		5	5	3	2	5	3	1	6	3	4	3	7	2	1	4	3	3
Q9	1	5	2	6	3	1	2	3	5	7	3	1	1	5	5	1	1	8	4	3	3		2	8	3	3	4	5	4	1	6	1	4
Q10	3	2	2	7	3	1	2	2	6	7	2	1	2	4	4	5	3	4	3	4	5	2	1	7	5	5	3	7	1	2	4	4	2
Q11	1	2	2	7	2	1	2	5	4	7	3	1	5	3	2	5	3	2	3	2	5			9	4	5	5	6	3	1	3	7	2
Q12		1		8	2	2	2	2	7	6	3		2	8		7	2	2	2	6	3	1	1	8	2	5	6	4	7	2	2	8	2

Company ID	Theme 1			Theme 2			Theme 3			Theme 4			Theme 5			Theme 6			Theme 7			Theme 8			Theme 9			Theme 10			Theme 11		
	B1	C1	D1	B2	C2	D2	B3	C3	D3	B4	C4	D4	B5	C5	D5	B6	C6	D6	B7	C7	D7	B8	C8	D8	B9	C9	D9	B10	C10	D10	B11	C11	D11
Company A	0	7	0	7	6	0	0	5	8	8	3	2	3	1	8	5	1	6	8	1	4	3	1	9	3	2	9	10	1	1	5	6	2
Company B	0	5	1	1	11	0	3	7	2	7	5	3	3	7	4	7	8	2	5	5	3	4	5	4	7	10	1	3	7	7	3	4	7
Company C	0	3	3	11	0	1	1	2	11	10	2	0	1	2	9	5	0	8	5	1	7	1	0	10	5	1	7	12	0	0	7	6	0
Company D	2	6	0	5	7	1	3	8	2	6	8	3	2	8	6	5	8	5	3	7	5	3	3	10	4	6	4	6	7	3	5	2	7
Company E	4	3	1	10	2	3	3	2	8	11	1	1	1	6	8	8	2	3	7	1	4	1	0	11	5	2	6	10	2	0	5	7	2
Company F	7	0	1	10	2	0	3	2	9	11	0	2	0	6	6	5	1	7	4	6	7	1	0	12	6	1	6	10	5	0	8	5	0
Company G	1	4	6	8	1	5	2	2	10	11	1	0	0	4	8	4	2	7	7	2	5	3	0	10	6	0	6	10	3	0	5	8	1
Company H	8	3	1	8	5	0	1	6	6	11	1	0	2	3	9	5	4	6	7	3	4	3	0	10	6	3	7	9	4	0	7	8	1
Company I	0	5	8	2	10	0	4	8	1	0	10	8	9	8	1	1	9	10	4	7	4	3	9	3	3	11	2	1	7	9	4	1	11
Company J	1	7	1	7	5	0	1	3	10	8	2	2	2	4	8	5	3	5	9	6	1	3	0	11	8	3	5	10	5	0	5	9	2

Table B.4.3: Total code frequencies per Company ID

Company ID	Coded Themes										
	Theme 1	Theme 2	Theme 3	Theme 4	Theme 5	Theme 6	Theme 7	Theme 8	Theme 9	Theme 10	Theme 11
Company A	8	13	13	13	12	12	13	13	14	12	13
Company B	6	12	12	15	14	17	13	13	18	17	14
Company C	6	12	14	12	12	13	13	11	13	12	13
Company D	8	13	13	17	16	18	15	16	14	16	14
Company E	8	15	13	13	15	13	12	12	13	12	14
Company F	8	12	14	13	12	13	17	13	13	15	13
Company G	11	14	14	12	12	13	14	13	12	13	14
Company H	12	13	13	12	14	15	14	13	16	13	16
Company I	13	12	13	18	18	20	15	15	16	17	16
Company J	9	12	14	12	14	13	16	14	16	15	16
Total codes generated across 10 SME firms	89	128	133	137	139	147	142	133	145	142	143

Table B.4.4: % Theme Occurrence WITHIN each Company ID

Company ID	Coded Themes										
	Theme 1	Theme 2	Theme 3	Theme 4	Theme 5	Theme 6	Theme 7	Theme 8	Theme 9	Theme 10	Theme 11
Company A	6%	10%	10%	10%	9%	9%	10%	10%	10%	9%	10%
Company B	4%	8%	8%	10%	9%	11%	9%	9%	12%	11%	9%
Company C	5%	9%	11%	9%	9%	10%	10%	8%	10%	9%	10%
Company D	5%	8%	8%	11%	10%	11%	9%	10%	9%	10%	9%
Company E	6%	11%	9%	9%	11%	9%	9%	9%	9%	9%	10%
Company F	6%	8%	10%	9%	8%	9%	12%	9%	9%	10%	9%
Company G	8%	10%	10%	8%	8%	9%	10%	9%	8%	9%	10%
Company H	8%	9%	9%	8%	9%	10%	9%	9%	11%	9%	11%
Company I	8%	7%	8%	10%	10%	12%	9%	9%	9%	10%	9%
Company J	6%	8%	9%	8%	9%	9%	11%	9%	11%	10%	11%

Table B.4.5: % Theme Occurrence ACROSS Companies

Company ID	Coded Themes										
	Theme 1	Theme 2	Theme 3	Theme 4	Theme 5	Theme 6	Theme 7	Theme 8	Theme 9	Theme 10	Theme 11
Company A	9%	10%	10%	9%	9%	8%	9%	10%	10%	8%	9%
Company B	7%	9%	9%	11%	10%	12%	9%	10%	12%	12%	10%
Company C	7%	9%	11%	9%	9%	9%	9%	8%	9%	8%	9%
Company D	9%	10%	10%	12%	12%	12%	11%	12%	10%	11%	10%
Company E	9%	12%	10%	9%	11%	9%	8%	9%	9%	8%	10%
Company F	9%	9%	11%	9%	9%	9%	12%	10%	9%	11%	9%
Company G	12%	11%	11%	9%	9%	9%	10%	10%	8%	9%	10%
Company H	13%	10%	10%	9%	10%	10%	10%	10%	11%	9%	11%
Company I	15%	9%	10%	13%	13%	14%	11%	11%	11%	12%	11%
Company J	10%	9%	11%	9%	10%	9%	11%	11%	11%	11%	11%

Table B.4.6: Determining Case Study Clusters and UA Occurrence

Company ID	Signs of crisis			Sectoral landscape			UA Occurrences			Rank of importance		
	Acutely Affected	Moderately Impacted	Decimation	Man.	Serv.	Others	UA1	UA2	UA3	UA1	UA2	UA3
A	54%	46%	0%	0%	100%	0%	10%	10%	10%	▲	▲	▲
B	8%	92%	0%	0%	83%	17%	8%	9%	9%	▼	▲	▲
C	92%	0%	8%	0%	50%	50%	11%	8%	10%	▲	▼	■
D	38%	54%	8%	25%	75%	0%	8%	10%	9%	▼	▲	■
E	67%	13%	20%	50%	38%	13%	9%	9%	9%	▲	■	■
F	83%	17%	0%	88%	0%	13%	10%	9%	12%	■	▼	▲
G	57%	7%	36%	9%	36%	55%	10%	9%	10%	▲	▼	▲
H	62%	38%	0%	67%	25%	8%	9%	9%	9%	■	■	▲
I	17%	83%	0%	0%	38%	62%	8%	9%	9%	▼	▲	▲
J	58%	42%	0%	11%	78%	11%	9%	9%	11%	■	■	▲

Table B.4.7: Cross-case analysis & emphasis on UAs with correlations to Strategic Decision Management.

Company ID	Case Study Cluster	Sectoral Landscape	Stage of Lifecycle	D YoY Revenue	Occurrence (%)											
					Absorptive Capability						Dynamic Capability			Ambidexterity		
					Exploration (SI)			Exploitation (SF)			Processing	Positioning	Pathways	Problems	Issues	Opportunities
					B3	C3	D3	B8	C8	D8	B7	C7	D7	B11	C11	D11
A	Acutely Affected	Services	Maturity	Stable	0%	11%	12%	12%	6%	10%	14%	3%	9%	9%	11%	6%
C		Services	Survival	Shortfall	14%	16%	3%	16%	28%	4%	8%	13%	7%	6%	7%	21%
E	Decimation	Manufacturing/Services	Survival	Shortfall	5%	4%	16%	4%	0%	11%	8%	3%	16%	13%	11%	0%
F		Manufacturing	Survival	Shortfall	14%	18%	3%	12%	17%	11%	5%	18%	11%	9%	4%	21%
G	Decimation	Others	Birth	Shortfall	14%	4%	12%	4%	0%	12%	12%	3%	9%	9%	13%	6%
H		Manufacturing	Survival	Shortfall	14%	4%	13%	4%	0%	13%	7%	15%	16%	15%	9%	0%
J		Services	Survival	Shortfall	10%	4%	15%	12%	0%	11%	12%	5%	11%	9%	14%	3%
B	Moderately Impacted	Services	Expansion	Shortfall	5%	13%	9%	12%	0%	11%	12%	8%	9%	13%	14%	3%
D		Services	Growth	Surplus	19%	18%	1%	12%	50%	3%	7%	18%	9%	7%	2%	33%
I		Services/Others	Expansion	Stable	5%	7%	15%	12%	0%	12%	15%	15%	2%	9%	16%	6%

# Appendix C

## Appendix C.1: The Research's Consent & Debriefing Forms

### RESEARCH PARTICIPANT CONSENT FORM

**Research Title:** SME Strategic Regeneration - Building a holistic framework for decision making in managing growth uncertainties and market volatilities for SMEs in Malaysia

#### Do you have to take part?

The interview is strictly confidential and anonymous. Participation in this research is completely voluntary and you may refuse to participate without consequence. The interview will take approximately 60-90 minutes to complete. You will receive no compensation for participating in the research study.

#### What will you do in the project?

There are two parts to this study. In the first part, you will be interviewed with a series of 13-16 (main & additional) questionnaires, and you may decline answering any questions you prefer not to answer. I shall contact you in between early-May to mid-June 2021; about one week in advance to determine if you would be willing to participate, and to decide on a mutually convenient time and mode of communications (i.e., virtual call etc.). You may indicate your preference at this time.

From the completed interview(s) and survey(s); selected mini case studies shall be presented and discussed in the dissertation

#### What happens to the information in the project?

Responses to the survey interviews will only be reported in aggregated form to protect the identity of respondents in the final dissertation report. Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will not be disclosed.

This investigation was granted ethical approval by the UWTSD Department of Management ethics committee. Further information may be sought from:

Department of Management Ethics Committee  
University of Wales Trinity Saint David, Carmarthen  
Campus, College Road, Carmarthen SA31 3EP  
Phone: +44 1267 676767

#### Participant Declaration:

- i) I confirm that I have read and understood the information sheet for the above study and the researcher has answered any queries to my satisfaction.
- ii) I understand that my participation is voluntary and that I am free to withdraw from the study at any time, without having to give a reason and without any consequences.
- iii) I understand that I can withdraw my data from the study at any time.
- iv) I understand that any information recorded in the investigation will remain confidential and no information that identifies me will be made publicly available.
- v) I consent to be a participant in the study

Thank you for your consideration. Your help is greatly appreciated. Your signature below indicates that you have read the above information, are at least 18 years of age and agree to participate in this study.

#### I hereby agree to take part in the above project.

Name of Participant:		Date:
Signature:		

#### Researcher Contact Details:

Name: Mr. Deny Shazly Sopian  
Degree: DBA Professional Doctorate  
Student ID: 1606249  
Email: dsopian@gmail.com  
Contact No.: +6019 264 7175

#### Director of Studies:

Name: Dr. Selvamalar Ayadurai  
Email: drmalar@cbct.my  
Contact No.: +60122396547

## RESEARCH PARTICIPANTS DEBRIEFING FORM

Research Title: SME Strategic Regeneration - Building a holistic framework for decision making in managing growth uncertainties and market volatilities for SMEs in Malaysia

Thank you for your participation in this research study. For this study, it was important that I withhold information pertaining to some aspects and anticipated research outcome from our discourse. Now that your participation is completed, I will describe the conceptual framework and strategic implications to you and how it may benefit your organisation, why it was important, answer any of your questions, and provide you with the opportunity to decide on whether you would like to have your data included in this study.

### What you should know about this study

(1) Early inception and ideation of highly practical and effective Strategic Regeneration framework for Malaysian SMEs to gain advantage for quantum leap strategic orientations in *managing 'real' future uncertainties*; (2) Facilitating knowledge management improvements via assimilation of actual-accounts on strategy making practices from multiple industry/sector players during this investigation; (3) Fostering strategic advantage for Malaysian SME firms with "future-preparedness" via efficient and effective decision making process for strategic planning implementations and sustainable growth trajectory.

### Right to withdraw data

You may choose to withdraw the interview data you provided prior to debriefing, without penalty or loss of benefits to which you are otherwise entitled. Please initial below if you do, or do not, give permission to have your interview data included in the study:

\_\_\_\_\_ I give permission for the interview data collected from or about my organisation to be included in the study.

\_\_\_\_\_ I DO NOT give permission for the interview data collected from or about my organisation to be included in the study.

### If you have questions

The main researcher conducting this study is *Deny Shazly Sapian*, a professional doctorate (DBA) postgraduate research student at the University of Wales Trinity Saint David faculty of business

management. Please ask any questions you have now. This investigation was granted ethical approval by the UWTSD Department of Management ethics committee. Further information may be sought from:

*Department of Management Ethics Committee  
University of Wales Trinity Saint David, Carmarthen  
Campus, College Road, Carmarthen SA31 3EP  
Phone: +44 1267 676767*

Your signature below indicates that you have been debriefed and have had all of your questions answered.

Name of Researcher:	Deny Shazly Sapian	Date:
Signature:		

Name of Participant:		Date:
Signature:		

Please sign both copies, keep one and return one to the researcher.

*Whether you agree or do not agree to have your data used for this study, you will still receive our token of appreciation for your kind participation.*

*Please do not disclose research procedures and/or purpose to anyone outside of the organisation who might profit by not partaking in this study as this could affect the results of the study and impose possible risk to the privacy of your organisational strategy and practices.*

**Final Report:** If you would like to receive a copy of the final report of this study or a summary of the findings when it is completed, please feel free to contact the researcher.

-Page Intentionally Left Blank-