

**ESTABLISHING BUSINESS MODEL INNOVATION  
FRAMEWORK FOR BUSINESS SUSTAINABILITY: A  
CASE STUDY ON ICT RESELLER SMES IN  
MALAYSIA**

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## STATEMENT 1

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## **ABBREVIATION**

6C - Six Capitals

BMI – Business Model Innovation

BNM – Bank Negara Malaysia

DOSM – Department of Statistics Malaysia

EPU - Economic Planning Unit

EY – Ernst & Young

GLC – Government-linked companies

HP – Hewlett-Packard Company

IC – Intellectual Capital

ICT - Information and Communications Technology

IIRC - International Integrated Reporting Council

IR – Integrated Reporting

ISP – Internet service provider

LC – Letters of credit

MASTIC - Malaysian Science, Technology Information Centre

MCO - Malaysia Movement Control

MITI - Ministry of Investment, Trade and Industry

MNC - multinational corporations

OPEX – Operational expenses

PFI – private finance initiative

R&D – Research and Development

RBV – Resource-based View

SLA – Service level agreements

SME - Small and Medium Enterprises

SOC – Security operations centres

SRC – Social and Relationship Capital

TCE – Transaction cost economics

## **ABSTRACT**

In today's digital age, businesses are compelled to adapt through digital transformation and innovation, particularly in the ICT industry. The COVID-19 pandemic has accelerated the need for businesses, including ICT resellers, to innovate their business models to stay competitive. In Malaysia, ICT reseller SMEs play a crucial role in supplying technology to end customers, yet they face challenges from market competition, technological disruptions, and evolving customer needs. Despite extensive research on business models and innovation, the specific challenges and sustainability needs of ICT reseller SMEs in Malaysia remain underexplored, highlighting a critical gap in understanding how these middle-layer channels can adapt and thrive. This study aims to develop a BMI framework tailored to ICT reseller SMEs in Malaysia by identifying the challenges they face, the fundamental elements of BMI contributing to business sustainability, and providing a strategic framework for redefining what helps the companies create, deliver, and capture value in their operations. Using a qualitative multiple-case study approach, this research gathered insights from ICT reseller SMEs headquartered in Kuala Lumpur, all of which had been operating since before the 2019 pandemic and had successfully navigated its challenges. Data was collected through face-to-face, semi-structured interviews and supplemented by a review of literature, news, and reports. The interviews were transcribed verbatim, and the data was analysed using Atlas.ti 9.0 to identify key themes related to business sustainability. The findings reveal the key challenges and various business sustainability initiatives linked to market dynamics and competition, technological trends, evolving customer and market needs, and operational inefficiencies. Through a deeper analysis, four key elements emerge as crucial for sustaining business growth: resource management, stakeholder management, strategic innovation and dynamic capabilities. The study also examined how SMEs apply

dynamic capabilities-recognising opportunities, revitalising capabilities, and responding with agility, growth, and resilience—to adapt to an ever-changing business environment. The proposed BMI framework emphasises a structured approach integrating resource and stakeholder management with strategic innovation and dynamic capabilities. It highlights the importance of aligning resources with stakeholder management to ensure sustained growth. Strategic innovation keeps business competitive, while stakeholder management fosters value creation and long-term partnerships. Together, these elements create a responsive model that adapts to current market needs. This study aims to provide practical strategic decision-making guidance for ICT reseller SMEs and expands the BMI literature. The findings offer valuable insights for policymakers, industry leaders, SME owners, and stakeholders in fostering long-term sustainable growth. Future research is recommended to validate the framework through quantitative methods and explore its applicability in different industries.



# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 Introduction**

This introductory chapter presents the background of the study and the problem statement that motivates the implementation of this study. Then, this chapter presents a variety of the research questions and objectives that guide this study. This chapter also discusses the significance and scope of the study before concluding with a definition of key terms.

### **1.2 Background of Study**

In the current information technology (IT) era, the buzzword is about digital transformation and artificial intelligence (AI). It is an effort to integrate the current business model with technologies and innovation process. Eventually, every business will need to modernise to be digitally enabled, or at least in the customer experience area. The current Covid-19 pandemic has accelerated digital transformation or disruption, and every business is innovating its business model to survive; for example, during Malaysia's Movement Control Order (MCO) in 2020, the online shopping platform had soared 300% of new sellers onboarded. The restriction of the non-essential storefront forced the sellers to change their business model to sell through online platforms. The digital economy has grown;- automation and live chats are critical in customer service channels (The Star, 2021).

According to a study conducted by KSI at the height of the unprecedented global recession and Covid-19 outbreak, businesses faced different challenges depending on their size and access to financial reserves (Voon, 2020). There is still a critical need for SMEs in Malaysia to reevaluate their business model despite the

government's implementation of Special Relief Facility rules and fund allocation from the central bank to include SMEs in procurement allocations, among other things (Bank Negara Malaysia, 2022, 2020; Voon, 2020). While Micro-SMEs (MSMEs) are more adaptive and agile, SMEs nonetheless face significant short-term survival challenges. Based on the EY business pulse survey, SMEs are mostly impacted by COVID-19 in terms of their finances (63%), customers (47%), and people (37%). The future company initiatives are said to centre on reskilling employees and embracing digitisation, showing 74% each. A higher percentage of SMEs also focus more on adjusting their firm size and changing business models (58%) (Ernst & Young Global Limited, 2022).

This study targets the local information and communication technology (ICT) resellers, also known as system integrators, solution providers, service providers, corporate dealers, Tier 1 and Tier 2 partners, business partners, sub-distributors, retailers, or system/network integrators. The majority of these local ICT resellers fall under the SME services segment (DOSM, 2020). In the current business environment in Malaysia, ICT resellers are still significant as the channel to supply the technologies to the end customer. Rapid consolidation is happening across industry players, and the adaptation to the Fourth Industrial Revolution (IR4.0) challenges the traditional way of doing business with ICT resellers. The way ICT resellers used to come up with new strategies and plans has changed because of more competition, more complicated business processes, and new technologies. These ICT reseller SMEs in Malaysia face unique challenges that threaten their sustainability and growth. The dynamic nature of technology, coupled with intense global and local competition, requires these businesses to be agile and adaptable.

The line is blurring and converging as the hardware vendors move into software and IT services, whereas telecommunication providers and software companies are heading towards IT services and cloud computing. In short, they enter each other's businesses (Agarwal et al., 2021; Acker et al., 2016). The offerings from these large vendors shape the businesses' behaviour, and customers evaluate the best-suited technology for themselves.

On the other hand, cloud computing is emerging rapidly. Cloud computing refers to the on-demand distribution of IT resources via the internet using the utility or pay-as-you-go model. Customers can acquire the technology services as needed from the cloud provider rather than purchasing, operating and getting their resources to maintain the physical hardware and data centres (Amazon Web Services, 2023). Even Google and Apple cannot be sure of sustaining their success. ICT resellers are the middle layer, which is highly dependent on vendors and customers. They have to demonstrate value within the scope that the vendors do not occupy. The above-mentioned saturated business and profitability have raised concerns among the ICT resellers, prompting the need to reexamine their existing business model, dynamic capabilities, and whether they are still applicable to sustaining their business.

While anecdotal data suggests that as a result of the pandemic, more companies are embracing digital technology, this is more towards larger enterprises. Many SMEs are still unprepared to make the digital leap. During the first year of the pandemic, in 2020, e-commerce increased by 33% over the previous year, with the majority coming from social media and mobile internet technologies. PC and laptop demand has reached global limits, while software demand is expected to fall, with larger spending enterprises deferring application rollout to the lowest priority (Choudhury, 2021; Knowles, 2020). The 2020 Malaysian ICT

market had higher growth than the preceding year, even though only 25% of the organisation accelerating their digital transformation, whereas 60% of the organisation slowing down on the non-critical IT projects and deferring long-term digital transformation initiatives (Department of Statistical Malaysia, 2021; BusinessToday, 2020). Basic technologies contribute the majority of this growth, with only 25% of the businesses achieving advanced digitalisation and 48% of SMEs raising the alert of employee skill sets and resources (Tong and Gong, 2020).

In the meantime, the effects of globalisation, Industrial 4.0, and digital transformation have driven a company to innovate its existing business model. New approaches to value creation and value capture are required at all levels, from functional to operational, to remain sustainable (Li, 2017). Innovation is seen as a viable solution to the challenges of a highly dynamic and competitive world. The concept of BMI has been identified as a strategic response to the challenges faced by these enterprises. It becomes the cornerstone of performance in this context, besides the product, services, and process innovation (Lewrick et al., 2018; Wirtz et al., 2016). A business model's lifespan is shortening as customers' power has increased significantly. Whenever a business model change occurs, the need to understand the new value created and captured has to be redefined (Chesbrough et al., 2018).

However, many scholars agree that as BMI continues evolving, it is still underdeveloped, especially in the key theoretical and empirical questions (Foss and Saebi, 2017; Zott et al., 2011). In today's highly connected environment, the firm-centric business model with static input has faced challenges when new ways of creating value have appeared (Omerovic et al., 2020). As the existing or standard framework may not be sufficient to investigate the interdependence growth of companies from the same ecosystem, the emerging ecosystem suggests a more

network-based view of the business model (Muegge and Mezen, 2017). In recent years, the BMI has become much more popular, especially because a successful implementation of the BMI is linked to a long-term competitive advantage (Evans et al., 2017; Massa and Tucci, 2014; Casadesus-Masanell and Zhu, 2013; Mitchell and Coles, 2003).

Google is known for its consistent and varied BMI projects, which make it stand out from its competitors (Google, 2021). Various consulting organisations have conducted empirical research hoping to get insights into business management practices due to such remarkable success stories (Wirtz et al., 2016; Jong and Dijk, 2015). Despite a lack of conceptual clarity and clear-cut practical recommendations, the literature on BMI shows a very diverse picture. BMI has yet to gain full consensus due to discrepancies in its conceptual framework (Casadesus-Masanell and Zhu, 2013; Spieth et al., 2014).

Foss and Saebi, (2018) mentioned that many studies have been done over the past 20 years but still lack clarity on the central constructs. Despite having a solid business strategy, even established enterprises fail at times when the external environment, competition, and unstable marketplaces change dramatically. Nevertheless, these fast changes substantially impact the existing business processes' resources, capabilities, and value generation. That is when an immediate new approach is required to demonstrate the business' innovative action by streamlining internal and external elements (Anwar, 2018). Accordingly, BMI is still a relevant topic for studies based on empirical research and surveys (Wirtz et al., 2016), thus indicating the potential of this research.

This study aims to delve into the complexities of the Malaysian ICT reseller SMEs, examining the challenges they face in sustaining their businesses. It seeks to identify the core elements of BMI that contribute to the resilience and longevity

of these enterprises. Through this research, a BMI framework specifically tailored for the Malaysian context will be developed, offering a strategic tool that guides the strategic thinking and planning process in organisations, particularly the ICT reseller SMEs that are looking to innovate their business model for enhanced sustainability.

The anticipated outcome is to provide a nuanced understanding of the interplay between BMI and sustainability in the context of Malaysian ICT reseller SMEs. This framework will not only serve as a blueprint for strategic action but will also contribute to the broader academic discourse on SME sustainability in emerging markets. By focusing on BMI, the study addresses a significant gap in the literature and provides practical insights for business leaders, policymakers, and stakeholders within the ICT ecosystem.

This study's background sets the stage for a comprehensive exploration into how ICT reseller SMEs in Malaysia can innovate their business models to navigate the challenges of a rapidly evolving industry and ensure sustainable business practices in the long term.

### **1.3 Problem Statement**

In today's rapidly evolving technological landscape, ICT reseller SMEs in Malaysia face growing pressure to innovate their business models to remain competitive and sustainable. The global shift toward digital transformation, particularly with the rise of cloud computing and Software-as-a-Service (SaaS), has changed market dynamics and customer expectations (Omol, 2024; Remane et al., 2017). However, despite the critical role SMEs play in Malaysia's economy that contributing 39.1 to the GDP in 2023, their growth has stagnated, with only a

marginal increase from 36.6% in 2016 (SME Corporation Malaysia, 2024a; DOSM, 2021; Department of Statistical Malaysia, 2016). This stagnation is particularly reflected in the ICT sector, where SMEs struggle to compete with larger enterprises and global players that dominate the market (Department of Statistical Malaysia, 2021).

The sustainability of ICT reseller SMEs is further threatened by high failure rates with globally showing approximately 50% of IT startups fail within the first five years, and only 30% survive a decade (U.S. Bureau of Labor Statistics 2023). In Malaysia, the situation is even more serious, with 60% of SMEs failing within five years and only 40% overcoming growth-related challenges (Ambad et al., 2020). Industry experts, such as Ambank's managing director, estimate that 80% of Malaysian SMEs fail within the first three years (Bernama, 2017). Yusoff et al. (2018) and Jebna and Baharudin (2013) noted that a higher failure rate for SMEs is anticipated even in the absence of public data. These percentages underscore the precarious position of ICT reseller SMEs, which face unique challenges such as diminishing roles in the cloud ecosystem, intensified competition from multinational corporations, and limited access to funding and skilled talent (Tong and Gong, 2020; Hu, 2017).

Compounding these challenges is Malaysia's declining Global Innovation Index (GII) ranking, which dropped from 33rd in 2021 to 36th in 2023 (Malaysian Science and Technology Information Centre, 2024). This decline reflects the struggles of local micro SMEs, which constitute 96.9% of the business community, in driving innovation and adopting new technologies. The COVID-19 pandemic, geopolitical instability, and global conflicts like the Russia-Ukraine war have further exacerbated these challenges, increasing operating costs and exposing

vulnerabilities in talent and funding (Vaghefi and Yap, 2021; BusinessToday, 2020).

Moreover, the ratification of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) presents both opportunities and threats. Although Malaysia has negotiated for flexibility in government contracts to prioritize local SMEs, the CPTPP opens the market to foreign competitors, intensifying competition for procurement contracts (Ministry of Finance, 2023). The ICT resellers risk losing market share to larger multinational companies entering through the CPTPP, especially from Singapore, as they are one of the Global ICT.

The recent surge in data centre investments in Malaysia, driven by global tech giants like Google and Microsoft, has further reshaped the ICT landscape. While these investments have boosted the economy, they have also marginalised ICT reseller SMEs, leaving them with limited opportunities to compete in the cloud infrastructure and services market (Jacob, 2024; Saieed, 2024). While these developments have boosted the economy and infrastructure, the playground for ICT reseller SMEs is shrinking. Global large enterprises and direct cloud vendors dominate the data centre and cloud infrastructure markets, leaving little room for resellers to carve out a competitive niche (Jacob, 2024).

Traditional industry boundaries are dissolving, leading to both synergies and competition across sectors (Stonig et al., 2022; World Economic Forum, 2016). Companies that once relied heavily on internal R&D have realized that the rate of innovation within their walls is insufficient to keep up with these rapid changes. The COVID-19 pandemic has sped up these changes, making it more urgent for businesses to rethink their strategies.



With 19 years of experience in the IT industry, spanning roles across distribution, reselling, and both hardware and software principals, the researcher has witnessed firsthand the challenges that ICT reseller SMEs face. This extensive industry exposure has revealed the cyclical nature of success and struggle within the sector. Preliminary discussions with prominent industry leaders reflect a shared concern over the sustainability of these ICT reseller SMEs. Many SME business owners express uncertainty about enduring market pressures, especially as they grapple with limited long-term strategic planning to secure their future. These insights underscore the critical need for this research, which aims to provide a clearer understanding of these issues. This study explores practical approaches that will support ICT resellers in developing resilient and sustainable business models for long-term success.

Despite these challenges, there is a significant gap in the literature regarding how BMI can be tailored to the unique needs of ICT reseller SMEs in Malaysia. While BMI has been extensively studied, its application particularly to ICT resellers remains underexplored. This research seeks to address this gap by developing a BMI framework specifically designed to enhance the sustainability of ICT reseller SMEs in Malaysia. By doing so, it aims to provide actionable insights and strategies that can help these SMEs navigate the evolving technological landscape, overcome market pressures, and achieve long-term success.

#### **1.4 Research Objectives**

The primary aim of this study is to establish a BMI framework for business sustainability among information and communication technology (ICT) resellers in Malaysia. Therefore, this study developed three research objectives as below:

- RO1: To examine the challenges experienced by the ICT reseller SMEs in sustaining their business in Malaysia
- RO2: To identify the fundamental elements of business model innovation (BMI) in ICT reseller SMEs' business sustainability in Malaysia
- RO3: To recommend a business model innovation (BMI) framework to enhance the sustainable growth of ICT reseller SMEs in Malaysia

## **1.5 Research Questions**

By referring to the primary aim and research objectives, the research questions of this study are:

- RQ1: What are the key challenges faced by ICT reseller SMEs in Malaysia in sustaining their businesses, and how do they overcome these challenges to achieve business sustainability?
- RQ2: What are the fundamental elements of business model innovation (BMI) that enable ICT reseller SMEs in Malaysia to achieve business sustainability?
- RQ3: How can a business model innovation (BMI) framework be designed to enhance the sustainable growth of ICT reseller SMEs in Malaysia?

## **1.6 Significance of the Study**

While BMI has been extensively researched within large enterprises and across various SMEs globally, as evidenced by the works of a few researchers, the specific application to ICT reseller SMEs in Malaysia remains underexplored (Matarazzo et al., 2021; Müller et al., 2018; Arbussa et al., 2017; Lindgren, 2012). The Asia Pacific Economic Cooperation (APEC) region has long recognized the

need to align academic research with practical applications to achieve business sustainability since 1996. However, Western-based BMI models may not fully account for Malaysia's distinct business approaches, cultural differences, and market conditions (Karikomi, 1998; Rohlfer and Zhang, 2016).

This research is significant because it highlights the role of BMI in fostering innovation, driving value creation, and addressing the unique challenges Malaysian ICT reseller SMEs face, including market dynamics, strategic insight, and operational resilience. The research aims to provide an actionable BMI framework that integrates business theory with practical applications, helping ICT reseller SMEs realign their strategies to meet evolving industry standards and consumer demands.

Theoretical contributions of this study include a deeper understanding of the intersection between BMI and ICT reselling, particularly in the Malaysian context. Practically, the research delivers a BMI framework designed to empower ICT reseller SMEs with the strategic tools to navigate a dynamic and competitive market landscape, thereby enhancing their business sustainability and competitive advantage.

By filling the current research gap, this study enriches the academic literature and provides strategic insights that Malaysian ICT reseller SMEs can leverage for sustained growth and adaptability in an industry marked by rapid technological change. This research offers valuable guidance for both policymakers and industry practitioners in shaping the future of ICT reselling in Malaysia.

## **1.7 Scope of the Study**

This research focuses on exploring business sustainability and BMI within the context of ICT reseller SMEs in Malaysia. While many business-related topics, such as micro and macroeconomic factors, broader business operations, and contemporary socioeconomic issues, are relevant in business studies, this research narrows its scope to understanding how ICT reseller SMEs can achieve sustainable growth through BMI. The emphasis is specifically on the role of resource management, stakeholder management, strategic innovation, and dynamic capabilities in fostering business sustainability for these ICT resellers.

The scope is delimited to the ICT reseller sector in Malaysia, excluding larger enterprises and other ICT-related subfields such as software development or telecommunications. This exclusive focus on SMEs allows for a deeper analysis of the unique challenges and opportunities that ICT resellers encounter in their efforts to maintain sustainable business practices. By focusing on this particular segment, the research provides valuable insights that are highly specific to the ICT reseller landscape.

In terms of research design, this study uses a qualitative approach. The study aims to capture the complexity of BMI and business sustainability by conducting in-depth interviews with key decision-makers in ICT reseller SMEs. A qualitative method was chosen because it allows for richer, more detailed insights into the experiences and strategies of these businesses—insights that may not be easily captured through surveys or other quantitative approaches.

Finally, the study focuses on respondents whose headquarters are based in Kuala Lumpur, Malaysia, as this city serves as a central hub for ICT activities and the offices for all the IT principals. While the primary operations are managed from Kuala Lumpur, many of these businesses have support teams or engineers located

remotely throughout Malaysia. This study concentrates on ICT resellers in this region to ensure that the data collected directly aligns with the research objectives. Although the focus is on Kuala Lumpur, the insights gained from this study are likely relevant to ICT reseller SMEs across the country, as the challenges and dynamics observed may resonate with similar businesses operating in other regions of Malaysia.

## **1.8 Definition of the Key Terms**

This section lists the definitions of the key terms used throughout the study.

### **1.8.1 Business Sustainability**

According to a few scholars (to name a few: (Geissdoerfer, 2019; Evans et al., 2017; Schaltegger et al., 2016b, 2012; Boons and Lüdeke-Freund, 2013; Dyllick and Muff, 2016; Lüdeke-Freund et al., 2018), the general consensus dictates that a sustainable business is commercially profitable, socially ethical, and ecologically friendly. In other words, the business is financially stable and self-reliant; strives to improve the social impact (promotion of equal opportunity, human rights, and community care) of its actions on key stakeholders (employees, customers, government, and society); and ensures that its activities (from production to consumption of its goods and services) do not negatively impact the environment.

### **1.8.2 Business Model**

The business model was defined as generating value for companies (Amit and Zott, 2001) in two distinct ways to the value proposition (Al-debei and Avison, 2010). These ways are: a) combining forces with suppliers or partners in creating value for customers (Osterwalder and Pigneur, 2005; Westerlund et al., 2014); and

b) creating value with stakeholders and the parties involved (Freeman, 2023; Freeman and McVea, 2001).

### **1.8.3 Information and Communication Technology (ICT)**

França et al. (2020) refer to ICT as computer-based technology, which is the collection of devices, networking items, applications and systems that allow people and businesses to interact in the digital world.

## **1.9 Thesis Structure**

This thesis is segmented into five chapters. As the introductory chapter, Chapter One provides a brief introduction and background of the study before emphasising the problem statement. Then, this chapter lists the research questions and objectives that guide this study's journey. This chapter also focuses on the significance and scope of the study before it comes to an end with the definition of the key terms used.

Chapter Two reviews the literature related to the focus of the study. This chapter begins with a discussion of the ICT resellers in Malaysia. Then, this chapter discusses the current outlook and challenges of the ICT industry before focusing on business sustainability and business models. This chapter ends by highlighting the theories underpinning and the framework developed for the study.

Chapter Three focuses on the methodology that will be employed to perform this study. This chapter starts by discussing the research philosophy and design before focusing on the respondents, sample size, and sampling techniques used to approach the respondents. Besides that, this chapter also discussed the instrumentation, data collection, and analysis. Finally, this chapter explains the ethical concerns and qualitative reliability applied in this study.

Chapter Four presents the research findings that this study will attain. This chapter starts with the demographic profiles of the respondents, followed by the discussion of the findings according to the three research objectives of the study. This chapter concludes with a summary of the findings.

Chapter Five discusses the findings, recommendations, and conclusion of the study. This chapter begins with a recapitulation of the study before discussing all the findings presented in the earlier chapter. The implications of the study are then addressed in this chapter. Before ending the study, this chapter explains the limitations and offers recommendations for future studies.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

As the intermediary between manufacturers and end-users, the existing ICT resellers are the market's primary source of strength and value. As an ICT reseller SMEs, knowing the customer and how the principal's market and business model are changing is important. This affects the company's strategies, so having inside information will be helpful. The implicit information may be too insignificant or confidential to be publicised, such as the end of life of particular items without a roadmap, additional commission paid to a salesperson for combining services with hardware, or the absence of incentives for selling hardware. All of these factors indicate the principal's direction or strategy. Judging by their progress, most prominent worldwide vendors are transforming their business models towards result-based services.

This chapter deliberately reviews the ICT reseller SMEs in Malaysia, particularly their current outlook and challenges. It also discusses the concept of business sustainability and business models in the context of ICT. Aside from that, it focuses on the theories that underpin this study and ends with the framework developed by this study.

#### **2.2 Overall Information and Communication Technology (ICT)**

##### **Industry**

ICT has many definitions, but generally, many scholars agree that it involves informational and communicative processes (França et al., 2020; Zuppo, 2012). If IT is the use of hardware devices or software to solve problems, then ICT



includes communication networks to process and transmit data (Jakobs, 2021). Traditionally, IT and ICT are somewhat different, but modern innovation, such as converged infrastructure, has blurred this distinction to make them virtually identical and used interchangeably. Investment in ICT is a major driver in both developed and emerging countries driving innovation, productivity and economic growth (Intalar and Jeenanunta, 2019). Research shows that adopting ICT requires substantial financial and human capital investment to manage sophisticated hardware and software, often driven by customer pressure and external events (Intalar and Jeenanunta, 2019; Neirotti et al., 2018).

By the end of the 1990s, the Bayan Lepas Free Industrial Zone had attracted many MNCs to build their assembly plants and regional research centres, such as Advanced Micro Devices (AMD), Hitachi, Intel, Motorola, HP, Dell and Seagate in Malaysia. The Multimedia Super Corridor (MSC) Malaysia launched in February 1996 has strengthened and attracted many upstream foreign vendors or multinational corporations (MNCs) to set up their sales offices in Malaysia. Before that, these MNCs had been appointing their distributors or authorised resellers to run the business in the country, for example, Microsoft, Creative Labs Sound Technology, Foxpro, Norton, Gateway 2000, Compaq, Dell, and IBM (Subramaniam, 2022). Some companies are still growing, and some have been acquired. Norton was sold to Symantec and, later on, acquired by Broadcom (Stiennon, 2020). Both Gateway 2000 and Compaq were selling in Malaysia through distributors and authorised resellers until they were acquired by Acer and HP, respectively (Sorkin and Norris, 2001; Dean and Lawton, 2007). Most of the MNCs' regional hubs started in Singapore and are supported by the next-tier suppliers such as the distributor and the supply chain partners to sell in Malaysia (Ingram Micro, 2024c). The local distributors provide credit facilities, warehousing,

business development resources, marketing services, and technical assistance before and after sales that act as the arms and legs of the MNCs vendor to grow their market (Ingram Micro, 2024a).

During the past two decades, the ICT industry has grown exponentially, contributing to the developing country's economic growth and brand value and increasing employment, entrepreneurship, and the adoption of digital transformation (Appiah-Otoo and Song, 2021; Vu et al., 2020; Niebel, 2018). Larger MNCs, including hardware or software vendors, consulting firms, system integrators (SI), and service providers, typically secure the majority of chances. IBM, Accenture, Kyndryl, Deloitte, Capgemini, Infosys, HCL, Tech Mahindra, DXC Technology, NTT Data Services, Tata Consultancy Services, Hitachi Consulting, and Wipro are a few well-known global IT service providers (Ingalls, 2023; Acker et al., 2016).

The worldwide value chain transformations have aided this dominance in outsourcing IT services. Through integrated infrastructure and cloud solutions, the growing commoditization of ICT solutions enables end users to invest less in new applications and services. This has led to greater market concentration among suppliers, distributors, and telecommunications providers, who formerly sold only hardware or software but now offer infrastructure-as-a-service and software-as-a-service, posing a challenge to local ICT resellers.

Larger upstream vendors, including Dell, HP, Lenovo, Huawei, and others, have modified their business models to include a one-stop shop, while significant distributors are constructing new networks to sell directly to end users via e-commerce. The difficulty of duplicating Dell's direct selling business strategy has elevated the company to a unique position in the IT sector. Companies like Dell,

Amazon, Alibaba, and many others have smashed traditional boundaries and expanded rapidly, giving the concept of a business model an entirely new meaning.

As the upstream vendor or principal starts to change their business model, the partner ecosystem will be affected and begin to evolve rapidly due to the complexity of technological innovation and the changing nature of the technological environment. The current transformation to cloud computing changes the patterns, roles and key stakeholder relationships (Gao et al., 2021). One company has to search for and integrate knowledge, as no one company can keep up with the pace of technological progress. According to Sinha and Huraimel (2021), with the nature of AI, ecosystem partners are important to drive the speed and scale and also their flexibility to move around with the all-rounded capabilities.

The current 5G is a breakthrough in mobile communications technology that will drive digitalisation and aid in the acceleration of IR 4.0 (Maziar Nekovee, 2023). 5G wireless technology aims to provide multi-gigabit per second peak data rates, ultra-low latency, greater dependability, larger network capacity, increased availability, and a more consistent user experience for a larger number of people (Qualcomm Technologies, 2023). It thus allows a new type of network to link almost everything, including machines, objects and gadgets. Formerly considered futuristic services have already become a reality (Ericsson.com, 2023). Smart Assistants can help you make online orders with voice recognition. Driverless vehicles can use the same roadways as regular vehicles. Chatbots can help troubleshoot client issues. Virtual doctors may now diagnose common diseases. And the list doesn't end there. 5G will enable future technological improvements in many aspects of life for the benefit of humanity (The Institute of Internal Auditors, 2019).

### **2.2.1 The Emergence of Cloud Computing and Artificial Intelligence (AI)**

Customers are beginning their journey to the cloud by adopting a hybrid approach. This has substantially impacted ICT resellers that specialise in implementing and maintaining IT infrastructures as the market becomes saturated. By reducing startup costs and accelerating the implementation of a transformation plan, the pandemic has sped the customer's transition to the cloud. Most end users learn how to use public cloud computing independently instead of getting help from a reseller.

The pandemic has altered our working methods. According to a poll by Howard (2020), the top IT changes are surveyed as remote working options, increased investment in digital channels or technologies, better IT alignment, and increased modularity or agility. A company's IT department used to be the gatekeeper to all the technological-related stuff, from conducting research and due diligence to selecting, purchasing, deploying, operating, managing and maintaining hardware and software supplied by the vendors. It was all before cloud computing started gaining greater attention, which some consider a game-changing force (El Zoghbi and Chedrawi, 2020).

Salesforce.com, for instance, has been one of the most successful industry pioneers. Thousands of enterprises use Salesforce.com as a Customer Relationship Management (CRM) solution. Unlike other popular CRM solutions, Salesforce.com software is not installed in a company's data centre or on individual workstations. It has eliminated the possibility of equipping the company with the hardware, software, applications, and skill set required to develop, create, and operate its own CRM system. Every day, more cloud-based solutions become accessible, and Google is one of the most famous players in this space. Microsoft

has made billions of dollars selling traditional software licenses. With the launch of Office Web Apps, the company has acknowledged the benefits of cloud computing.

The rapid adoption of cloud computing has paved the way for the integration of AI into various business operations. AI technologies, such as machine learning, natural language processing, and predictive analytics, are transforming businesses by enabling more efficient data processing and decision-making. AI applications in cloud computing are becoming more prevalent, offering advanced capabilities like automated customer service through chatbots, enhanced data security measures and optimized supply chain management. Digital assistants like Siri, Google Home, and Amazon's Alexa exemplify the blend of AI and cloud computing into our daily lives (Mohammed et al., 2023).

AI practitioners can use Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) models to access advanced infrastructure and AI algorithms without needing an extensive in-house team. Consumers using Software as a Service (SaaS) can embed AI services into their applications, shifting software and data from “on-premise” to “smart SaaS” in the cloud, enhancing collaboration, efficiency, and talent sharing (Lins et al., 2021). However, these advancements mean that many tasks traditionally handled by ICT resellers are now automated or managed by cloud services, reducing the demand for their expertise in traditional areas. To remain competitive, ICT resellers must develop new competencies and offer value-added services like AI integration and data analytics, ensuring they can navigate the evolving technological landscape and meet market demands.

### **2.2.2 The Evolution of Upstream Hardware Vendors**

For example, Lenovo, the market leader in the PC vendor market, has not only focused on computer hardware but has also spent substantially in R&D into AI, the Internet of Things (IoT), and big data, totalling USD 1.2 billion since 2017 (Yaku, 2017). Lenovo unveiled its industry-transformation-oriented AI Technology Platform, Lenovo Brain, in September 2021. Lenovo Brain will help accelerate industries' intelligent transformation, delivering full lifecycle AI solutions, including design, implementation, and maintenance, across cloud, edge, and client environments (Lenovo StoryHub, 2021a). Apart from AI, Lenovo also unveiled Lenovo TruScale, an everything-as-a-service approach that unites Lenovo's smart devices, infrastructure, and solutions businesses in a new way for customers (Lenovo StoryHub, 2021b). This scalable, consumption-based model with predictable payment options will be able to address typical business issues while also allowing SMEs to pay as they grow (Yang, 2017).

Another giant PC maker, HP, created a new venture capital firm, HP Tech Ventures, in 2016. HP Tech Ventures' mission is to promote an ecosystem of innovation and reinvention in the area of advanced manufacturing, artificial intelligence, device security, digital health, edge computing, gaming and eSports, virtual and augmented reality, and 3D printing (HP Tech Ventures, 2016). HP, like Lenovo, unveiled its own "Everything-as-a-Service" platform, HPE GreenLake, in 2021.

As one of the top three computer hardware companies, Dell was one of the first to invest in new technology research and development. Dell Technologies Capital, Dell's corporate venture capital arm, was founded in 2012 and has since invested in about 140 businesses (Dell Technologies Capital, 2023). Dell unveiled Project APEX, an "Everything-as-a-Service" platform, like its two competitors, in

2021. Dell Technologies' as-a-service capabilities have been enhanced under Project APEX, allowing medium-sized enterprises to use Dell technology on demand (Dedering, 2021). Dell believes Project APEX will significantly simplify how medium businesses consume and deliver IT services, accelerating digital transformation by providing choice and flexibility.

While computer hardware makers are just now beginning to embrace the “Everything-as-a-Service” model, software and programming companies have been selling software-as-a-service (SaaS) for many years. The software is generally sold through a perpetual licencing or subscription-based model. A perpetual licencing model allows end users to pay once and use the programme for as long as they follow all licence agreement conditions. In contrast, subscription-based licencing is a monthly or annual license that allows users to pay a per-user charge.

Microsoft, the world's largest software corporation, introduced Office 365 in 2011, the company's first subscription model, a cloud-based office business software suite (Microsoft, 2023). Salesforce debuted its first SaaS solution, a customer relationship management (CRM) platform, in 1999 (Salesforce.com, 2023). Adobe released its Creative Cloud SaaS platform in 2012 (Adobe.com, 2023). Today, all new software companies and more than 80% of existing independent software vendors provide subscription-based models (Petthey, 2018; Jin, 2021).

Many hardware vendors have maintained Moore's law standard by refreshing the technology in one or two years and keeping the price strategy (Moore and Mollick, 2014). This strategy will be challenging for new entrants, who will have a chance to disrupt the innovation process with lower pricing and upset the established competitors (Markides, 2006). The relevance of services has grown notably as part of the vendor's strategy, operations management, marketing,

innovation and other related fields, mostly involving the B2B segments, though some are also directly offered to the consumers (Kowalkowski et al., 2016). There are varying causes for the vendors to invest in the type of services, but the result is rather constant and may be synthesised as follows:-

- 1) Complementing the product to create more sales, could it be the services rendered on their own or by their partners to increase customers (Qi et al., 2020; Raddats et al., 2019; Cusumano et al., 2014)
- 2) Certain sales of services that are important to be bundled with the products, such as preventive maintenance, extended warranty, loaners, and repairs (Raddats et al., 2019)
- 3) Combining one or more products with services customized to industry-specific customers to create a stronger competitive advantage (Raddats et al., 2019; Cusumano et al., 2014)
- 4) Creating deeper relationships through consultancy and maintenance services enables the continuation of offering the existing customers new versions of products for an extended period of time (Forkmann et al., 2016; Davies et al., 2007)
- 5) Services revenue provides higher profit compared to fluctuating product sales (Crozet and Milet, 2017) (Kowalkowski et al., 2016)

## **2.3 Current Outlook of the Information and Communication Technology (ICT) Industry in Malaysia**

The industrial industry has evolved rapidly in recent decades, which is vital to Malaysia as a trading nation. As Malaysia celebrates its 67th National Day, it continues transforming from a mining and agricultural-based economy in the 1970s to one focused on manufacturing and then now on digital technology. The industry



is constantly evolving with more and more automation infusion, from mass production through the employment of an intensive labour force in production lines to the introduction of robotics to increase operational efficiency. The Fourth Industrial Revolution, or Industry 4.0, is the name given to the current stage of evolution today. (Ministry of International Trade and Industry, 2018; Bedi, 2021; Economic Planning Unit, 2021).

The Malaysian government recognises that IR 4.0 alters the global industrial environment, decreasing the competitive advantage of low-cost nations relying on cheap labour. Nations that take the lead in adopting IR 4.0 technology and procedures will gain a competitive advantage over their global counterparts. The Malaysian government released the first National Policy on Industry 4.0 on October 31, 2018, reformed on July 1, 2021, to promote digital transformation in Malaysia's manufacturing sector and associated services by assisting businesses in adopting advanced technology systematically and comprehensively (MITI, 2018; EPU, 2021).

In March 2021, the Malaysian government established Digital Nasional Berhad (DNB), a Special Purpose Vehicle allowed to operate under the Communications and Multimedia Act 1998 (CMA 1998), to build 5G infrastructure and networks across the country (Malaysian Communications and Multimedia Commission, 2021). Due to this, DNB will become Malaysia's sole wholesale 5G network provider, which implies that telecommunications companies such as Telekom Malaysia (TM), Maxis, Digi, Celcom, and U Mobile would have to rely on DNB for 5G network services. With the government's pledge that all licenced telcos would have equal access to infrastructure, Malaysians will benefit because telco competition will be more fierce, and Malaysians will benefit from lower rates (Ministry of Finance of Malaysia, 2021).

Another upside is that Telcos would be able to focus on developing better goods and services without being overburdened by excessive and redundant capital investment. Communication tools, such as cloud computing, are essential in many modern IT services. Many Malaysian telcos, including TM, Maxis, Celcom, and Time dot com, recognised this opportunity and began selling cloud solutions many years ago. And the profitability of cloud computing services encourages them to venture into selling other ICT services.

Many telcos are striving to leverage their existing scale and IT expertise to expand beyond basic internet and phone services and begin to sell IT services. In order to accelerate development in ICT services and associated network areas, some telcos have acquired IT firms. The two global acquisitions of the telco company are KPN acquiring Getronic and NTT acquiring Dimension Data. The same tendency may also be seen in the Malaysian market (Diehl et al., 2015).

Maxis is investing in building talent capacity and capabilities and has made two major acquisitions: Infrastructure Consulting and Managed Services (ICMS), a Malaysian-based Microsoft Gold Partner and cloud solutions company, and Audeonet, a Malaysian-based unified communication and voice cloud solutions company. This will help the company grow its talent pool of cloud expertise and its capacities as a trusted convergent ICT solutions supplier for organisations of all sizes (Maxis, 2021).

Since the 1990s, TM has specialised in delivering ICT solutions to businesses and government agencies. It strengthened its position by providing a complete suite of solutions encompassing connectivity, Cloud and data centre, cybersecurity, and smart services through its business-to-business subsidiary, TM One and VADS Berhad (VADS). Under the TM ONE Cloud brand, two memorandums of understanding (MOUs) with VMware and Huawei were inked to

promote cloud computing in Malaysia. It will then provide an end-to-end Cloud platform for Malaysian businesses to allow next-generation innovation, facilitate customer innovation, and increase cloud and AI collaboration prospects (Telekom Malaysia Berhad, 2020, 2021).

Celcom's national campaign since 2020, "Celcom Business: Reimagine SME for Tomorrow," concentrates on driving its ICT solution business in Small and Medium Enterprises (SMEs), increasing its reach in supporting local businesses to tackle new difficulties. Celcom Business Suite provides SME firms with various digital solutions, including cloud-based e-POS, electronic payments, digital marketing solutions, and extra productivity tools like tablets and Microsoft Office 365. This complete end-to-end service provides organisations with all the necessary digital solutions specifically designed to simplify digitalisation for small enterprises (Celcom, 2020).

Digi aims to assist micro and SME companies in digitalising business continuity through its MDEC partnership. As a relatively young participant in the ICT industry, Digi continues to create a partnership ecosystem and internal competence, rapidly increasing digital capabilities to provide end-to-end digital solutions (Digi.Com Berhad, 2021). However, Celcom and Digi announced their merger on April 8, 2021, followed by a share purchase agreement on June 21, 2021. This has enabled the new combined company to be better equipped to promote 5G adoption and solutions, leveraging the power of artificial intelligence (AI) to catalyze new growth opportunities for major corporations and SMEs (CelcomDigi, 2023)Based on this trend, these prominent telecommunication providers will continue to acquire more reputable and successful resellers as they grow.

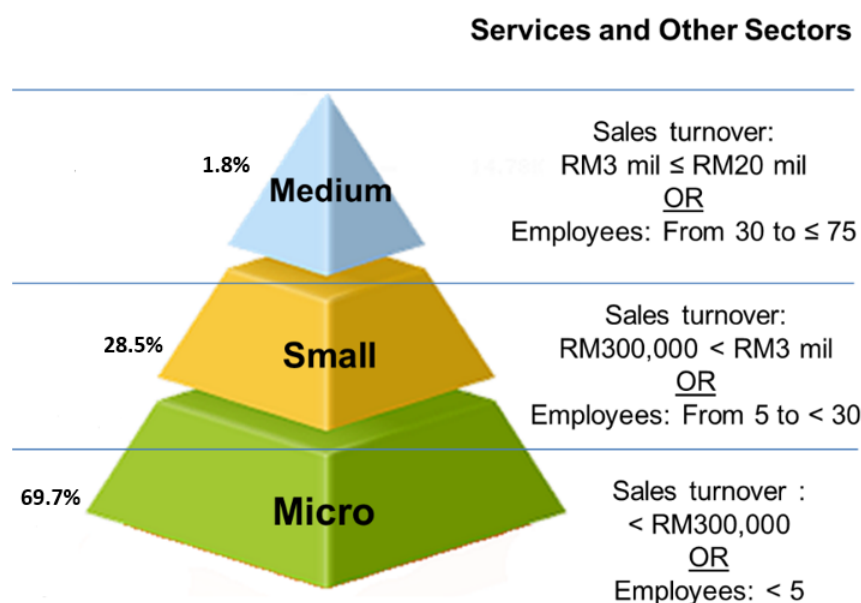
### **2.3.1 The ICT Resellers SMEs in Malaysia**

In March 2024, approximately 1,565,801 firms were registered under the Companies Commission of Malaysia. There are 96.9% micro SME establishments in Malaysia, which contribute 39.1% of the nation's gross domestic product and 48.5% of all jobs, with the remainder coming from major firms (SME Corporation Malaysia, 2024a). The services sector accounts for the majority of SME concentrations (60.8%), followed by manufacturing (22.3%), agriculture (10.5%), construction (4.8%), and mining and quarrying (0.5%), as well as mining and quarrying (0.5%) (Department of Statistical Malaysia, 2022).

The majority of local ICT resellers in the industry are SMEs, and following the definition in SME Corp Malaysia, SMEs are defined as a firm with more than RM300,000 and less than RM20 million in annual revenue or fewer than 75 full-time employees, excluding micro SMEs (MSME), publicly traded enterprises, multinational corporations (MNCs), and Government-linked companies (GLCs) as shown in Figure 2.1 (SME Corporation Malaysia, 2024b). Based on the most recent breakdown of total establishments of MSME in 2023, the micro-firm made up 69.7% (767,421 firms), the small-sized firm made up 28.5% (314,465 firms), and the balance of medium-sized firms made up 1.8% (19,839 firms), as shown in Figure 2.1.

Based on the latest ICT research in 2022, the ICT sector contributed 23.0% to the GDP, with a growth rate of 14.8%. Of this contribution, 13.6% came from the Gross Value Added by the ICT industry (GVAICT), encompassing services, manufacturing, trade, and content and media within the ICT sector. The remaining 9.4% was from e-commerce activities in other industries (DOSM, 2023). For ICT resellers in Malaysia, this indicates a robust and growing market with diverse opportunities across different segments of the ICT industry. Even though there was

a slight drop of 0.4% compared to the previous year, the growth in GVAICT suggests an increasing demand for ICT services and products, which resellers can leverage to expand their business (DOSM, 2022). Additionally, the rise in e-commerce signifies a shift towards digital platforms, allowing resellers to capitalize by offering online sales channels and digital solutions to meet the evolving needs of consumers and businesses.

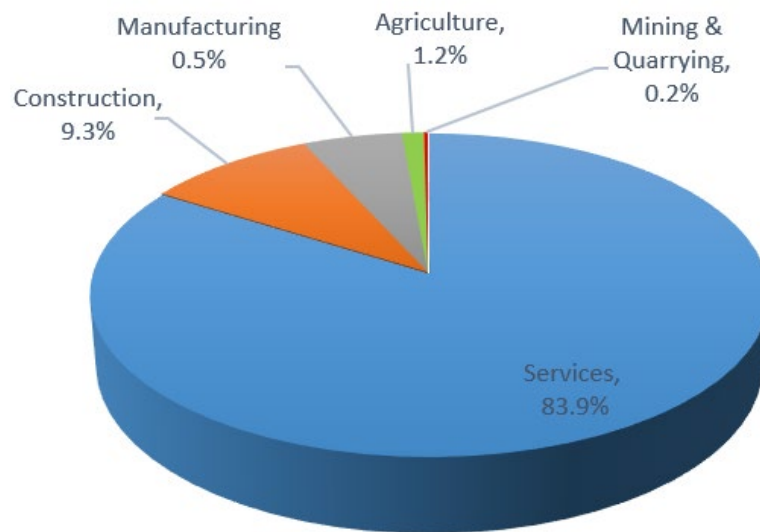


*Source: SME Corporation Malaysia (2024a)*

**Figure 2.1 Malaysia SMEs Classification**

The examination of the portions depicted in Figure 2.2 explains well that the services sector continues to be the main contributor to the SME's activities.

## Key Economic Sectors by MSME 2023



*Source: SME Corporation Malaysia (2024a)*

**Figure 2.2: Key Economic Sectors by MSME**

The Malaysian government's objectives to develop the economy, enhance competitiveness, launch more entrepreneurial ventures, and increase employment possibilities require the digital transformation of the SMEs. The GlobalData Market Opportunity Predictions reported that the top five areas for growth in IT solutions are mobility, cloud computing, data analytics, storage, and business process outsourcing (GlobalData, 2021). This aligns with survey evidence done by the SME Bank Group in 2023, indicating that hiring prospects in the ICT sub-sector of the services sector are the highest, surpassing even the financial services sector (Lynette et al., 2023).

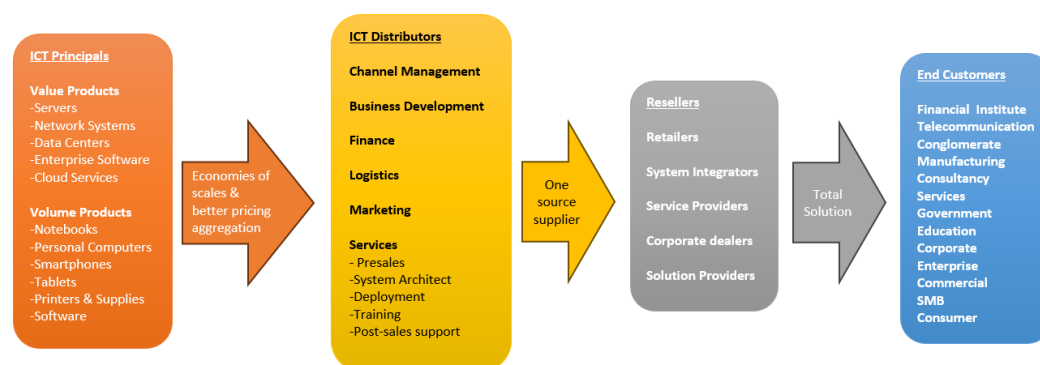
However, these reports were published before the 2020 outbreak of the Covid-19 outbreak. Since the initial movement control in March to September 2020, the pandemic has caused about 32,469 SME closures and brought us close to recession, worsening the outlook for smaller ICT resellers in Malaysia (Tan et al., 2020). The Malaysian economy contracted by 5.6% in 2020, following a 4.4%

increase in the previous year, due to economic restrictions implemented during efforts to combat the COVID-19 epidemic. Based on the time series of Malaysia's GDP and SMEs' GDP, the growth of SMEs' GDP has typically outpaced Malaysia's overall GDP. However, in 2020, SMEs' GDP experienced a decline of 7.3%, marking the first time in 17 years (since 2003) that it fell below the national GDP growth rate (DOSM, 2021).

There were approximately 65,000 fewer SME employees in 2020 compared to 2019 (DOSM, 2021). Due to a shift in priorities, numerous projects have been placed on hold for a prolonged time, causing many smaller ICT resellers to suffer for the time being. This pandemic has dragged on for over a year and a half; in addition to the political uncertainty, many small-scale ICTs struggle to afford their overhead expenditures. Based on the SME Bank group survey, while SMEs are gradually recovering during this economic rebound, the challenging business climate continues to impact their progress. Inflation is the most significant factor, affecting 87% of respondents. This is followed by changes in government and its policies (70%) and the need for digital transformation (68%) (Lynette et al., 2023).

One of Malaysia's major IT distributors, Vstecs Berhad, is expanding into 15 self-managing online businesses on Lazada and Shopee (Liew, 2021). They use their expansive warehouse to lessen their reliance on ICT resellers and increase their profit margin. Most resellers are still clinging to an outdated business model; how they distribute technology does not evolve with the market. These resellers may recognise the significance of adaptability and long-term thinking, but they cannot implement it effectively.

## 2.3.2 The Supply Chain of the ICT Industry in Malaysia



**Figure 2.3 Two-tier Distribution Channels in ICT Malaysia**

*Source: Vstecs (2023)*

As mentioned in the previous section in 2.2, most upstream ICT vendors or principals, which we used interchangeably, will appoint distributors if they expand their business in Malaysia. About 8,000 ICT resellers serve various business sectors, with over 7,000 registered with the leading IT distributors; this includes non-active resellers with no transactions over a year. (Ingram Micro, 2024b; Liew, 2021). In Malaysia's ICT ecosystem, four channels have been formed, and Figure 2.3 shows that the ICT distributors support the ICT resellers in serving the end customers. The business-to-business (B2B) distribution hub provides its business partners with loan terms, warehousing, logistics, staging, and technological expertise.

ICT principals such as HP, IBM, Lenovo, Microsoft, and others will appoint the distributors to manage their relationships with business partners, in this case, ICT resellers. The ICT resellers will service end customers through the B2B channel, except for retailers who may provide both B2B and business-to-consumer (B2C) through their storefront or e-commerce. More prominent principals like HP, IBM, and Dell have been innovating their business models to stay relevant. They have been changing from a standard hardware vendor selling directly to distributors



to subscription-based and even to direct sales for larger customer accounts. The vendor will focus on driving their solutions in depth compared to the distributors or resellers holding so many portfolios. The principals are leveraging the resellers to pursue smaller deals at a high volume (Moore and Smith, 2023).



*Source: Moore and Smith (2023)*

**Figure 2.4 One-tier distribution channel in ICT Malaysia**

In actuality, every upstream vendor discusses year-over-year growth. They will value ICT resellers who can deliver added value and increase revenue. This is a fairly unbreakable cycle, as ICT resellers require principal assistance to close agreements. It generates customer references that can be utilised as persuasive selling factors to persuade further customers of their capabilities. Some software and cloud principals such as Cisco, Microsoft, Red Hat and AWS even have exclusivity for their value-added resellers or managed service providers. These resellers can purchase one-tier distribution channels directly from the vendor, as shown in Figure 2.4. This also indicates that the ICT resellers have invested sufficient resources and can provide consultancy and professional services alone.

Most upstream vendors are moving towards a service-based business model by increasing their revenue by bundling their services and products, which results in significantly higher prices such as HP, Lenovo, Dell, Vmware and Red Hat. If the ICT resellers lack competence, they will be required to finish the proposal by adopting the given total solution. Based on the researcher's working experience in the IT industry, a software vendor's standard per-person-day charge might cost up

to 4 times compared to local resellers. Resellers can partner with other specialised resellers to solve their technical limitations issues (Del Vecchio et al., 2018). Logically, multi-tiering will result in higher prices than local resellers, regardless of whether the vendor performs the task themselves or subcontracts it to other local resellers.

Levitt (1972) widespread incitement that everyone is in the service business has become natural as every firm tries to provide services to a certain degree. Service expansion in product businesses has become one of the most active service research fields, so much so that it has been designated as a strategic research priority (Forkmann et al., 2016; Ostrom et al., 2015). Service expansion may take many forms, such as servitization, hybrid offers, solution integration, and transitioning from hardware to services and product-service systems. It has piqued interest in many areas from front to back.

As the sector changes to cloud computing, data analytics, and application-based solutions, which can mainly be acquired directly from cloud suppliers, the ICT resellers in Malaysia are experiencing a decline in their market share. There used to be a restriction on cloud subscriptions, except for Alicloud, because their data centres were not in Malaysia; however, the government granted conditional approval in early 2021 for four cloud service providers (CSPs) to establish and run their data centres in Malaysia: Microsoft, Google, Amazon, and Telekom Malaysia. Also, only three local ICT resellers were chosen as Managed Service Providers to work with the CSP to serve the whole public sector (Povera and Yusof, 2021). The shrinking cloud opportunities have posed a further challenge to the rest of the ICT resellers.

### **2.3.3 The Significance of a Reseller**

Given the scarcity of studies on ICT SMEs, it's notable that one of the latest available studies was conducted in 2018 by Huawei Technologies (M) Sdn Bhd and SME Corp. According to this study, over 50% of Malaysian SMEs possess an ICT leader mindset, prepared to invest in technology to gain a competitive advantage. Meanwhile, 30% are followers still investing to enhance efficiency, and 20% are highly cautious investors (Huawei, 2018). Another survey conducted in 2021 revealed that the COVID-19 pandemic had exacerbated the gap between leaders and laggards, with leaders growing five times faster than laggards (Accenture, 2021). The leaders seem to accept the innovative technology earlier and continue to invest frequently.

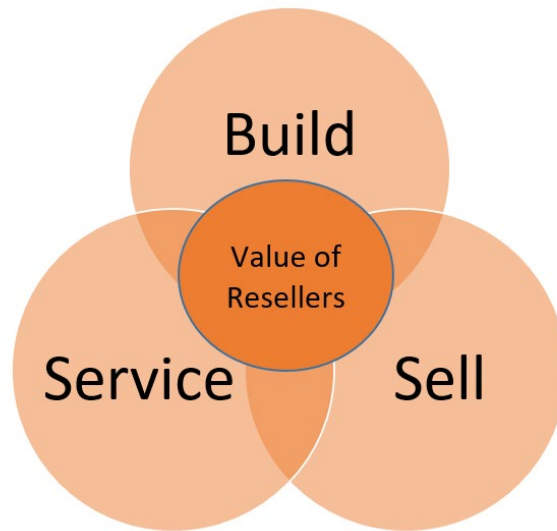
The majority of enterprises in Malaysia must spend to transition from transactional to digital processes, particularly in the wake of the COVID-19 outbreak. These customers are still in their infancy, and ICT resellers will have the opportunity to help them realise their value over the next three years. If ICT resellers mainly rely on box-dropping businesses, it is still not too late for them to reevaluate their business strategy and transition to a service-based one. Consultation before sales, creating and implementing solutions, and managed services or continuing support spanning from hybrid cloud, cyber security, data analytics, and artificial intelligence are the services to be provided to SMEs (Johannesburg, 2020).

Solution providers have some advantages since they can offer complementary services to the vendor's product, such as reduced hardware or software deployment, project management, and first-level support (Müller and Däschle, 2018). Each vendor's ultimate objective is to have ICT resellers serve as their arms and legs to create pipelines in the wide market. This will be the best way to leverage the partner ecosystem to maximize the business value proposition

(Stonig et al., 2022). In contrast, the ICT reseller's worth will be determined by their ability to close opportunities with minimal contact from the vendor to the end customers, demonstrating full control and trust over the account.

In some of the tenders published for public sectors in Malaysia, some stringent requirements exist that not all principal or global service providers can participate in. This includes registration with the Ministry of Finance (MOF) and Bumiputera Status Certificate (STB), which is another way to protect local and indigenous resellers (Ministry of Finance Malaysia, 2023). Therefore, multiple resellers will build the consortium in certain projects to fill the gap.

When the customer asks for a technology roadmap to move themselves to the cloud with great security features and applications, the channel partners or resellers will be able to stitch intricate solutions and orchestrate them to meet customers' needs (El Zoghbi and Chedrawi, 2020). The reseller's strength is integrating the technologies together to create a robust system even though they do not produce them. Besides being the trusted advisor to the customers, the resellers provide a broad customer base that provides the vendors' breadth and scale. Resellers are flexible and capable of having geographic coverage, procurement vehicles and service contracts (Mishra et al., 2021). As shown in Figure 2.5, the resellers will work with technology vendors such as hardware vendors or cloud providers to build the solutions and purchase the hardware and software from the distributors; after all the presales work, resell it with deployment and post-sales services. This mechanism runs at the back, and customers only need to deal with one party, the resellers.



**Figure 2.5 The Value of Resellers**

#### **2.3.4 The Challenges of the ICT reseller SMEs**

The dynamic landscape of ICT reselling presents unique challenges that are pivotal in determining the success or failure of SMEs within this sector. Nikolić et al. (2019) assert that the factors often cited as reasons for business failure mirror those affecting success, suggesting a nuanced approach to understanding these determinants. The top three digitalization problems encountered by SMEs, according to SME Corp Malaysia, are funding (49%), staff skillset and resource limitations (48%) and inadequate technology (48%) (Tong and Gong, 2020; Hu, 2017). However, regarding skill upgrading, Bank Negara Malaysia reported that 54% of Malaysian employment would likely be automated for the next 20 years, with most jobs needing ICT skillsets (Kylasapathy et al., 2018). These technological advancements will result in a noticeable shift in skills demands. The market has transitioned from selling hardware to selling services, as seen by the actions taken by the leading vendors. It is audacious to assert that the only way out for ICT resellers is to consider services as their key driving factor, in addition to products.

Economic uncertainties demand rapid adaptation from Malaysian SMEs, often with insufficient financial support. As identified by Yadav et al. (2018), these challenges can compel SMEs to divest assets prematurely, particularly when decisions are made hastily or with limited foresight, a concern highlighted by Huang (2009). Furthermore, strategic management decisions, such as resource allocation and investment, play pivotal roles in navigating these difficulties (Leiblein et al., 2018). This critical backdrop sets the stage for examining how dynamic capabilities within strategic management frameworks can help these SMEs maintain competitiveness and business sustainability. Addressing these challenges in the literature review will demonstrate how effective resource management and stakeholder engagement, bolstered by dynamic capabilities, enable SMEs to respond adaptively to market volatilities, aligning operational strategies with broader policy objectives to enhance business sustainability.

Smaller ICT firms are struggling to retain skilled employees and may not be able to compete with global or large ICT firms that can afford to employ many experts. Therefore, resellers will need to establish a niche in which they can excel and build a competitive advantage (Bradley et al., 2022). ICT resellers must continually assess and enhance their value proposition to align with the evolving customer needs and market trends.

Unlike other industries, selling in ICT will have an overlapping role among their sellers. Based on the observation from the researcher, an account manager from MNC's vendors, business development managers from distributors, and ICT resellers could be seen approaching the same customer and promoting the same product. All three try to show values from different turf, hoping to be part of the opportunities. This shows that the competition is not limited to products but also channels.

The market has shifted from hardware to services, driven by the need for a service-oriented approach. Many experts agree that to transition to the product-service model; resellers must strengthen their ties with the stakeholders and expand their personalised services (Pellizzoni et al., 2020; Forkmann et al., 2016). Forkmann et al. (2016) stated that reducing vendor and customer engagement will make the interaction between vendors and resellers more significant. Resellers must be able to equip themselves with technical knowledge and the process knowledge they should already possess to achieve this level of success. Moving into the service continuum highlights the significance of an organisation's culture, structure, dynamic capabilities, networking, and resources (Pellizzoni et al., 2020; Forkmann et al., 2016; Sklyar et al., 2019; Marcos-cuevas et al., 2016; Story et al., 2016; Bjurklo et al., 2009; Neu and Brown, 2005). There are two types of key services:- product-based services that support the vendor's products and customer-based services that support the customer's activities relating to the vendor's products (Visnjic et al., 2016).

The role of the ICT resellers has weakened during the move to the cloud, a trend accelerated by the pandemic. It is quite hard for the software vendor to find the sweet spot for the involvement of the channel partners to earn money like they used to do during the traditional model. Software vendors are now creating new revenue streams by partnering with cloud ecosystem providers, reducing the traditional service implementation revenue for resellers (Guo et al., 2019). It is still the services that are being recommended that will bring the value of the resellers to the whole ecosystem. Digital transformation ensures steady demand for professional services over the next decade, but resellers must innovate their business models to achieve new growth goals (IDC Corporate, 2023). It will be

impossible for the resellers to do the same thing but expect things to be different and achieve new growth goals.

Further dissecting the intricacies of business failures, Ahmad and Seet (2009) offer an empirical perspective from the Malaysian context, shedding light on why some SME owners may choose to limit their business growth. Beyond broad financial and strategic constraints, Malaysian ICT resellers emphasise 'softer' issues, such as the challenges related to personal contacts and customer relationships. This highlights the cultural importance of interpersonal connections in business. This insight underscores the need for IT resellers to recognise and rectify ineffective behaviours that impair their ability to sense market shifts and customer needs—a fundamental aspect of dynamic capabilities. Such ineffective behaviours extend beyond the lack of strategic planning, leading to an ambiguous business direction, encompassing poor financial management practices. Understanding and addressing these behaviours are not merely operational adjustments but strategic imperatives that can significantly impact SMEs' resilience and growth trajectory.

In summary, ICT resellers are now facing great challenges in their weakening role, and their value is diminishing. While these SMEs are known for their agility and adaptability, they nonetheless face considerable short-term survival struggles (Wheelwright, 2019). Using the pandemic as an example, in a global survey, HSBC (2020) reported that 98% of businesses were impacted and faced the greatest recovery challenge, with 58% focused only on short-term planning. The SMEs in Malaysia are not spared; they are particularly vulnerable to irregular disruptions, such as the effects of post-natural disasters, because they lack institutional support and are unprepared to manage adverse risks.



Addressing these multifaceted challenges requires more than just reactive measures. ICT resellers in Malaysia must adopt a sustainable model that integrates effective resource management, stakeholder engagement, and dynamic capabilities. Effective resource management ensures that financial, human, and technological resources are optimized for long-term growth and operational efficiencies. Stakeholder engagement helps build strong relationships with customers, suppliers, and partners, fostering trust and collaboration. Developing dynamic capabilities enables these SMEs to be agile, quickly adapting to market changes and technological advancements.

The researcher is of the opinion that by incorporating these strategies, ICT reseller SMEs can better navigate the evolving technological landscape and sustain their businesses amidst changing market demands. This approach addresses immediate challenges and positions these SMEs for future resilience and growth.

***Proposition #1: ICT reseller SMEs in Malaysia face significant competitive pressure from market dynamics and evolving consumer behaviours, diminishing their value while impacting profit margin and sustainability***

## **2.4 Business Sustainability**

The primary aim is to establish a BMI framework supporting business sustainability, so understanding the various aspects and theories of business sustainability is crucial. Business sustainability is a multifaceted concept encompassing environmental conservation, social responsibility, and long-term viability. This section delves into the literature to explore different perspectives and theories contributing to our understanding of business sustainability and its implications for organisations.

Most individuals believe that sustainability involves conserving the environment and contributing to society. Everyone in business hopes for longevity, which is why the importance of this topic has increased in recent years. Sustainability is rooted in the capacity to endure misfortune and maintain ecological balance by conserving natural resources (Oxford Learner's Dictionaries, 2023). The Brundtland Report by the World Commission on Environmental Development, published thirty years ago, introduced the widely accepted definition of sustainability as "the capacity to meet the needs of the present without compromising the ability of future generations to meet their own needs" (Schaltegger et al., 2016b). However, the understanding of sustainability goes beyond environmental concerns and encompasses practices such as reducing environmental impact, promoting social responsibility, and ensuring economic viability. In practice, this can mean implementing environmentally friendly policies, supporting ethical business practices, and investing in renewable energy. Additionally, organisations may also focus on achieving sustainability in their supply chains, products, and services.

In business, sustainability is about creating resilient and long-lasting organisations (Girotra and Netessine, 2013). A sustainable business seeks to improve societal and environmental standards while remaining profitable. This shift towards economic sustainability involves a departure from a sole focus on profit and incorporating social and environmental considerations, which strikes a balance between the three realms. This people, planet, profit concept by Elkington (1997) is also known as the "triple bottom line" (TBL). TBL has three components: social, environmental, and economic. In traditional accounting, the bottom line is profit. The TBL framework emphasises integrating social, environmental, and economic factors in business decision-making, expanding traditional accounting practices to

measure success more comprehensively and sustainably (Slaper and Hall (2011). Wider acceptance of the TBL strategy has emerged. By embracing this framework, organisations can strive for sustainable development while considering the interests of all stakeholders (Schaltegger et al., 2016b; Boons and Lüdeke-Freund, 2013).

Numerous definitions of sustainability exist, reflecting its multifaceted nature (Johnston et al., 2007). Sustainability is also associated with various related terms such as social enterprise, sustainable business, shared value creation (Porter and Kramer, 2011), inclusive capitalism (Schwab, 2016), corporate responsibility (Elkington, 1997), circular economy (Ranta et al., 2021) and corporate citizenship (Nawaz and Koç, 2019). Ultimately, all these terms converge on sustainable development (Wijen, 2021). According to Steurer et al. (2005), the idea of sustainable development—also known as business sustainability—has become more widely used since the publication of the Brundtland report. While often misinterpreted as solely saving the planet, sustainable development, according to Wijen (2021), encompasses uplifting individuals out of poverty and judiciously managing resources. Meeting stakeholders' needs and balancing economic, environmental, and social dimensions are pivotal in defining corporate sustainability. The TBL framework is frequently employed to operationalize corporate sustainability.

For instance, Jamali (2006) proposes that incorporating the TBL into management strategy aids companies in pursuing sustainable development. Markley and Davis (2007) suggest that focusing on the TBL enables firms to enhance their competitive edge. However, certain studies criticize the value of the TBL. argues that TBL reports fail to fully capture the essence of sustainability and that the conflict between sustainability and profit retention remains unresolved.

Evans et al. (2017) link five propositions to develop a comprehensive understanding of sustainable business models: BMI, sustainability innovation, stakeholder theory, networks theory, and product-service systems. They advocate for a unified perspective that achieves better economic, environmental and social performance. Adams et al. (2013) emphasise that sustainability innovation necessitates holistic thinking and reconfiguration of several business components, including capabilities, stakeholder relationships, knowledge management, leadership, and culture.

Boons and Lüdeke-Freund (2013) highlight the mismatch between stakeholders' perceptions of sustainability and the actual measurement of sustainable innovations. They argue that future studies should focus on the actors involved in value creation, with particular attention to the value proposition, supply chain, customer interface, and finance model as fundamental parts of a business model facilitating sustainability innovation.

Traditionally, business models have primarily focused on generating economic value, neglecting the environmental and social dimensions that have gained prominence in current literature. Geissdoerfer et al. (2018) underline the shift from customer and shareholder value to stakeholder value and benefit, characterizing a sustainable business model as one that incorporates proactive multi-stakeholder management and provides value, both monetary and non-monetary, over the long term.

Stakeholder theory plays a crucial role in driving business sustainability. It highlights the importance of considering the interests and expectations of various stakeholders, such as employees, customers, suppliers, and the community. Engaging with stakeholders and addressing their concerns is key to developing sustainable practices (Freeman, 1984). By aligning their activities with stakeholder

needs, organisations can create value while minimizing negative social and environmental impacts. The significance of stakeholder theory in driving business sustainability will be further discussed in section 2.4.2 on Stakeholder Theory.

Sustainable business models offer an additional perspective on corporate sustainability, complementing the TBL framework's operationalization of sustainability in the business context. Changes in business models are commonly regarded as a fundamental driver of innovation for sustainability. Management and business strategy studies have progressively integrated sustainable development to foster innovative diversification and enhance theoretical foundations (Evans et al., 2017). There are some hypothesised similarities among the methods of sustainability, such as a) enhancing sustainability involves modifying or innovating components related to the business environment (Faber et al., 2009); b) that the ability to innovate sustainably is a critical organisational capability, regardless of the nature of the innovations (Evans et al., 2017); and c) BMI is gaining popularity as a method for integrating sustainability into business operations (Foss and Saebi, 2017; Schaltegger et al., 2016b).

According to Bocken et al., (2014), sustainable business models incorporate the TBL approach and consider multiple stakeholder interests, outlining how enterprises gain a competitive advantage through their products or services. These models assist businesses in integrating sustainability into their operations to enhance competitiveness.

Several studies have explored how sustainable business models can enhance a company's competitiveness (Aagaard, 2019a; Lüdeke-Freund et al., 2018; Schaltegger et al., 2016). It is generally acknowledged that corporate social responsibility and corporate sustainability are interconnected. While many academics, including Steurer et al. (2005), consider these two ideas to be

equivalent, others contend there are slight distinctions between the two. Montiel (2008) did a thorough review to look into the development of the ideas of corporate social responsibility and corporate sustainability. His analysis indicated that management literature employs corporate social responsibility and corporate sustainability to refer to social and environmental management challenges with converging conceptualisations and metrics.

Even so, the context of business model, BMI, and sustainable business model remains hazy, inconsistent, and devoid of conceptual consistency, particularly in terms of theoretical foundations (Teece, 2018; Boons and Lüdeke-Freund, 2013; Osterwalder and Pigneur, 2005). There is no consensus on the categorization, identification, and boundaries of these concepts (Spieth et al., 2014), resulting in divergent perspectives that significantly impede and even halt the development of these fields (Zott et al., 2011). In short, there is no clear image of how companies in various industries can incorporate sustainability into their business model (Nosratabadi et al., 2019).

According to Malaysia Business Sustainability Pulse Report 2022, half of the participating companies agreed that the government and customers are the key drivers of sustainability, followed by shareholders and employees. A closer examination of the data reveals that SMEs prioritize economic or financial benefits above social benefits, whereas larger enterprises place a greater emphasis on environmental and social when discussing sustainability. This discrepancy may stem from larger enterprises facing pressure from global or larger players in their value chain, particularly given the urgency of taking urgent climate action. In contrast, SMEs still prioritize economic factors due to inflationary pressures and the global recession (UN Global Compact Network Malaysia & Brunei, 2022).

Developing an optimal strategy for creating and evolving a business model can be challenging for firms, especially when considering BMI for sustainability. Complexity arises in identifying the influence of sustainability innovations and understanding their implications within the overall company network. This research aims to establish a uniform approach to sustainable BMI for ICT reseller SMEs, investigating the relationship between BMI and sustainability.

In addition to the research on sustainable BMI, two important perspectives provide insights into achieving sustainable competitive advantage and driving sustainability goals. The resource-based view offers insights into how organisations can leverage resources to achieve sustainable competitive advantage. This theory suggests sustainable business practices can be a source of differentiation and long-term success (Barney, 1991). By effectively managing and deploying resources, organisations can develop capabilities that support sustainable practices, enhance reputation, and drive competitive advantage.

Furthermore, dynamic capabilities theory emphasises the importance of innovation, adaptation, and learning in achieving sustainability goals (Teece et al., 1997). Organisations need to develop the ability to respond to environmental changes and integrate sustainability into their strategic management processes (Teece et al., 1997). By fostering a culture of continuous learning, organisations can identify and seize opportunities to innovate in sustainability, creating a positive impact on the environment, society, and their own performance.

In summary, business sustainability requires organisations to go beyond traditional profit-driven approaches and integrate social, environmental, and economic considerations into their strategies and operations. By embracing stakeholder engagement, leveraging resources effectively, and fostering dynamic capabilities, organisations can develop sustainable practices that create value for all

stakeholders. Understanding and implementing these concepts is crucial for organisations aiming to achieve long-term viability and contribute to a more sustainable future.

#### **2.4.1 Sustainability in Organisations**

Understanding the meaning and implications of sustainability for organisations is essential in exploring the role of sustainability in organisational practices and strategies. This section aims to delve into different perspectives, definitions, and dimensions of business sustainability and how they shape organisations' understanding of sustainability.

The current COVID-19 pandemic has emphasised the importance of sustainability, prompting governments, entrepreneurs, and managers to rethink their policies and business models to be more resilient (Schaltegger, 2020). It is common for SMEs not to have formal strategies, but Smet et al. (2021), Taneja et al. (2016) and Porter and Kramer (2011) pointed out that including the sustainability lens in the strategic planning framework helps to align economic, environmental and social values. Entrepreneurs of SMEs in Malaysia have demonstrated a strong awareness of the significance of sustainability principles for their business performance, as found by Ahmad et al. (2020). A recent study of ten Malaysian SMEs facing rapid change and external disruptions found it essential for companies to secure business continuity at their peak vitality. This approach helps prevent loss of strategic opportunities and maintains momentum for change (Sapian, 2024).

Globalization, knowledge, innovation, and technological entrepreneurship all contribute to the emergence of a new entrepreneurial landscape (Porter, 1990; Roja and Năstase, 2014). Sustainability studies have expanded to various areas, including entrepreneurship, economics, environment, society, and business innovation (Schaltegger et al., 2019; Geissdoerfer et al., 2018). This expansion has



stimulated a growing body of academic research (Yang et al., 2017a; Schaltegger et al., 2016b; Boons and Lüdeke-Freund, 2013). Hence, the business model for sustainability has become increasingly diverse and complex as a result of advancements in the field of sustainability management, corporate sustainability, sustainability innovation and sustainable entrepreneurship (Lüdeke-Freund et al., 2018; Dyllick and Muff, 2016; Dyllick and Hockerts, 2002; Schaltegger et al., 2019, 2016b).

Companies in the past focused on innovating products, processes, and technology to achieve sustainable value (Hansen et al., 2009). However, creating sustainable value today requires considering a wide range of factors related to sustainable development, such as technologies, markets, and stakeholders, due to multidimensional challenges (Geissdoerfer et al., 2017). Sustainability in business also means maintaining the adequacy of resources, suppliers, customers, innovation and conserving natural resources through regulating consumer habits (Schaltegger et al., 2019). These advancements alter the sense of equilibrium between various stakeholders (Teece, 2010) by permitting businesses to engage in economic transactions in diverse ways (Zott and Amit, 2007).

However, the path to sustainability necessitates a shift in company objectives and tactics (Bocken et al., 2014). Strategies alone are insufficient and must be supplemented with BMI to provide organisations with more lasting value (Hansen et al., 2009; Schaltegger et al., 2012). This is due to the lack of an analogous ontology to explain the robust, sustainable business model (Upward and Jones, 2016). Therefore, businesses should find originality in activities that contribute to the development of a novel business model (Wang and Chebo, 2021).

Research on sustainable companies and innovation has increased rapidly in recent years as sustainable development has become a new business imperative

(Foss and Saebi, 2017; Geissdoerfer et al., 2016). It is necessary to modify our way of thinking and evaluating organisations and their business models in order to apply innovation as a medium for creating lasting value. However, when considering the theoretical concepts of sustainable business models, it is important to understand the original definitions of business models.

The emergence of tools designed to assist businesses in achieving their sustainability goals by leveraging BMI is a relatively recent phenomenon. Bocken et al. (2014), Evans et al. (2017), Geissdoerfer et al. (2016), Joyce and Paquin (2016), Lüdeke-Freund et al. (2018), Upward and Jones (2016), and Yang et al. (2017) are a few examples of researchers that have produced tools for the innovation of sustainable business models.

Sustainable competitive advantage has been the core focus of strategic management theories, attracting interest from industrial organisation economics, the resource-based perspective, and dynamic capabilities. The concept of sustainable competitive advantage is distinct from that of corporate sustainability. The majority of strategy theorists argue that organisations may develop a sustainable competitive advantage, enabling them to generate above-average profits. For instance, industrial organisation economics believes that corporations establish lasting competitive advantages by erecting mobility obstacles that cushion competition and retain economic rents (Bansal and Desjardine, 2014).

From the perspective of the Resource-Based View (RBV), sustainability is seen as a strategic asset, an integral part of the unique resources and capabilities that enable organisations to achieve and sustain competitive advantage (Barney, 1991). Stakeholder theory further expands this view, emphasising the need for organisations to consider the interests and well-being of all stakeholders, including customers, employees, suppliers, communities, and the environment, in their

operational and strategic decisions (Freeman, 1984). The dynamic capabilities view acknowledges that a competitive advantage can be maintained by recognizing, seizing, and rearranging processes in changing environments (Teece et al., 1997).

Sustainability is a multidimensional concept that goes beyond the traditional focus on economic considerations. It involves the integration of environmental, social, and governance factors into organisational practices (Elkington, 1997). To achieve true sustainability, organisations need to recognize and account for the interdependencies between these dimensions. One approach that captures this holistic perspective is the concept of the six capitals framework, which recognizes six different forms of capital: financial, manufactured, intellectual, human, social and relationship, and natural capital (Jones, 2012).

Sustaining a firm entails ensuring that it does not exhaust the resources (financial, human, and material) it requires to thrive. This also implies that a business operates in such a way that it is profitable and will continue to be successful soon. A firm cannot be sustainable unless it considers factors other than profit, such as people and the environment (Orobia, 2020). The literature on sustainability in business generally aims to comprehend how a company can simultaneously generate profit while reducing its negative impact on the environment and enhancing its reputation for ethical behaviour.

Sustainability in organisations demands a rapid and efficient adaptation to evolving market conditions, regulatory landscapes, and societal expectations. This necessity has brought the concept of incorporating dynamic capabilities and agility into the forefront (Teece et al., 1997). Such agility is crucial, as it enables organisations to capitalize on new growth and innovation opportunities while simultaneously mitigating risks associated with sustainability challenges (Doz and Kosonen, 2008).

Furthermore, the concept of sustainability is intrinsically linked to organisational growth and resilience. Sustainable practices are increasingly recognized as vital to long-term organisational growth, as they help companies adapt to and thrive in a changing world (Bansal, 2005) (Bansal, 2005). Resilience, in this context, refers to the capacity of organisations to withstand and recover from external shocks, be they environmental, economic, or social (Ortiz-De-Mandojana and Bansal, 2015). Sustainability-oriented strategies contribute to this resilience by promoting a balance between short-term gains and long-term sustainability goals (Linnenluecke and Griffiths, 2010)

In conclusion, this section has shed light on the significance of sustainability for organisations, highlighting its expanding scope and complexity and the need for an integrated approach. The importance of incorporating sustainability into strategic planning has been emphasised, as it aligns economic, environmental, and social values and promotes resilience in the face of global challenges. The role of BMI in achieving sustainability goals has been discussed, emphasising the need for organisations to develop novel and sustainable business models that provide long-lasting value. Furthermore, the relationship between competitive advantage and sustainability has been explored, recognizing the potential for organisations to generate above-average profits by considering factors beyond financial gains. Overall, this section has provided valuable insights into the understanding of sustainability and its implications for organisations in their pursuit of sustainable goals.

#### **2.4.2 Business Sustainability Factors for ICT Reseller SMEs**

Given the importance of SMEs in the Malaysian economy and their significant challenges, it is essential to understand the determinants that can contribute to their business sustainability. Global evidence suggests that the

capacity for agility in SMEs—the ability to rapidly adapt to market changes and customer needs—is not merely an operational advantage but a survival imperative (Miceli et al., 2021). Growth, often measured in terms of increased market share, revenue, and employee numbers, has been extensively studied as a hallmark of successful SMEs, highlighting the role of scalable business models and market expansion strategies (Gilbert, McDougall, & Audretsch, 2006). Resilience, the ability to withstand and recover from setbacks, is increasingly recognized as critical, especially given the disruptive nature of contemporary business ecosystems (Bachtiar et al., 2023; Miceli et al., 2021).

SME growth determinants are multifaceted and can be influenced by both internal and external factors (Kindström et al., 2024). Research has shown that the ability of SMEs to grow and remain profitable is not solely contingent upon a single aspect of business operations but rather a combination of various dimensions of knowledge management, which significantly impacts their performance (Omerzel, 2010).

Perényi and Yukhanaev (2016) argue for a holistic model that promotes sustainable growth and improves organisational efficiencies. This perspective aligns with the assertion by Leitner and Guldenberg (2010) that a blend of generic strategies and strategic changes over an extended period can foster greater profitability and expansion. Considering the dynamic and often volatile technological marketplace, it is critical to identify strategies to mitigate revenue stagnation or decline in the context of Malaysian ICT reseller SMEs.

Understanding the sources of failures is equally vital, as it provides insights into critical success factors, which necessitate a firm's commitment to improving performance through strategic orientation on growth (Ahmad and Seet, 2009; Webb, 2004). However, while government support is pivotal in reducing business

failure risks (Gourinchas et al., 2020), there is a compelling requirement for a profound understanding of policymaking to enable firms to create value for sustainability (Amankwah-Amoah et al., 2020; Lepak et al., 2007).

The firm's size and attributes significantly influence its strategic growth posture (Garcia-Martinez et al., 2023), so challenges must be tailored to the firm's needs (Lohana et al., 2021). Delmar et al. (2003) argue for considering multiple growth indicators beyond mere assets and market share. Key variables influencing growth include the effective deployment of human capital and resource utilization (Muda et al., 2022), as well as a strong strategic posture and stakeholder management (Remme and de Waal, 2020).

When contextualized within Malaysia, these global findings take on new dimensions. The country's growing digital economy presents a fertile ground for ICT reseller SMEs, yet the same growth potential also exposes these firms to intense competition and rapid obsolescence (Saleh and Ndubisi, 2006). Malaysian SMEs' agility is thus tested by their ability to leverage local market knowledge and adapt global best practices to their advantage. Growth in the Malaysian context is often tied to the ability of the SMEs to navigate the regulatory landscape and harness government initiatives designed to bolster the ICT sector (Thurasamy et al., 2009). As for resilience, the ability to sustain operations amidst economic and policy shifts is paramount, requiring a robust understanding of risk management and strategic planning (Zavala-Alcívar et al., 2020).

In the pursuit of sustainability and competitive advantage, ICT reseller SMEs in Malaysia must navigate through a complex interplay of business dynamics that demand agility, growth, and resilience. Theoretical frameworks in business model literature provide a lens through which these elements can be operationalized, offering structured pathways for SMEs to innovate and thrive. This

introduction sets the stage for a critical evaluation of existing business model frameworks, assessing their relevance and adaptability to the nuanced needs of ICT reseller SMEs.

The Business Model Canvas Osterwalder and Pigneur, (2010) offers a visual chart with elements describing a firm's value proposition, infrastructure, customers, and finances. This framework facilitates an understanding of how agility can be infused into business operations, allowing SMEs to pivot rapidly in response to market changes. The Dynamic Capabilities Framework Teece et al. (1997) shifts the focus to the processes that enable an organisation to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments, encapsulating the essence of growth and resilience.

The Resource-Based View (Barney, 1991) for ICT reseller SMEs is particularly pertinent, as it underscores strategic resource management as a cornerstone for achieving sustained competitive advantage. Coupled with the Stakeholder Theory (Freeman, 1984), which emphasises the importance of stakeholder relationships in value creation and trade, these frameworks collectively provide a comprehensive toolkit for examining and implementing robust business models that can withstand the test of evolving industry landscapes.

Together, these theoretical frameworks serve as a foundation for ICT reseller SMEs to construct business models that respond to market exigencies and proactively shape their growth trajectories. This introduction primes an in-depth exploration of how these frameworks are operationalized in the context of Malaysian ICT resellers, aiming to identify best practices and adapt strategies for enhanced sustainability. In light of novel external disruptions, SME owner-managers may contemplate exiting the business. The knowledge and resource

context can enable firms to adapt and generate growth (Amankwah-Amoah et al., 2020).

## **2.5 Business Model**

Peter Drucker's research on business models in the 1950s laid the foundation for understanding how businesses create value. This concept gained momentum during the e-commerce surge of the 1990s and evolved further as Business Model Innovation (BMI) emerged as an extension of classic business model thinking (Leminen et al., 2018; Foss and Saebi, 2017; Massa et al., 2017; Chesbrough et al., 2018). While there is widespread consensus that a business model describes how a business generates, captures, and delivers value (Sjödin et al., 2020; Chesbrough et al., 2018; Foss and Saebi, 2018; Teece, 2010; Osterwalder and Pigneur, 2010), there is still no universally agreed-upon definition of a business model in the literature (Morris et al., 2005; Osterwalder and Pigneur, 2005; Zott et al., 2011).

Indeed, a business model is described in a variety of ways, such as an architecture (Timmers, 1998), a statement (Stewart and Zhao, 2000), a description (Doganova and Eyquem-Renault, 2009), a method (Afuah and Tucci, 2003), a structural template (Amit and Zott, 2001), a framework (Bocken et al., 2015), a representation (George and Bock, 2011) (Osterwalder and Pigneur, 2005).

In practice, many business model studies do not define the concept clearly. Yet most researchers agree that business models outline how organisations function in the marketplace to create value (Osterwalder and Pigneur, 2005; Casadesus-Masanell and Ricart, 2010; Teece, 2010). Business models are typically regarded as the simplified forms of value proposition, value creation and delivery, value capture, and how these elements connect within an organisation.



Shafer et al. (2005) classify up to 20 business model components into four primary categories, but Osterwalder and Pigneur (2010) identify nine distinct business model pillars. Recent developments in business model thinking have shifted the focus from understanding "what business models are" to "what business models are for" (Achtenhagen et al., 2013). Some researchers also argue that business models are systemic, interconnecting firms in broader ecosystems (Rajala and Westerlund, 2008; Zott et al., 2011; Zott and Amit, 2008; Muegge and Mezen, 2017). As ecosystems grow increasingly complex, a network-level perspective becomes essential (Leminen et al., 2018).

Adopting appropriate business models in the digital world helps companies adapt swiftly and make higher-quality strategic decisions (Al-debei and Avison, 2010). Business models can create value for companies by collaborating with suppliers or partners to serve customers and by creating value with stakeholders and involved parties (Osterwalder and Pigneur, 2005; Westerlund et al., 2014; Freeman and McVea, 2001). Two of the most cited business model concepts, by Chesbrough (2007) and Osterwalder and Pigneur (2010), identify and characterise the parts that compose business models, which enables the examination of how organisations create and deliver value. Both frameworks share key components, including cost structures and value propositions. However, they differ in their approach to competitive strategy; Chesbrough (2007) explicitly includes it, while Osterwalder and Pigneur (2010) treat it as separate from the business model.

The Business Model Canvas by Osterwalder and Pigneur (2010) is widely recognized for its clarity and simplicity, although critics note it does not deeply account for competitive pressures or sustainability (Aagaard, 2019b). It offers a static snapshot, which may not capture the dynamic process, the "how" of continuously adapting a business model. This research aims to fill that gap by

looking beyond static representations and exploring more fluid, sustainable models that can evolve in response to market and environmental changes.

## **2.5.1 Business Model Innovation (BMI)**

### **2.5.1.1 Introduction**

Over the past decade, business model discussions have expanded from outlining basic elements to emphasising innovation. BMI marks a departure from limiting innovation to products or processes alone (Amit and Zott, 2020). Instead, it transforms the business model by reconfiguring elements like firm activities, value propositions, or even entire supply networks (Osterwalder and Pigneur, 2005; Desyllas and Alexy, 2020; Demil and Lecocq, 2010). Unlike purely technological breakthroughs, BMI targets enhancing or extending the organisation's current offerings to engage new customers or deepen relationships with existing ones (Markides, 2006).

BMI is often viewed as an extensive reconfiguration of how a business operates (Casadesus-Masanell and Zhu, 2013; Doleski, 2015). When adopted strategically, BMI can connect current market players in novel ways, often through digitally supported activities and enhance the value proposition for stakeholders (Zott and Amit, 2017). Indeed, innovation dominates the literature on business models as a strategy for gaining competitive advantage and renewing organisational capabilities (Boons and Lüdeke-Freund, 2013).

BMI has emerged as a key priority for organisations, attracting the interest of practitioners and researchers alike. Various paths of BMI have been identified, such as industry model (innovating value chain), revenue model (innovating revenue stream/pricing model) and enterprise model (innovating internal/external

processes and linkages), all leading to favourable outcomes (Giesen et al., 2007). Yet, definitional ambiguity remains a primary hurdle, and it is challenging for researchers to develop robust theories and conduct empirical tests (Foss and Saebi, 2017; George and Bock, 2011).

In their systematic literature review, Foss and Saebi (2017) identify four interconnected research lines on BMI: (1) conceptualisation and categorisation of BMI, (2) changing the process of employing BMI by emphasising capabilities, leadership, and learning mechanisms, (3) research on the outcomes of BMI, and (4) research on the effects of BMI. This study aligns partly with the first line, aiming to conceptualize and categorise BMI in the context of ICT reseller SMEs in Malaysia, and also touches on the second line by examining how leadership and learning enable or hinder BMI shifts. While this research will discuss the potential effects of the proposed BMI framework on the sustainability and growth of ICT reseller SMEs, it will not empirically test those effects, placing it more within a more theoretical or speculative nature.

#### **2.5.1.2 Theory-Based Conceptualization of BMI**

Although many studies do not explicitly reference a single guiding theory but draw instead on well-known frameworks such as the resource-based view (RBV), transaction cost economics (TCE), activity system perspectives (Zott and Amit, 2010) and dynamic capabilities (Peng et al., 2019; Teece, 2018). In the context of RBV, researchers argue that unique resources can spur innovative business models and offer competitive advantages, particularly in the SME sector (Aydiner et al., 2019; Al-debei and Avison, 2010). By contrast, TCE emphasises cost minimization through optimal governance, directing attention to efficiency gains while sometimes overlooking the novelty dimension crucial for BMI structures (Ketokivi and Mahoney, 2016; DaSilva and Trkman, 2014).

From the activity system perspective, Zott and Amit (2010) highlight how creative business models may be constructed using design themes by novelty, lock-in, complementarities, and efficiency in explaining the source of value generation. These design themes and elements like content, structure, and governance define how value is created through interconnected activities. Nevertheless, initial explorations of activity systems did not account thoroughly for value capture, a gap addressed by Ramdani et al. (2019), who illustrate how innovative business models can achieve effective value capture mechanisms.

In parallel, the Dynamic Capability framework views BMI as an iterative process of trial-and-error learning, emphasising dynamic consistency and resource reconfiguration (Sosna et al., 2010). Scholars such as Demil and Lecocq (2010) show that “dynamic consistency” enables firms to innovate while maintaining operational performance. Mezger (2014) frames BMI as a dynamic competence encompassing opportunity identification, novel business model design, and resource reconfiguration. Mason and Spring (2011) looked at BMI in the recorded sound industry using components of practise theory and discovered that it may be done through various combinations of managerial practises. Ricciardi et al. (2016) extend this discussion, illustrating how the integration of paradoxical management and dynamic capabilities can foster an adaptive BMI, as evidenced in their research on Italian SMEs.

Sjödin et al. (2020), Chesbrough et al. (2018), Foss and Saebi (2018), Teece (2010), and Osterwalder and Pigneur (2010) investigate BMI as a method of establishing a new value proposition and refining how firms generate and deliver value to stakeholders. Numerous studies highlight the vital role of BMI in enhancing sustainability and performance (Teece, 2010; Casadesus-Masanell and Zhu, 2013; Bock, 2010); , while research focusing on dynamic viewpoints indicates

the crucial link between BMI and business model innovativeness (Hacklin et al., 2018; Massa et al., 2017; Zott et al., 2011). Scholars increasingly recognize BMI as critical to firm success (Futterer et al., 2018; Zott et al., 2011), and it drives competitiveness and performance (Visnjic et al., 2018; Kim and Min, 2015; Breasolis et al., 2015) in a variety of conceptualisations (Morris et al., 2005; Zott et al., 2011). As a result, BMI often signifies shifts in a firm's value configuration (Fjeldstad and Snow, 2018).

Even though BMI entails updating one or more parts of a current business model, the underlying logic of the business model must be continuously innovated in order to remain relevant (Futterer et al., 2018; Spieth and Schneider, 2016) and this includes the value offering, value generation architecture, and financial logic (Spieth and Schneider, 2016; Osterwalder and Pigneur, 2010; Teece, 2010; Yunus et al., 2010; Chesbrough and Rosenbloom, 2002).

#### **2.5.1.3 Value Creation, Delivery and Capture in Business Model Innovation (BMI)**

Understanding the multifaceted nature of value within business models is critical to grasping the scope of BMI. Futterer et al. (2018) suggested that value creation should be viewed both internally and externally. The internal domain encompasses the organisation's competencies and processes vital for value creation and delivery, aligning with perspectives offered by (Osterwalder and Pigneur, 2005) and others (Geissdoerfer et al., 2017; Bocken et al., 2014). Externally, the emphasis is on an organisation's interactions within its network, which are crucial for value creation. (Geissdoerfer et al., 2018; 2016).

Foss and Saebi (2017) broaden this perspective by stressing that business models should go beyond static activities and consider the evolving relationships within an ecosystem. This viewpoint is vital for ICT resellers, given that they may

adopt either evolutionary or adaptive BMI in response to market shifts and technological disruptions (Teece, 2010). Despite the wide range of frameworks, many remain static, failing to encapsulate the dynamic nature of BMI. Crucial elements such as value proposition, production, and capture are often overlooked, which limits our understanding of BMI's impact on company performance (Chatterjee, 2013; Morris et al., 2013; Dmitriev et al., 2014; Girotra and Netessine, 2014; Zott and Amit, 2010; Mason and Spring, 2011).

A synthesized framework for BMI should integrate these dimensions to facilitate a deeper understanding of how companies innovate within their business models. Innovation is not merely the discovery of new products or services but the pursuit of new ideas, processes, and markets that collectively enhance performance (Wang and Chebo, 2021). However, the relationship between BMI and performance improvement remains to be empirically proven, especially when determining the extent and areas of innovation necessary to achieve desired objectives (Foss and Saebi, 2017). This is especially true when figuring out how much innovation is needed and how many areas need improvement to meet the goals.

The challenge is to innovate business models in a way that ensures internal and external cohesion, preserving the integrity of the model while pursuing enhancements (Foss and Saebi, 2017; Baden-Fuller and Haefliger, 2013; Osterwalder and Pigneur, 2010). As a result, the business owner is always concerned about innovating a working business model because even minor modifications will disrupt the model's balance without necessarily contributing to performance (Demil and Lecocq, 2010). However, if the changes are too minor, they will not be considered a BMI (Markides, 2006; Foss and Saebi, 2018).

A business model architecture is more than a list of the firm's mechanisms for creating, delivering, and capturing value, as well as the activities that support

these mechanisms (Santos et al., 2009). It delineates the fundamental organisation of a system, including the components, their interrelationships, and their interactions with the environment, as well as the principles guiding their design and evolution (Foss and Saebi, 2017). The extent of "complementarity" among these relationships can be considerable, as some activities are intrinsically linked to the aspects of the business model they support (Ennen and Richter, 2010). Innovations in BMI are posited to yield greater returns than product or process innovations, and sustainable business models may offer additional benefits, including enhanced risk mitigation, resilience, and opportunities for diversification and value co-creation (Chesbrough, 2007; Geissdoerfer et al., 2018; Porter and Kramer, 2011).

Thus, BMI is defined here as the conceptualization and implementation of a new business model. This includes strategies such as developing entirely new business models, diversifying existing operations, acquiring new business frameworks through mergers or acquisitions, or transforming current business models to better align with market demands and technological advancements. These strategies can be comprehensive, focusing on the overall business architecture, or targeted, emphasising specific elements like the value proposition, value creation and delivery, and value capture within the value network.

#### **2.5.1.4 Gaps in Theory-Based Approaches**

These theoretical perspectives have deepened our understanding of how companies can innovate their business models. Even so, several gaps remain, especially regarding sustainability and the unique needs of SMEs. First, there is a limited focus on environmental and social factors in core theories such as RBV and TCE, which often target economic or cost-focused goals (Foss and Saebi, 2018). While the Dynamic Capabilities view (Teece, 2018) suggests ongoing adaptation, it does not fully explain how to blend sustainability priorities into repeated resource

reconfigurations. This issue is particularly pressing for ICT reseller SMEs, which must juggle strict resource limits, fast-changing technology, and social and environmental expectations in their business models (Lohana et al., 2021; Hu, 2017).

There is also an overemphasis on large firms in much of the BMI literature (Matarazzo et al., 2021; Ahmad et al., 2020; Müller, 2019). Many case studies feature large-scale corporations, which may not reflect the smaller reach or partnership-heavy strategies of ICT resellers. Similarly, TCE and earlier versions of the Activity System Perspectives tend to offer a static view of the business model. They focus on how a model is first designed but do not show how it shifts over time in changing markets (Amit and Zott, 2020). For ICT resellers, the ability to adjust quickly to new technology or competitive threats is vital, making a static approach less useful.

A third gap involves the depth of value capture strategies. Ramdani et al. (2019) explain how some innovative business models handle value capture, yet TCE and RBV primarily address resource use and cost gains. This leaves questions about how SME resellers in fast-moving markets can set up creative revenue models. Furthermore, although many scholars link BMI to long-term sustainability the measurable results for SMEs are still unclear (Bachtiar et al., 2023; Freudenreich et al., 2020; Foss and Saebi, 2018; Teece and Linden, 2017; Geissdoerfer et al., 2018). Some research (Futterer et al., 2018; Spieth & Schneider, 2016) stresses the need for continual innovation. Even so, it does not clarify how much or how fast a firm should change if it is trying to balance old methods with new growth goals.

All these points highlight the need for a more unified framework. Such a framework should merge dynamic theories with sustainability, while also fitting the



size, limits, and market realities of ICT reseller SMEs. Current theories show why BMI matters, yet they provide limited guidance for firms under pressure to stay profitable, green, and flexible all at once. By addressing these missing pieces, this study aims to propose a stronger BMI framework that enables steady evolution, makes sustainability a guiding principle, and acknowledges the distinct challenges of smaller ICT resellers.

### **2.5.2 Business Model Innovation (BMI) for Sustainability**

Within sustainable business models, a subcategory known as sustainable business model innovation, alternatively referred to as business model innovation for sustainability in academic literature, has emerged more recently. This approach integrates traditional BMI principles with sustainability consideration (Ferlito and Faraci, 2022; Yang et al., 2017b; Lüdeke-Freund, 2020; Geissdoerfer et al., 2016; Schaltegger et al., 2016a; Roome and Louche, 2016). Scholars concur that sustainable BMI adapts conventional business models by explicitly embedding sustainability into the core business strategy, focusing on value proposition, creation, delivery, and capture, all through a lens of long-term environmental, social, and economic consideration (Geissdoerfer et al., 2016; Schaltegger et al., 2016a)

Sustainable BMI is categorised by its dual objectives: firstly, it aims for sustainable development by generating positive impacts and minimizing negative effects on both society and the environment. Secondly, it seeks to embrace every facet of the business model—from value proposition, value creation, and value capture elements, as well as its broader value-network—with sustainability attributes (Bocken et al., 2014; Bocken and Geradts, 2019; Geissdoerfer et al., 2018). The essence of BMI for sustainability lies in altering the business model in service of sustainability goals, which includes, but is not limited to, reducing

environmental impacts and promoting social welfare, all while maintaining economic viability (Bocken et al., 2015; Geissdoerfer et al., 2018).

Geissdoerfer et al. (2018) delineate four primary objectives of Sustainable BMI: embedding sustainable value creation, engaging in multi-stakeholder management, fostering long-term vision, and innovating within existing business models to transform, diversify, or establish new sustainable models, such as circular business models and social enterprises.

Business model innovation (BMI) is a strategy that companies can use to stay competitive in a fast-changing economic landscape by improving their ability to create value (Foss and Saebi, 2017). BMI for sustainability focuses on modifying existing business models to become more sustainable. Traditional business models and BMI can have negative environmental impacts, such as the overuse of natural resources. This poses challenges to their long-term sustainability and public interest. To address this issue, sustainable business model innovation has been proposed, which incorporates sustainable development goals and a responsible innovation approach into BMI (Geissdoerfer et al., 2018). A sustainable business model innovation benefits multiple stakeholders, including customers, shareholders, suppliers, and partners, as well as the environment and society. This means that a sustainable BMI generates both monetary and non-monetary value and is a way to benefit society and the environment.

According to one McKinsey study, the number of modifications increases the BMI's value, but it is also highly dependent on the company's ability to determine the proper amount of change. The sweet spot is still being researched by most researchers as an open subject (Desyllas and Alexy, 2020; Foss and Saebi, 2017; Massa et al., 2017). So, if the investigations are only done on ICT resellers at first, it will be easier to make a specific framework.

Moving from product-centric to service-centric models is one of the most significant types of company model innovation today (Foss and Saebi, 2017; Visnjic et al., 2018). That explains why, in order to improve their financial performance in a commoditized industry, more hardware and software suppliers are building distinction in this area (Cusumano et al., 2014). For example, Dell, Lenovo, and HP began as PC, laptop, and server hardware manufacturers, then added services like preventative maintenance, imaging, and deployment to their portfolio, and finally structured into managed services and a pay-per-use model (Bednarz, 2021).

Service-based models are increasingly favored because they deliver greater value to clients, and thus, enhance an organisation's profitability (Raddats et al., 2019). As a result, the success of a service-based model approach is also dependent on the business model's value delivery (Forkmann et al., 2016). Christensen et al. (2016) argue that successful innovation requires a deep understanding of the customer's tasks. This insight enables firms to make informed decisions about how to innovate effectively to fulfill those tasks, thus driving the purchase decision (Adam, 2016).

Through a detailed understanding, they are able to make more accurate predictions about present vendors and competitors, determining whether they should be disregarded or countered. If a product's or service's innovation does not assist customers in completing their tasks, it lacks a causal mechanism that motivates them to buy (Adam, 2016). The service-based paradigm is examined further as an optimal stance for ICT resellers as part of the sustainable business model.

The preceding discourse elucidates a paradigm shift within the domain of BMI, where the integration of environmental, social, and economic considerations

is no longer peripheral but central to contemporary business strategy. The researcher believes that the crafted BMI framework weaves in the crucial threads of sustainability—natural capital, social and responsibility capital, and stakeholder management—and reflects an emergent business ethos and a strategic imperative. The framework must emerge from acknowledging the inseparable and symbiotic relationship between businesses and their broader ecosystems. Businesses must be able to adeptly and promptly recalibrate their business models in response to opportunities or impending threats (DaSilva and Trkman, 2014). Again, the researcher believes this ability underscores the importance of agility, resilience, and growth—key factors that propel the dynamic lifecycle of sustainable business practices within the evolving landscape of global commerce.

#### **2.5.2.1 Agility in Business Model Innovation**

An unprecedented rate of change marks the contemporary business landscape. The concept of agility in business, as discussed in strategy, management, and information systems literature over the past twenty years, is seen as the union of an organisation's ability to both perceive changes in the environment and react accordingly. Organisations combat multifaceted challenges stemming from social change, technological change, economics, ecology and politics (Wheelwright, 2019). Within this turbulent environment, the concept of agility has emerged as a cornerstone of sustainable competitive advantage. Organisational agility is closely associated with flexibility, reflecting a firm's capacity to navigate uncertainty in demand (Teece et al., 2016). Different scholars have nuanced views on agility: Doz and Kosonen (2008) view strategic agility as the ability to adjust strategic direction to generate value continually. Weber and Tarba (2014) defined it as the flexibility to adapt to new challenges, the capacity for ongoing strategic alignment, and innovation in value creation, making it stand out as a critical factor in a firm's

success. Agility, therefore, is not just about reacting to demand fluctuations but also involves managing supply-side uncertainties and adjusting strategies as needed to maintain competitiveness and capture value.

Teece et al. (2016) argue for unwavering commitment to agility, suggesting that businesses should constantly strive to maintain flexibility, keep their options open, ensure redundancy, and be in a perpetual state of significant change. This raises the question of when and how agility truly adds value. It's unclear if agility is always beneficial or if its value depends on specific conditions. Additionally, there's debate over whether agility is fueled equally by both the ability to sense and respond or if certain types of capabilities, whether ordinary, dynamic, general-purpose, or market-specific, play a more significant role. Dynamic sense and response capabilities, which allow firms to repurpose or reposition resources as circumstances change, may act more to preserve value, providing a shield against performance downturns rather than creating new value.

Traditional strategic frameworks, including sustained competitive advantage and strategic planning, are criticized for being too abstract and outdated to effectively navigate today's rapidly changing environmental and market dynamics (Martin, 2014). Strategic planning is often faulted for relying on past methodologies to devise future strategies, which, despite being useful in certain contexts, tends to result in a rigidity that hampers rapid response to evolving situations and unforeseen market changes (Weber and Tarba, 2014). Martin (2014) suggests companies must embrace agility and step beyond their comfort zones, steering clear of common strategic pitfalls. To navigate away from these traps, he emphasises the importance of centring on customer needs, recognizing the inherent risks in strategic decision-making, and clarifying the rationale behind these choices. In his book, Martin elaborates on how the essence of a company's success is deeply

intertwined with its customers, illustrating that strategy and execution are fundamentally interconnected (Martin, 2022).

For ICT reseller SMEs in Malaysia, agility in BMI signifies the capability to rapidly adapt to market changes and customer demands. Sambamurthy et al. (2003) articulate agility as a firm's proficiency in customer interaction, orchestration of internal operations, and leveraging external business partnerships. Zain et al., (2005) further this notion by suggesting that agility encompasses customer enrichment and stakeholder cooperation to augment competitiveness. Agility's essentiality in the ICT sector lies in its potential to foster customer-centric innovation, competitive advantage, and responsiveness to market volatilities, which are crucial in an industry characterized by rapid technological evolutions and shifting consumer demands.

ICT resellers can cultivate agility by integrating technological, behavioural, organisational/structural and environmental enablers into their business model (Tallon et al., 2019). From a technological perspective, they can leverage modular IT resources, ensuring compatibility and connectivity with emerging technologies, thus facilitating scalability and innovation (Ross et al., 2006). Behaviorally, creating a culture that embraces risk and values of promoting continuous learning can bolster the capacity to sense and respond to market opportunities (Breu et al., 2002). Structurally, adopting flexible IT governance models can facilitate swift decision-making and operational adjustments to market dynamics (Teoh and Chen, 2013). On the environmental front, recognizing the role of external market conditions and maintaining alignment between resource flexibility and business strategy can enhance agility (Tallon and Pinsonneault, 2011).

As we explore agility in BMI, it is imperative to consider the pivotal role it plays in an organisation's survival (Miceli et al., 2021). The downfall of industry

giants like Kodak, Nokia and Blackberry underscores a clear message: complacency is a silent killer in the age of agility. For ICT resellers, agility is not an optional strategic flourish but a fundamental ingredient for sustainability. The integration of agility in BMI requires a discerning understanding of its customers and the strategic employment of resources or capabilities in order to provide favourable impact on organisational agility. (Tallon et al., 2019). This research underscores the importance of agility as a strategic element, propelling organisations towards more adaptive and flexible business models.

In summary, agility within the BMI emerges as a vital driver for the sustainable success of ICT reseller SMEs in Malaysia. This research will delve into the agility practices of these ICT SMEs, seeking to understand how their rapid adaptive strategies in a volatile market contribute to their longevity and competitiveness. The findings aim to crystallize the essence of agility as a cornerstone for resilience and growth in the evolving landscape of the ICT sector.

#### **2.5.2.2 Resilience as a Pillar of Business Model Innovation**

Resilience is recognized for its critical role in navigating organisational complexity and is a key management and academic focus area. As organisations face unpredictability in socio-economic, financial, and technological realms, resilience becomes essential for addressing these challenges and adapting to change (Elmqvist et al., 2019). The literature indicates that resilience encompasses both the ability to recover from disruptions ("bounce back") and the capacity for evolutionary adaptation, where firms learn and evolve through change (Zavala-Alcívar et al., 2020). In the quest for sustainability, firms must understand and leverage their self-organisation and learning capacities to respond to and benefit from change, aligning with the more holistic perspectives of resilience, including

recovery, transformation, and renewal for long-term growth (Carpenter et al., 2001).

Xu and Kajikawa (2018) provided an analogy to illustrate the differences in businesses' recovery times from challenging events across various entities and scales, highlighting resilience as a crucial element for sustainability. Their systematic literature review based on 19,459 papers identified four resilience characteristics: flexibility, redundancy, diversity, and connectedness. Additionally, they recognized that resourcefulness, preparedness, and social capital play supportive roles in enhancing these resilience attributes.

In the context of ICT resellers, resilience is crucial for navigating the rapidly evolving technological landscape. Flexibility for ICT resellers means ensuring that resources are readily available and accessible, enabling them to swiftly adapt to market changes and recover from tough situations (Walsh, 1996). This flexibility is essential for maintaining competitiveness and customer satisfaction in a sector characterized by fast-paced innovation. Redundancy is also vital for ICT resellers. It involves having backup systems or processes that can sustain the organisation's operations during unforeseen disruptions. This could mean maintaining extra inventory or having alternative service providers or distributors, ensuring the reseller can continue serving customers without interruption. Diversity within ICT resellers enhances their resilience by providing multiple avenues to respond to changes and challenges. Instead of relying on a single strategy or product line, diverse solutions enable innovative adaptation to market demands and challenges, fostering a more resilient business model. Connectedness in the ICT resellers industry is essential for building resilience. It fosters a supportive network where the sharing of resources, knowledge, and support is helpful to the business (Brandon-Jones et al., 2014). This interconnectedness from the internal or external



stakeholders not only aids in collective recovery from industry-wide setbacks but also promotes collaborative growth and learning, enhancing the overall robustness. The researcher is of the opinion that effective resilience management for ICT resellers requires integrating flexibility, redundancy, diversity and connectedness into their strategic planning. Cultivating a well-structured social and relationship capital- encompassing social networks, leadership, shared norms, values, trust, and social memory, enables ICT resellers to leverage knowledge sharing, explore diverse solutions and strengthen resilience. This approach prepares resellers to face operational challenges and positions them to thrive in the dynamic ICT marketplace.

Miceli et al. (2021) researched that the new perspective on resilience expands the concept beyond only recovering from adverse events but to also has a strategic dimension to enable the company to seize opportunities for innovation during challenging times. Their idea is that strategic resilience is not only bouncing back but also proactively addressing change to find new, sustainable ways of operating via environmental, economic, and social aspects.

The relationship between resilience and sustainability is crucial, with both sharing several attributes essential for systems' viability (Marchese et al., 2018). Recognizing resilience as a vital element of sustainability suggests that a system's resilience enhancement is akin to its sustainability improvement (Fiksel, 2006). Combining sustainability with resilience provides a comprehensive framework essential for strategic, sustainable decision-making across industrial, societal, and environmental dimensions. In eco-economic systems, resilience is a pivotal element in strategizing for sustainable management (Winnard et al., 2014). This synergy has led to the concept of 'resilient sustainability', prompting leaders to harness an

organisation's adaptive capacity to address sustainability challenges effectively (Winnard et al., 2018).

The researcher is of the opinion that incorporating resilience into the BMI framework is crucial for the enduring success of ICT reseller SMEs in Malaysia. Resilience, in this context, is the ability to withstand and adapt to market fluctuations, disruptions and external pressure. It involves a robust reaction to immediate threats and the strategic vision to foresee and influence forthcoming challenges and opportunities. By embedding resilience into the BMI, ICT resellers can create more adaptable, robust business models that can pivot and evolve in response to changing industry landscapes, customer needs, and technological advancements, ensuring their sustained relevance and competitiveness. Hence, this strategic resilience goes beyond survival; it encompasses a proactive approach to leverage change, driving organisational transformation and growth.

#### **2.5.2.3 Growth Strategies in Business Model Innovation**

Even with limited resources, skills, and capabilities, SMEs are agile, as claimed by (Arbussa et al., 2017). They work within networks to improve their resources and meet changing demands (Schubert et al., 2020). While they often use flexible and informal strategies (Lindgren, 2012), research identifies three main strategic goals across their life cycle: starting up, growing, and making more profit. Wolff and Pett (2006) noted that making a profit and growing usually go hand in hand, but some managers of SMEs prefer focusing on one over the other. These goals match different stages in an SME's life. After starting the business, the next focus is usually on growth. Though profit-making is key at all stages, it becomes more challenging during the growth and decline stages. In the decline stage, businesses might even cut costs to keep making a profit (Couto et al., 2023).

Revenue growth is often seen as a sign of business success (Bradley et al., 2022). The theories about economies of scale suggest a strong link between a company's market position and growth, allowing for more investments (Heikkilä et al., 2018). SMEs usually focus on specific niches within local markets and have limited reach to make their products or services stand out in the market. Therefore, deciding to enter new markets is a big step for SMEs, especially since their first concern is funding (Tong and Gong, 2020; Hu, 2017). For example, research by Lu and Beamish (2006) found that going into foreign markets can help SMEs grow but might reduce their profits. Schubert et al. (2020) discovered that entrepreneurs aiming for high growth choose strategies that emphasise expanding into new markets and adopting new technologies. These entrepreneurs also organize their businesses more systematically and start planning for growth earlier.

Some of the companies that experience initial growth will not actively pursue additional growth after being contented with the level of income that is able to support the owner or managers (Bradley et al., 2022). Theoretical backing, such as the resource-based perspective highlighted by Davidsson et al. (2010), suggests companies should focus on growth opportunities that align with their strengths, cautioning that venturing beyond these areas might not add value and could be counterproductive (Bradley et al., 2022). SMEs aiming for profit often prioritize cost competition and operational efficiency over strategic foresight, focusing mainly on cost-cutting and efficiency. They work on enhancing relationships within their supply chains to boost business efficiency and profitability. Adhering to a short-term survival strategy can cause them to veer off their strategic path (Wheelwright, 2019). Yet, some SME leaders find it beneficial to forgo short-term profits in favour of growth by, for example, achieving a critical market presence

that forces customer reliance on their unique offerings, or engaging in price wars in established markets.

Growth within BMI is about expanding the business's capabilities and market presence. It involves exploring new markets, developing new products or services, and increasing the customer base. Growth strategies often focus on long-term objectives, including scaling operations, enhancing the value proposition, and securing a larger market share. In the BMI framework, growth is the directional force that propels the business forward, aiming for increased revenue, market share, and influence.

Growth strategies are indispensable in BMI, serving as a pivotal element that propels companies towards sustainable development and competitive differentiation. The following reviews delve further into the significance of growth strategies within the framework of BMI, drawing insights from recent academic research and industry practices. Schneckenberg et al. (2017) underscore the intricate relationship between decision-making processes and the innovation of business models. Their study reveals coping mechanisms employed by decision-makers to navigate uncertainties in new business model configurations, highlighting strategies like customer centricity and value co-creation. These strategies are instrumental in adapting and evolving business models to foster growth and innovation.

Aaltola (2018) emphasises the synergistic relationship between business models, innovation, and strategy. The research posits that successful BMI is contingent upon strategic management activities, which are critical for achieving profitable and sustainable growth in a globalised competitive environment. Similarly, Taneja et al. (2016) provide a model that outlines the elements necessary for strategic innovation supporting the long-term viability of small businesses.

Their findings advocate for the integration of strategic innovation with strategic planning, underscoring the importance of overcoming innovation barriers to ensure sustainable business growth.

Weking et al. (2018) explore BMI strategies within the manufacturing industry, identifying patterns and strategies for transitioning from traditional product-oriented models to service-oriented offerings. This shift is particularly relevant to IT vendors who are encroaching on resellers' territories by offering bundled services; a trend mirrored in the ICT reseller SME landscape in Malaysia. Here, an increasing number of SMEs are pivoting towards service-based offerings as their main value proposition. This strategic alignment is not just about diversification but a necessary evolution in response to changing market demands and competitive pressures. For ICT reseller SMEs in Malaysia, embracing such BMI is not merely a strategy for growth and differentiation but an imperative for survival in an industry characterized by rapid technological advancement and shifting customer expectations. Thus, adapting and innovating business models in line with these strategic management principles can provide these SMEs with a resilient and dynamic pathway to thrive in the digital economy.

Scuotto et al., (2023) investigate the role of social bricolage in BMI among social entrepreneurship organisations. Their framework highlights the significance of innovative activities in addressing social needs and achieving long-term sustainability, further demonstrating how growth strategies through BMI can lead to social innovation.

The synthesis of agility and resilience within BMI paves the way for formulating growth strategies that are adaptive, innovative, and sustainable. Growth strategies in this context are informed by an organisation's capability to integrate resources and agile processes, thereby fostering strategic resilience (Fredotovic et

al., 2023). This approach entails a shift towards opportunity-driven growth, where businesses are prepared to tackle challenges and adept at identifying and capitalizing on new avenues for expansion during times of change.

In conclusion, growth strategies are integral to business model innovation, offering a pathway to sustainable development, competitive advantage, and organisational longevity. Through strategic decision-making, customer engagement, value creation, and social innovation, businesses can effectively navigate the complexities of today's market landscape, ensuring growth and success in the long term. Therefore, the researcher is of the opinion that growth strategies, together with agility and resilience, contribute to a robust BMI framework, enabling ICT reseller SMEs in Malaysia to navigate the complexities of the digital era and achieve long-term sustainability.

## **2.6 Underpinning Theories**

This research is anchored on several key theories that collectively provide a robust theoretical foundation for examining and enhancing the business sustainability of ICT reseller SMEs in Malaysia. The primary theories underpinning this study include Stakeholder Theory, Resource-based View (RBV), and Dynamic Capabilities. The RBV is a critical theoretical framework that emphasises a firm's internal capabilities in achieving competitive advantage. RBV posits that firms with valuable, rare, inimitable, and non-substitutable are more likely to sustain competitive advantage over time (Barney, 1991). However, the evolving business environment necessitates integrating RBV with stakeholder theory and dynamic capabilities to address the complexities and demands of modern strategic management, especially in ICT reseller SMEs, for sustained competitive advantage.

### **2.6.1 Resource-based View (RBV)**

In the context of this research, RBV theory supports the strategic resources of SME businesses, including tangible and intangible assets that the company can cultivate and use to its advantage. These resources support the company's employees, property, plant and equipment in order to generate streams of products and services that the business offers and requires to grow. The RBV is the dependent element for a firm to succeed. Hence, it explains the importance of uniquely bundling the resources and capabilities in delivering strategic competitive advantage (Raddats et al., 2016; Story et al., 2016; Zott et al., 2011)

Dickson (1996) previously claimed that the RBV adopts an "inside-out" or firm-specific perspective on why businesses succeed or fail in the marketplace. Barney (1991) also outlined how organisations can create and sustain competitive advantages and use these resources and advantages to perform better by having access to valuable, rare, unique, and non-substitutable resources. Barney (1991) introduced the concept of RBV, which concurs that an organisation can be considered as a collection of organisational, human, and physical resources. The company's "valuable, scarce, imperfectly imitable, and imperfectly substitutable resources" are the primary strategic sources of sustainable competitive advantage for long-term superior performance (Barney, 1991). According to Enz (2008), an abundance of resources is needed to be considered a source of competitive advantage, and this can be achieved through the orchestration of resources.

RBV is not limited to cost reduction or efficient resource utilisation but, according to Madhani (2009), must meet the "VRIN" requirements to offer a competitive edge and long-term performance. The VRIN/VRIO framework is part of RBV theory and is extended to develop strategic management to examine a

company's internal strengths and weaknesses (Barney, 1991). The RBV analyses how resources, strategy, execution and competitive advantage relate to one another among the business-level processes (Ployhart, 2021). The letter "V" stands for "valuable," and Madhani (2009) noted that resources are valuable if they help the company achieve its strategic goals. Resources are valuable if they enable businesses to take advantage of market opportunities or mitigate market risks. Having a resource does not benefit the company if it does not increase or add to its value. The letter "R" stands for "rare." According to Madhani (2009), resources must be hard to come by among the firm's current and potential competitors. Resources must be scarce or special to provide a competitive edge. Resources that are held by multiple businesses competing in the same market cannot give them a competitive edge since they cannot be used to develop and implement a distinctive business strategy. Barney (1991) posited that the “valuable” and “rare” would only provide the competitive edge and improved performance in the short term.

"I" stands for "imperfect imitability." According to Madhani (2009), it will not be possible to reproduce or replicate the resources due to imperfect imitability. There are a variety of bottlenecks to imperfect imitability, such as challenges in getting resources, a murky connection between competence and competitive advantage, or resource complexity. Resources can only be the foundation of a long-lasting competitive advantage if enterprises without access to them are unable to obtain them. The letter "N" stands for "non-substitutability." According to Madhani (2009), the non-substitutability of resources means that an alternative resource cannot replace them. In this case, the competitor cannot achieve the same performance by substituting other resources. In order for the company to survive in the long term, the resources have to be “imperfect imitability” and “non-substitutable” (Barney, 1991). The VRIN model evolved to VRIO framework when



the last element, “Non-substitutable”, is changed to “Organisation”, which is the readiness and ability of the firm to exploit the resource and capabilities. Barney (1991) argued that meeting the four pillars drive the company competitive advantage.

Barney (1986) asserts that a useful resource must "allow a firm to do things and behave in ways that lead to high sales, low expenses, high margins, or in other ways contribute financial value to the firm." Barney (1991) underlined that resources are beneficial when they allow a firm to develop or implement plans that increase its effectiveness and efficiency. RBV aids managers in comprehending why competencies can be seen as a firm's most valuable asset and, concurrently, in appreciating how such assets can be leveraged to enhance business performance. RBV of the company acknowledges that factors including organisational culture, past experiences, managerial abilities and competencies are crucial to the company's success (Lee and Yun, 2020; Assensoh-Kodua, 2019; Kabue and Kilika, 2016).

By considering the perspective from RBV, the six capitals which are financial capital, manufacturing capital, intellectual capital, human capital, social capital, and natural capital, are among the resources that should be valuable (V), rare (R), imperfect imitability (I), and non-substitutable (N). A resource or capacity that satisfies all four (VRIO) needs can give a company a sustainable competitive advantage, according to Barney (1995). This is done to make sure that the money can provide strategic value to the company, aid companies in seizing market opportunities, or mitigate market risks. The RBV main tenet is that businesses compete based on resources and capabilities (Peteraf, 1993). However, businesses are not always in possession of or in charge of the resources they require to create a long-term competitive advantage. Furthermore, these resources might not be

directly owned by the company that needs them, and one of the options is to outsource (Kabue and Kilika, 2016).

Businesses must also make sure that their current and future competitors will have a tough time locating the capital necessary to match their competitive advantages because they won't be able to perform as well by substituting different resources. Consequently, they may be sure that their company will survive.

#### **2.6.1.1 Six Capitals (6C) as Core Resources for Business Sustainability**

The International Integrated Reporting Council (IIRC) provides an in-depth exploration of the concept of multiple capitals in integrated reporting and provides a holistic view of an organisation's ability to create value over time IIRC (2021). In the evolving landscape of business reporting and value creation, the traditional metrics, primarily rooted in financial capital, have been deemed insufficient in capturing the holistic value generated by organisations. This has led to the emergence of integrated reporting, emphasising a broader spectrum of capital that collectively contributes to an organisation's value-creation process (Marçal et al., 2022). According to the International Integrated Reporting Council (IIRC) (2013), all organisations rely on strategic capital resources for their future value creation narrative: financial, manufactured, intellectual, human, social, and relationship capital and natural capital. The 6C perspectives is like a report card for businesses. It shows people what a business is doing well and where it might be struggling. Big companies usually use the 6C when they share yearly updates. These "Cs" are like building blocks for a company. So, when a company earns more money, the financial block gets bigger. And when workers learn new things, the people block gets bigger too.

The IIRC's perspective on the six capitals underscores their interconnectedness and interdependence (Roslender and Nielsen, 2021).

Collectively, they contribute to the value creation process, which influences an organisation's impacts and dependencies. Historically, business reporting and value creation focused predominantly on financial capital, with the earliest literature emphasising profit maximization as the primary organisational goal. However, as Marçal et al. (2022) noted, the discussion has evolved over the years by increasing recognition of the limitations of a purely financial perspective. For sustainable business model innovations, especially in sectors like the ICT industry, it becomes imperative to consider these capitals and their complicated interactions. This comprehensive understanding ensures that BMI addresses financial performance and social, environmental and ethical considerations.

De Villiers and Sharma (2020) critically reflect on the future of financial and intellectual capital in the context of sustainability and integrated reporting. The increasing importance of intellectual capital, encompassing knowledge, experience and organisational process, cannot be understated. Integrating these capitals is pivotal for businesses to navigate the complexities of the modern business environment and achieve sustainable outcomes.

Dameri and Ferrando (2022) revisit the IIRC framework in the light of stakeholder theory. They emphasise the importance of stakeholder engagement in the value-creation process and argue that businesses need to consider the interests and concerns of various stakeholders, from employees and customers to investors and the broader community. This stakeholder-centric approach to value creation aligns with the six capitals framework, ensuring that businesses address the financial performance together with social, environmental and ethical considerations.

Barnabè et al. (2019) offer a dynamic resource-based perspective on integrating reporting practices. They argue that businesses need to visualize and

manage value creation through a lens considering the dynamic interplay of various resources and capitals. This perspective underscores the importance of adaptability and agility in the modern business environment, where rapid technological advancements and changing stakeholder expectations necessitate a more integrated approach to value creation.

IIRC (2013) also outlined the fact that the total stock of capital is not constant throughout time. The capitals always increase, decrease, or change as there is a constant flow between and within them. For instance, the associated training costs for a firm that increases its human capital through staff training may lower its financial capital. The result is the transformation of financial capital into human capital. This example shows how the capitals continuously interact and evolve, albeit at differing rates and with varying results, despite being straightforward and solely portrayed from the organisation's perspective.

The 6C provides a holistic and balanced approach to analysing and assessing sustainability across economic, social and environmental. In summary, integrating the 6C perspectives into BMI allows businesses to:

- Develop holistic strategies: By considering all 6C, businesses can craft strategies that address financial performance alongside social, environmental and ethical considerations (IIRC, 2013).
- Identify risks and opportunities: Recognising the interplay between capital helps pinpoint potential risks and opportunities related to resource availability, stakeholder relationships and environmental impacts (Marçal et al., 2022).
- Enhance stakeholder engagement: This framework emphasises the importance of engaging with various stakeholders, ensuring their

interests and concerns are factored into the business model design and innovation (Dameri and Ferrando, 2022).

- Facilitate integrated reporting: Incorporating all six capitals into BMI ensures value creation that is financially viable, environmentally conscious, and socially responsible (Barnabè et al., 2019).

While there's substantial literature on the 6C in the context of integrated reporting and large enterprises, there's a gap when it comes to their application in specific sectors like ICT reselling, especially in a Malaysian context. This research seeks to bridge this gap, exploring how the 6C can be effectively integrated into sustainable business model innovations for ICT resellers in Malaysia. Therefore, the researcher is of the opinion that these 6C should be embraced as integrated resources pivotal for steering growth within the ICT reseller sector. The capacity to manage these dynamic resources skillfully is essential in propelling growth, enhancing adaptability and fortifying resilience. This perspective is rooted in the assertion that the ability to effectively harness and coordinate these diverse capitals in a rapidly evolving business landscape can lead to a more robust and innovative business model (International Integrated Reporting Council (IIRC), 2013). The researcher's stance is informed by the argument that the agility to navigate complex resource interdependencies is a critical driver of sustainable competitive advantage. (Al Taweel and Al-Hawary, 2021; Barney, 1991)

#### **a) Financial Capital**

This literature review delves into the significance of financial capital within the IIRC framework and its relevance to the business sustainability of ICT reseller SMEs in Malaysia. IIRC (2013) views financial capital as the pool of funds available to an organisation to produce goods or provide services that can be

obtained through financing. This includes funds obtained through financing, such as debt, equity, or grants, and funds generated by operations or its investments. Businesses must be able to fund operations, invest in growth, and manage short-term financial obligations. It can be in the form of equity, debt or a hybrid of both. The IIRC framework emphasises the importance of understanding and reporting on how financial capital is made use of and how its interactions with other capitals affect the overall value-creation process.

Financial capital is the lifeblood of any business. The ICT sector has witnessed significant growth, with SMEs playing a crucial role in the expansion (Huawei, 2018). However, the competitive nature of the industry, combined with external challenges such as economic downturns or global pandemics, has highlighted the importance of financial stability. The Malaysian government's push towards digital transformation has created an increased demand for ICT solutions. Financially sustainable SMEs are better positioned to capitalize on these opportunities, having access to financing and offering solutions that cater to a digitally evolving market (Ministry of International Trade and Industry, 2018)(Ministry of International Trade and Industry, 2018).

Weber (2017) also highlighted the importance of financial management in an organisation's development process. He claims that this is done to guarantee that the management of investments makes the right choices. Sound financial management enables effective planning for the use of financial resources in the company, assisting in goal-achieving. AlFalahi and Nobanee (2019) emphasised this as well. Firms can achieve sustainable development and growth through sound financial management and financial procedures that ensure the efficient use of resources. Making the appropriate choices results in sustainable behaviours that influence the expansion and development of the organisation.

The COVID-19 pandemic has underscored the importance of financial resilience for microenterprises in Malaysia. Zaini et al. (2021) highlighted the challenges these small enterprises face, emphasising the critical role of financial and social capital in ensuring sustainability during such crises. The development of financial technology (FinTech) has revolutionized the financial landscape, with Meiling et al. (2021) emphasising its role in enhancing the sustainable performance of firms in the Asia-Pacific region, especially in sectors like healthcare. Islamic microfinancing, combined with human capital and ICT, has positively influenced the performance of women micro-entrepreneurs in Malaysia, as Hamdan and Kassim (2022) noted. Sohail and Yang (2022) explored the interplay between human capital, ICT, and financial inclusion, which plays a role in environmental sustainability, emphasising education's role in reducing emissions.

Financial capital plays a critical role in supporting SME performance, providing the essential resources needed for growth, innovation, and operational stability, regardless of the business's entrepreneurial orientation (Yusoff et al., 2021). Studies have shown that access to financial resources directly influences the ability of SMEs to seize market opportunities and implement strategic initiatives effectively (Robson and Bennett, 2000). For instance, Berry et al. (2006) found that the frequency of utilisation of financial support services, such as government aid programs, can positively impact performance by enhancing liquidity and enabling investment in key areas such as technology and workforce development. However, the effectiveness of such support is not universally positive. Research by Lewis et al. (2007) highlights that financial aid may have a negative impact if SMEs lack the expertise to properly utilize the funds, leading to poor financial management and missed opportunities. Overall, financial capital is a vital driver of SME performance, but its success hinges on the business's capacity to manage and apply

the capital strategically to achieve sustainable growth. The integration of financial capital with other forms of capital for holistic sustainability is an area that warrants more comprehensive research.

#### **b) Manufactured Capital**

According to IIRC (2013), manufactured capital refers to the physical assets that are available to a company for use in the creation of goods or the rendering of services. While there's a consensus on identifying items like inventory (short-term assets) and tangible assets like data centres and equipment, debates arise concerning their accounting treatments, especially concerning valuation, depreciation, and taxation. Good infrastructure promotes growth by removing roadblocks, reducing lag times, and generating chances for entrepreneurship.

The significance of manufactured capital for sustainable organisational development is twofold. Firstly, it fosters efficiency, allowing organisations to be adaptable, innovative and swift in market delivery. Secondly, organisations can minimise resource consumption by leveraging manufactured capital and technology, emphasising human creativity, thus promoting efficiency and sustainable development. In the broad field of economics, the term "manufacturing capital" usually points directly to the manufacturing industry. However, "manufactured capital" covers all industries, even though the difference in terminology may seem minor when reading literature.

For ICT reseller SMEs in Malaysia, manufactured capital can be a significant asset, especially when considering the rapid technological advancement and the need for updated infrastructure. While ICT resellers might not be directly involved in manufacturing, their reliance on the manufacturing capabilities of their suppliers and the quality of the products they resell is crucial. Furthermore,



investments in software that aids in automating client setups can also be considered a form of this capital.

It is true that infrastructure development is a crucial phase in a nation's economic development. Rural and urban populations' productivity, welfare, and economic prosperity are largely influenced by the level of infrastructure development in their regions and the connectivity of their areas to regional, county, and national centres of commerce and government. Infrastructure is a public input that is essential to both the manufacturing process and information delivery. Such resources and services are unquestionably important.

For example, the infrastructure at airports has not kept up with the growing demand for air travel. Many airports are operating at or above capacity, which leads to traffic jams, truncated flights, and extended flight times. Each of these problems has an impact on earnings and productivity. The second example shows how port infrastructure has an impact on every business in a supply chain, including manufacturers, suppliers, logistics providers, freight forwarders, and more. By enhancing port infrastructure, businesses create goods more reliably, on time, and with less damage, all of which boost profits and increase their competitiveness globally.

Additionally, when the power goes out, work frequently comes to a halt. Based on unanticipated downtime, that can cost a business thousands or even millions of dollars. Street flooding, closures, and storm damage rise as a result of deteriorating water infrastructure. These raise the price of production for businesses. Businesses must find workarounds to move supplies while bridges and highways that are hazardous or closed for renovations force them to spend time and money. This has an impact on the workforce as well. Commuting is becoming more expensive and time-consuming as a result of failing infrastructure. Businesses must

also create alternate transportation routes when roads and bridges can't properly support the weight of machines and cars, which costs them money and time.

In a nutshell, infrastructure is necessary for business, and without business, economic progress is impossible. The infrastructure produces the core buildings, services, and systems required for a nation's businesses in order to spur commercial expansion and to sustain their businesses.

### **c) Intellectual Capital (IC)**

Intellectual capital originated in the 1990s, primarily attributed to Thomas Stewart, a journalist for Forbes magazine at the time. Stewart (1991) describes intellectual capital as a company's collective knowledge and brainpower, encompassing patents, processes, management skills, technologies, customer and supplier information, and overall experience that can be utilized to create wealth and confer a competitive advantage. In a later article, Stewart and Losee (1994) highlight the shift from traditional cost-based accounting to measuring intellectual capital as the economy's primary driver.

Intellectual capital represents the intangible resources that are not typically quantified in financial statements but play a decisive role in creating long-term value and sustainability (de Villiers and Sharma, 2020). It is a crucial factor for sustainability and economic development, aligning with the United Nations' Sustainable Development Goals (Jardon and Martínez-Cobas, 2019). Organisations recognize the importance of quantifying and reporting their intellectual capital to improve competitiveness and enhance stakeholder confidence (Caputo et al., 2016). Companies can harness their potential to drive long-term success and contribute to overall well-being by valuing and effectively managing intellectual capital.

In the modern knowledge economy context, intellectual capital plays a crucial role in driving innovation, competitiveness, and sustainable development

(Mohamed et al., 2009). The knowledge possessed by individuals within an organisation, often referred to as "human capital," is recognized as the most valuable resource. Intellectual capital encompasses employees' skills, experiences, and information assets, which contribute to long-term profitability (Joshi et al., 2013). It represents the intangible aspects of an organisation's activities, including human capital, organisational and technological culture (structural capital), and external relationships (relational capital). These elements are essential in the value creation process, driving companies towards competitiveness (Alvino et al., 2021).

Intellectual capital encompasses various dimensions, including relational capital, which derives from an organisation's relationships with external stakeholders such as customers, suppliers, partners, investors, regulators, and communities. The focus is more on the tangible and quantifiable aspects of relationships that directly contribute to a company's intellectual assets. Relational capital reflects the trust, loyalty, reputation, and market image that an organisation has developed (Ramírez-Solis et al., 2022). It plays a crucial role in supporting business model innovation (BMI), which involves creating, delivering, and capturing value through novel approaches.

In today's highly competitive markets, where consumers are well-informed and business environments are dynamic, intellectual capital plays a crucial role in enabling companies to adapt and maintain their competitiveness (De Massis et al., 2014). Intellectual capital has become a source of competitive advantage, driving innovation and contributing to sustainable growth while holding significant value for businesses in terms of creating future rewards and financial success (Obeidat et al., 2017).

Previous studies have recognized that intellectual capital is one of the most important components in establishing business sustainability, particularly for

Malaysian small and medium-sized firms (Ismail et al., 2010). Mukherjee and Sen (2019) explored the impact of intellectual capital and its components on the long-term profitability of Indian non-financial businesses, finding that intellectual capital serves as a catalyst for sustainable growth.

Massaro et al. (2018) and Dal Mas (2018) examined the connections between intellectual capital and business sustainability. These studies employed a perceptual measure based on the viewpoints of practitioners. The findings show that sustainability and intellectual capital are interrelated. Not only that, Wasiluk (2013) concentrated on the ways in which businesses channel their intellectual resources toward more sustainable practices. He also found that each type of intellectual capital is crucial for corporate sustainability and promoting organisational change toward a more ecologically sound, sustainably run, and socially just business.

Intellectual capital is commonly defined as having three components: human capital (the skills and knowledge of individuals), organisational or structural capital (internal processes, procedures, and tacit knowledge), and relational capital (akin to social and relationship capital involving external networks), however, respondents to IIRC's 2011 Discussion paper highlighted the overlapping nature between them has subjected to debates (IIRC, 2013). The Technical Collaboration Group of the IIRC has concluded that merging the capitals into a single model will complicate the understanding and potentially overlook some aspects of human and social capital; hence, a practical approach to differentiate these capitals is to consider the "carrier" of each type:

- Human capital is embodied by the individual employees
- Social and relationship capital are carried by networks within and outside of the organisation
- Intellectual capital is held by the organisation itself.

As for this research, the categorisation of the 6C is aligned with the Integrated Reporting <IR> framework by the IIRC (2021), which was designed to give a holistic view of the organisation's strategy governance, performance and prospects sustaining over time. The clarity and distinction among capitals clearly identify and measure their unique contribution to organisational value. The below section will delve more into the organisational capital as the subset of the intellectual capital.

### **i. Organisational Capital**

The term "organisational capital," as defined by the International Integrated Reporting Council (IIRC, 2021), encompasses tacit knowledge, systems, procedures, protocols, and intellectual property, including software, copyrights, patents, trade secrets, and licenses.

Organisational capital, a key component of intellectual capital, provides crucial support to organisations. Pursuing innovation as a competitive strategy has underscored the importance of knowledge as a catalyst. As a key driver of innovation, knowledge flows within the organisation from individuals to the organisational structure and customer relationships. Extensive research on intellectual capital, encompassing human, structural, and customer dimensions, has demonstrated its significant impact on organisational performance (Hanifah et al., 2020). However, the specific structure of structural capital, which includes processes, data, systems, designs, and knowledge, has received limited attention (Nghah et al., 2022).

It is crucial to mobilize dimensions such as organisational capital, technological capital, and innovation capital to effectively utilise and apply

knowledge at the organisational level. Yet, the specific interrelationships among these dimensions remain largely unknown. As a relatively new concept for SMEs, innovation intelligence highlights the ongoing exploration of innovation and its impact on their performance (Hanifah et al., 2020).

## **ii. Organisational Capital for SMEs**

SMEs, particularly in the context of innovation intelligence, are still exploring the potential of innovation and its impact on their performance. Malaysian SMEs, in particular, have struggled to achieve impressive innovation performance, often due to insufficient or incompetent human resources and a lack of readiness for change among employees (Ghazilla et al., 2015).

However, studies have shown that knowledge strongly influences the innovation performance of high-tech SMEs in Portugal, highlighting the importance of investing in R&D for better innovation performance (Alegre et al., 2013; Ren et al., 2015). Leveraging intellectual capital, especially in R&D, enables SMEs to unlock their innovation potential and enhance their innovation performance (Han and Li, 2015). Innovation capital, which includes intellectual property and intangible assets, plays a crucial role in turning innovative ideas into reality. Human capital, social capital, and reputation innovation are the primary sources of innovation capital, contributing to the generation of knowledge (Kijek, 2012).

SMEs' ability to develop and implement innovative processes is instrumental in creating innovative products (Al-kalouti et al., 2020). Recognizing the significance of innovation capital, Malaysian SMEs have allocated resources for research and development, particularly in the context of the Industrial Revolution 4.0 (Ngah and Wong, 2020).

Organisational capital, which encompasses systems, structures, corporate culture, and production technology, plays a vital role in supporting employees in achieving superior performance (Nghah et al., 2022). Top management support and direction are closely linked to organisational capital, serving as a repository of knowledge embedded at the organisational level and impacting organisational performance through innovation (Barbieri et al., 2021).

Technological capital, derived from investments in R&D, organisational capital, and brands, enables SMEs to engage in innovation and contribute to innovation performance. Technological innovation plays a crucial role in supporting organisational innovation activities. However, for technological capital to be efficient, strong top management support is necessary, and its integration with knowledge and intelligence is crucial for corporate strategies (Zakery and Saremi, 2021).

Assessing the real impact of organisational capital on firm performance is complex. Nevertheless, research suggests a positive relationship mediated by innovation and clarity of change (Barbieri et al., 2021). Organisations that embrace new ideas and continually improve their products, services, and processes are more likely to enhance their overall performance.

Overall, intellectual capital is a valuable intangible resource that plays a vital role in value creation, corporate competitiveness, and the pursuit of sustainable practices that contribute to a business's sustainable growth and success.

#### **d) Human Capital**

IIRC (2013) elaborates on human capital as people's competencies, capabilities, and experience, as well as their motivations to innovate. This includes their adherence to and support for the governance framework, risk management strategy, and ethical ideals of a firm. In addition, IIRC (2013) also believed that

human capital included loyalty and a desire for enhancing procedures, products, and services, as well as the capacity to lead, manage, and cooperate. This is on top of being able to understand, plan, and carry out a business strategy.

One of the elements of intellectual property is human capital. Competence in Malaysia, social competence, employee motivation, and leadership capacity are all examples of human capital. Competence in Malaysia refers to experience and expertise that have been acquired in a business or during a person's career. Training, opportunities for higher education, real-world experience gained through employment, classes, and seminars are all factors that help people become more competent. Social competence, for instance, includes interpersonal skills, the capacity to relate effectively to others, the capacity to communicate, and the capacity to engage in productive discussion. It also makes it easier for employees to work well together and learn (Swart, 2006).

In a business, employee motivation frequently plays a significant role. Employees who are motivated are more eager and devoted to taking on duties. An organisation's productivity increases as a result of this willingness to work. Businesses invest in motivating their workforce using a variety of strategies, including fair pay, employee participation in decision-making, bonuses, commissions, opportunities for advancement, and decision-making flexibility. Intellectual capital also includes leadership potential. Leaders with a strong capacity for leadership are individuals who can carry out their administrative duties with ease (Subramaniam and Youndt, 2005). The capacity to create, convey, and put into action plans and visions is also a component of leadership skills.

Human capital, according to Bontis (1998), is the expertise of employees within a company. Swart (2006) asserts that because employees are the ones who own the human capital, it tends to be movable and does not belong to any specific



firm. According to Swart's (2006) research, human capital is crucial since it serves as a strategic source of innovation and creativity for businesses. Human capital is also seen as the foundation of intellectual capital, and it is crucial to the success of operations involving intellectual capital.

According to research undertaken by Joia, (2007), human capital is typically the firm's primary growth engine. Effective management of a company's human capital could facilitate the creation of additional intellectual assets. Some forms of human capital can be industry-specific. This is due to the fact that some personnel have training and experience in sectors like accounting, engineering, and medicine. Employees having an understanding of Malaysia in specific fields may be required to register with specific Malaysian organisations in order to demonstrate their degree of knowledge and expertise.

Employees with Malaysian credentials in a certain field may add more value to the company, as some companies may require Malaysian credentials in certain fields. Organisations have no ownership over their people, or their skills and abilities. Given the danger of excessive staff turnover, it may be difficult to predict the future economic advantages of the personnel. When employees leave, they do not leave behind the gained skills and information, but rather they depart with their competence. The only thing left for the business to use is structural capital, which may have come from human capital (Swart, 2006).

Estimating human capital offers numerous difficulties, which contributes to the lack of a dependable value that can be used to track the performance of a company based on the utilisation of human capital. Therefore, it is difficult to compare the human capital performance of different organisations. There is also the issue of monitoring the future economic contributions that human capital is likely to make. This prevents the recognition of human capital on the financial sheet.

Human capital cannot be included in financial accounts since it is difficult to anticipate future benefits (Lev and Zambon, 2003).

It is crucial for firms to gather information regarding human capital that might aid in allocating human resources in a more effective manner (Youndt et al., 2004). Human capital contributes to the enhancement of an organisation's performance in all three dimensions; hence, human resources are essential to the development of corporate sustainability (economic, environmental, and social). According to a growing set of study findings, human capital is an instrument for value generation. Human capital empowerment activities, such as employee training and development, and the integration of green HR practises in recruitment, selection, performance management, training and development, involvement, and remuneration, can contribute to organisational sustainability. Investing in human capital through training and development programs, as well as environmentally friendly human resource practices, are examples of efforts that can be used to sustain the business through human capital.

#### **e) Social and Relationship Capital (SRC)**

The concept of SRC formulated in sociology and now a key component in management literature, originated from the work of Robert D. Putnam. It encompasses a complex network of relationships both within an organisation and between the organisation and its external stakeholders. This capital is critical in influencing business operations and sustainability, as it involves an array of relationships that span across different spectrums of functioning organisations of the ICT industry (IIRC, 2013).

According to the IIRC (2013), SRC is characterized by several dimensions.

- Internal and external relationships - SRC includes both intra-organisational relationships and connections with external entities, such as stakeholder groups and institutions across various communities. This duality highlights the importance of both internal cooperation and external collaborations.
- Business context related – In the business context especially relevant to integrated reporting, SRC is identified by its impact on supply chain relationships, community acceptance, government relations, competitor interactions, and customer loyalty. These components are essential for maintaining an organisation's social license to operate.
- Trust and engagement – The foundation aspect of SRC is the trust and engagement a company fosters with its stakeholders, which can manifest in various forms, including shared values, beliefs, behaviours, and even tangible assets like real estate.

Various scholars have contributed to understanding social capital, which is the subset of SRC. Coleman (1990) views social capital as embedded within the network of relationships among individuals, facilitating action and the potential for information sharing. The OECD (2001) described social capital as networks with shared norms and values that promote cooperation within or among groups. Fukuyama (2001) associates social capital with the ability of people to work together for common purposes, crucial for democracy and economic growth. According to Hassan (2014), social capital is essential in facilitating adoption and overcoming barriers caused by a lack of natural, human, and financial capital. A society's foundation comprises more than its institutions; it is the glue that binds them all together. Social capital is a collection of horizontal linkages between individuals, social networks, and associated norms that influence the productivity and well-being of a society.

Trust is acknowledged as a key measure of social capital, playing a crucial role in coordinating and cooperating for mutual benefit. This concept has seen diverse interpretations, but there is a consensus around reciprocity and trustworthiness (IIRC, 2013). Nahapiet and Ghoshal (1998) highlighted the reciprocal nature of trust and cooperation, stressing that a lack of trust hampers creativity and collaboration. Furthermore, Yu-Shu et al. (2015) identify that, at its core, social capital is a reflection of the inherent traits and character prevalent within an organisation's people. It is cultivated through mutual and group trust, aiming to align towards common organisational goals. Social capital manifests in three distinct forms - relational, which concerns the nature of interpersonal relationships; structural, which relates to the actual connections within the organisation's network; and cognitive, which pertains to the shared mental schemas and understandings within the group. These forms of social capital contribute significantly to the overall SRC, enhancing the organisation's capability to achieve its objectives effectively.

Nahapiet and Ghoshal (1998) noted that over time, social network contacts led to the development of the relationship between social capital and intimate association. This aspect of social capital encompasses associations between SMEs and various individuals, often rooted in a shared past, trust, respect, and friendship (Muniady et al., 2015). According to Carr et al. (2011), since most businessmen and women feel more at ease conducting business with friends and people they trust, mutual trust, relational ties, and friendship facilitate business relationships. This explains why the majority of SMEs and entrepreneurship businesses continue to be family-owned and operated.

According to Li et al. (2013), trust makes obtaining capital easier, making SRC a significant phenomenon. However, the relationship between SRC and firm

performance is nuanced. While Lee (2015) found a weak correlation between these factors among female entrepreneurs in China, Pratono et al. (2016) observed a favourable and considerable association. Women entrepreneurs display proficiency in exploiting their social network to get startup financing, and there is evidence that this relationship exists between women entrepreneurs and the relational dimension of social capital (Setini et al., 2020; Mozumdar et al., 2017). According to scholars such as Yu-Shu et al. (2015) and Pratono et al. (2016), this tends to facilitate and accelerate business and improve business performance.

In the RBV framework, relational capital is considered a vital element of social capital that emerges due to the complex nature of business activities. These activities are interconnected through information exchange, facilitating knowledge integration and learning within alliance relationships. Consequently, strategic alliances have a significant impact on enabling access to valuable resources, promoting knowledge integration, and enhancing the performance of SMEs (Schoenherr et al., 2015).

Relational capital, as one of the components, contributes to BMI by enabling supply chain collaboration, which refers to the extent of strategic alignment and information sharing among supply chain partners. Effective supply chain collaboration enhances BMI by improving operational efficiency, reducing costs, increasing customer satisfaction, and fostering both radical and incremental innovation (Russell et al., 2015). Collaboration among stakeholders within the supply chain facilitates the exploration and exploitation of new ideas, leading to improved business models and sustained competitiveness (Thi Mai Anh et al., 2019)

Furthermore, relational capital provides several benefits that support BMI. It offers access to new markets and channels, facilitates the sharing of intellectual

property or infrastructure, reduces risk and uncertainty, enhances legitimacy and social license, and fosters the creation of social and environmental value (Ramírez-Solis et al., 2022). By leveraging these relational assets, organisations can achieve sustainable competitive advantage and drive innovation through BMI.

Relational capital can also vary depending on the type and quality of relationships an organisation maintains with its stakeholders. It can be categorised into three types: horizontal, vertical, and lateral. Horizontal relational capital pertains to connections with competitors or peers within the same industry or market. Vertical relational capital relates to associations with customers or suppliers along the value chain. Lateral relational capital involves partnerships or alliances with entities from different industries or markets (Ramírez-Solis et al., 2022). Each type of relational capital has distinct implications for BMI and organisational performance. Horizontal relational capital can facilitate BMI by fostering benchmarking, learning, and imitation, but it can also present challenges by intensifying competition, imitation, and lock-in effects. Vertical relational capital can promote BMI through enhanced customer satisfaction, loyalty, and feedback, but it may also impede BMI by creating dependencies, opportunistic behaviour, and resistance to change. Lateral relational capital can contribute to BMI by expanding market opportunities, resources, and capabilities, but it can also introduce complexities, uncertainties, and potential conflicts (Ramírez-Solis et al., 2022).

The dynamics of relational capital can be influenced by organisational leadership empowerment. Leadership empowerment refers to the degree to which leaders delegate authority, encourage participation in decision-making, and promote problem-solving among their followers (Andreini et al., 2022). Leadership empowerment plays a moderating role in the relationship between relational capital and BMI, enhancing or reducing employees' motivation, creativity, and autonomy

in engaging with BMI processes. It empowers employees to learn from competitors and generate novel ideas in the context of horizontal relational capital. It also enables employees to overcome customer resistance and propose innovative solutions within vertical relational capital. Additionally, leadership empowerment strengthens the positive impact of lateral relational capital by facilitating collaboration with partners and leveraging their resources and capabilities (Andreini et al., 2022).

Understanding the different types of relational capital and the influence of leadership empowerment enables organisations to navigate complexities and capitalize on the opportunities associated with BMI. Effectively managing and leveraging relational capital enhances an organisation's ability to innovate, collaborate, and create value, leading to sustainable competitive advantage and long-term success (Ramírez-Solis et al., 2022; Russell et al., 2015; Thi Mai Anh et al., 2019; Andreini et al., 2022; Duan et al., 2021).

Relational capital holds significant value for SMEs in their relationships with external stakeholders, including customers, suppliers, partners, investors, regulators, and communities. For SMEs, relational capital plays a crucial role in acquiring and exchanging essential resources, information, skills, systems, knowledge and intangible assets necessary for their survival and success in producing goods or provisioning services (Ryu et al., 2021). It enables SMEs to overcome limitations such as a lack of financial capital, human capital, technological capabilities, and market access (Muda et al., 2022).

The success of firms, particularly SMEs, is strongly influenced by their ability to focus on customers' needs and meet their requirements. Relational resources that extend beyond firm boundaries have been recognized as critical for achieving competitive advantage (Theoharakis et al., 2009). Open innovation

literature supports the positive impact of transcending firm boundaries on performance, especially for resource-constrained SMEs (Chesbrough et al., 2018).

Relational capital extends beyond fostering innovation through external relationships; it encompasses various relational resources such as technological reputation, brand, marketing capability, customer connection, and open innovation with business and scientific partners (Agostini et al., 2017). Cultivating strong interactive relationships with stakeholders, customers, and suppliers is crucial for creating and maintaining stable relational capital. This involves having robust marketing capabilities to satisfy current and future customers, acquiring knowledge from external sources and integrating it into products or services (Hsu and Fang, 2009), and investing in reputation and brands that attract customers and influence buying-selling processes (Agostini et al., 2017).

SMEs with strong relational capital can benefit in various aspects of performance, including innovation, marketing, resilience, and sustainability. Relational capital fosters innovation by facilitating learning, collaboration, and imitation with stakeholders who provide new ideas, solutions, and feedback (Ryu et al., 2021). It improves marketing performance by enhancing customer satisfaction, loyalty, advocacy, and expanding market opportunities and channels. Relational capital also enhances resilience by enabling adaptation, recovery, and transformation in response to environmental disturbances or changes (Muda et al., 2022). Additionally, it supports sustainability by creating positive impacts or reducing negative consequences for the environment and society (Ryu et al., 2021).

However, relational capital is not a static or homogeneous concept. It varies based on the type and quality of relationships that SMEs maintain with stakeholders. It can be categorised into horizontal, vertical, and lateral types, depending on the position of stakeholders relative to the SMEs (Muda et al., 2022;



Ramírez-Solis et al., 2022). Horizontal relational capital pertains to relationships with competitors or peers in the same industry or market, while vertical relational capital involves associations with customers or suppliers along the value chain. Lateral relational capital refers to partnerships or alliances with entities from different industries or markets (Muda et al., 2021). Each type of relational capital can have different effects on SMEs' performance depending on the context and objectives of the SMEs (Muda et al., 2021).

Furthermore, collaborations with suppliers, customers, and other external partners enable SMEs to leverage external expertise and improve business strategies, leading to enhanced performance (Robson and Bennett, 2000). Studies by Robson and Bennett (2000) have shown that strong ties with suppliers, particularly those that operate nationally or internationally, positively correlate with employment and turnover growth, while local collaborations improve profitability. Hence, relationship management requires careful management and alignment by SME owners or managers. It can be influenced by factors such as trust, commitment, communication, cooperation, coordination, reciprocity, reputation, legitimacy, and social norms (Agostini et al., 2017). These factors impact the motivation, creativity, autonomy, and satisfaction of the SMEs' employees and stakeholders involved in relational activities (Welbourne, 2020). Therefore, SMEs need to identify and engage with relevant stakeholders, understand their needs and expectations, communicate their value proposition and impact, and co-create solutions that balance economic, social, and environmental outcomes (YahiaMarzouk and Jin, 2022).

In conclusion, relational capital holds great significance for SMEs in their interactions with external stakeholders. It helps SMEs acquire resources, overcome limitations, and enhance their performance in areas such as innovation, marketing,

resilience, and sustainability. Understanding the different types of relational capital and actively managing it through effective stakeholder engagement and relationship-building strategies is crucial for SMEs seeking long-term success.

#### **f) Natural capital**

According to IIRC (2013), natural capital includes all environmental processes and resources, both renewable and non-renewable, that produce goods or services that contribute to a business's past, present, or future success. In addition to minerals and forests, these capitals also include land, air, and water. Biodiversity and the health of the ecosystem are two other examples of this capital. Natural resources such as land, water, air, living things, and ecosystems are referred to as natural capital (Cohen et al., 2019).

The resources present in the environment, both renewable and non-renewable, are collectively referred to by Helm (2019) as natural capital. Natural resources we receive for free but do not regenerate are considered nonrenewable. They usually consist of inanimate objects, such as metals like copper, lead, oil, gas, and coal. Given certain technological presumptions, the optimal depletion rates and the intertemporal equity of non-renewable resources are substantially determined.

Future business generations won't have them if they are currently exhausted and converted through production into outputs and utilities. Future choices are constrained for them. If a business uses these non-renewable resources right away, it should pay future business generations back for their loss in order to be fair to all generations. They ought to roughly reinvest the economic profits from depletion into other forms of capital so that they have these instead.

In addition, Helm (2019) noted that in order to maintain and advance renewable energy sources, public policy must be carefully calibrated. A renewable resource is a natural capital that nature provides for free and will continue to do so

as long as businesses do not allow it to be exhausted to the point at which it cannot sustainably reproduce itself. In neoclassical terminology, the value of renewable is the discounted utility from its yield beyond the threshold in perpetuity, or forever. Without a discount rate, that value is illimitable. Additionally, because it is projected into the limitless future, businesses cannot predict the technology that will be available in the future to take advantage of this windfall and, as a result, cannot determine the genuine option value.

In a nutshell, natural capital is an idea whose time has come. However, like sustainability, it runs the risk of being greenwashed to serve special interests. It is a challenging idea that is based more on assets than the utility. Natural capital assets lay the groundwork for positive freedom by ensuring the capacities and options for coming generations. This is especially true for renewable natural capital, which, so long as crucial thresholds are not crossed, can perpetually offer the richness of nature. Natural capital assets require capital upkeep and lend themselves to accounting, balance sheets, and risk registers. Since the natural environment is made up of systems and is less accessible to marginal analysis, cost-benefit analysis, which is partial and done project by project, has a limited application.

According to Cohen et al. (2019), significant substitutability between manufactured and natural capital is required for sustaining economic development in the long run in the absence of technical advancement. The weak sustainability concept has come under fire for tolerating an arbitrary high level of natural capital replacement with manufactured capital. Since natural capital supplies essential life support systems, including food, water, breathable air, and a stable temperature, it is obvious that this is not plausible.

According to the "strong sustainability" perspective, natural capital must be kept at minimum levels in order to sustain production and consumption over the

long term since it performs tasks that can't be replaced by manufactured capital (Ekins et al., 2003). If following the "strong sustainability" approach, which holds that the elasticity of substitution between manufactured and natural capital is, in fact, very low, it is hard to sustain economic output and consumption over the long term without preserving natural capital reserves. Thus, it is crucial to comprehend the connection between sustainability and substitutability (Cohen et al., 2019).

But it is complicated. For instance, a large portion of the natural capital that is in danger is renewable rather than exhaustible. Even at low levels of substitutability, sustainable development might be achievable if renewable natural capital regenerates quickly enough. However, the regeneration processes of many types of natural capital are variable and unclear (Yun et al., 2017). Apart from that, substitutability varies throughout both space and time.

In addition, technical advancement may serve as the last arbiter of sustainability. It might be possible to protect enough natural capital and maintain growth in the long run, even if the level of substitutability is currently low, if technological advancement enables production to become less and less dependent on natural capital over time—that is if technology increases substitutability quickly enough over time (Acemoglu et al., 2012). In fact, many types of natural capital, like climate stability, need a fast increase in technical progress, like the development of cleaner and more efficient technologies.

***Proposition #2: Effective management of finance, manufactured, intellectual, human, social and relationship, natural resources significantly contributes to the sustainability and competitive advantage ICT reseller SMEs.***

### 2.6.2 Stakeholder Theory

Freeman et al. (2021) researched integrating stakeholder theory with RBV in strategic management. This approach argues for the inclusion of stakeholder perspectives in understanding and utilizing a firm's resources for competitive advantage. It highlights the significance of stakeholder relationships as crucial assets, proposing a more holistic and sustainable approach to strategic management. This synthesis offers a new lens for viewing firm strategy and resource management, advocating for a stakeholder-inclusive approach to achieving sustainable success in business.

Stakeholder theory, which was developed in the late 1970s, proposes a new role for corporations and has been influential in shaping the understanding of stakeholder relationships (Loorbach and Wijsman, 2013). In 1984, Freeman's book "Strategic Management: A Stakeholder Approach" introduced this idea, emphasising the importance of understanding relationships beyond traditional groups such as suppliers, customers, and employees to include non-traditional groups like the government, environmentalists, and special interest groups. Freeman (1984) argued that for businesses to manage their organisations more successfully, they needed to understand their relationships with not only traditional groups like suppliers, customers, and employees, but also non-traditional groups like the government, environmentalists, and special interest groups. Stakeholder theory suggests that organisations should manage their stakeholder relationships to balance the interests and expectations of different stakeholder groups, creating value for all stakeholders (Parmar et al., 2010). Freudenreich et al. (2020) suggest a paradigm shift from business models solely focused on value creation to models prioritising organizing and facilitating stakeholder relationships and value exchanges.

Stakeholders are categorised into primary and secondary stakeholders, with primary stakeholders having a more direct impact or being more influenced by the company than secondary stakeholders (Castka and Prajogo, 2013). Initially, stakeholder theory focused on social stakeholders but has more recently expanded to include non-social stakeholders in addressing environmental challenges (Lozano et al., 2015).

Stakeholder theory has found application in various fields, such as corporate social responsibility, corporate governance, ethics, strategy, and innovation (Freeman et al., 2021; Donaldson and Preston, 1995; Parmar et al., 2010; Harrison et al., 2015). Notably, stakeholder theory has been recognised as a relevant and useful lens for understanding and designing BMI for sustainability (Geissdoerfer et al., 2018; Goni et al., 2021).

In many business model concepts, value creation is often conceptualized as a unidirectional flow between a business and its customers, with other stakeholders playing secondary roles. More often than not, business model concepts conceptualize value as a uni-directional flow between a business and its customers, emphasising the creation of value for customers in exchange for economic value for the business. Other stakeholders, if considered at all, seem to be standing on the sidelines. This is evidenced in the well-known business model canvas by Osterwalder and Pigneur (2010), which places the value proposition for customers in the centre and the monetary outcomes for the focal business as the key outcome or bottom line.

The customer value proposition is recognized as a crucial strategic element in the context of ICT reseller SMEs (Wheelwright, 2019). This concept extends beyond the simple transactional value, encapsulating the holistic experience of how customers receive and perceive the value of products and services. This perspective

acknowledges the integral roles of customers, employees, and distributors in the value delivery chain. Their collective contributions are important in ensuring the end-to-end value realisation, resonating with stakeholder theory's inclusive approach to business strategy.

However, traditional business model concepts often prioritize value creation for customers over other stakeholder concerns, separating stakeholders into value recipients and value creators. This perspective has resulted in a limited consideration of the interests of multiple stakeholders and a focus primarily on the customer (Prendeville and Bocken, 2017).

The stakeholder approach emphasises that firms should respond to pressures and requests from their stakeholders to achieve their strategic objectives (Linnenluecke and Griffiths, 2013). It contrasts with the shareholder approach, which focuses on maximizing profits for owners (Friedman, 1970). Stakeholder theory acknowledges the importance of considering various stakeholders' needs for organisations' long-term survival (Hasnas, 1998).

According to the stakeholder theory, the firm's existence is the key concern for businesses. According to Lee (2008), in addition to shareholders, a number of other stakeholders are impacted by this, including employees, governments, clients, and the general public. Due to its original viewpoint, stakeholder theory has greatly impacted CSR research. The stakeholder-related research has made an effort to include CSR principles. For instance, Zhao et al. (2012) created a CSR indicator system for the construction industry that explicitly specifies the appropriate indicators for each stakeholder of construction companies after identifying the important stakeholders of construction corporations.

Stakeholder theory is relevant to business sustainability because it provides a comprehensive and holistic view of how organisations can create value for their

stakeholders in the long term while also addressing the economic, environmental, and social challenges and opportunities in their context (Dyllick and Hockerts, 2002; Elkington, 1997). Business sustainability requires organisations to adopt a holistic and systemic perspective that considers the interdependencies and trade-offs among different dimensions and levels of sustainability (Stubbs and Cocklin, 2008). Stakeholder theory can help organisations achieve this by facilitating stakeholder dialogue, collaboration, learning, and adaptation (Dentoni et al., 2018; Geissdoerfer et al., 2018). Sustainable business models incorporate multiple stakeholder concerns in how business is done, whereas service design focuses on the customer, who are the key 'stakeholder' (Prendeville and Bocken, 2017).

Stakeholders play a significant role in shaping organisational decisions and performance through various means. Firstly, stakeholders possess the ability to provide or withhold crucial resources and capabilities necessary for the survival and success of the organisation, including capital, labour, knowledge, technology, reputation, and legitimacy (Kujala et al., 2019; Hillman and Keim, 2001). Secondly, stakeholders can both impact and be impacted by the organisation's actions and outcomes, such as products, services, processes, and overall impacts (Clarkson, 1995; Parmar et al., 2010). Thirdly, stakeholders have the power to express their values and norms and influence the organisation's behaviour and culture in terms of ethics, norms, standards, and expectations (Donaldson and Preston, 1995; Parmar et al., 2010)

Consequently, organisations must consider the interests and expectations of diverse stakeholder groups when making decisions and evaluating their performance. This consideration helps organisations to prevent or alleviate potential conflicts or risks with stakeholders, such as lawsuits, boycotts, or protests. (Harrison et al., 2010; Mitchell et al., 1997). Simultaneously, it enables



organisations to capitalize on opportunities and benefits that arise from positive stakeholder engagement, such as innovation, loyalty, and advocacy. (Freeman et al., 2010; Harrison et al., 2010). By actively managing stakeholder interests, organisations can navigate potential challenges and leverage advantageous opportunities, leading to overall improved performance and sustainable success.

In line with stakeholder theory, businesses need to grasp and steer the complex interactions with their stakeholders, an ever-changing process. Companies should continuously review these relationships and be ready for shifts, underlining the need for strategic flexibility and agility (Wheelwright, 2019). The concept resonates with the stakeholder theory's advocacy for a balanced perspective in managing stakeholder engagements, recognizing that overemphasising risks and overreliance on trust can be detrimental. This balance is crucial in maintaining healthy relationships that are integral to a firm's long-term strategy and success. Big companies often make their long-term plans by looking at major outside influences like societal, technological, economic, ecological and political factors. Based on the research by Wheelwright (2019), smaller businesses, on the other hand, need to pay more attention to what's happening inside their own company as these internal dynamics are what spark change from within. A more comprehensive approach to strategic management requires integrating a resource-based view with stakeholder insights, as "there is no value without valuers" (Freeman et al., 2021). That is why this research is delving into the resource-based view to really understand these internal drivers.

#### **2.6.2.1 Stakeholder Management in ICT Reseller SMEs**

Stakeholder theory puts people at the centre, which matches the crucial role of stakeholders in the business activities of ICT reseller SMEs. The ecosystem of stakeholders in the ICT resellers domain is extensive, encompassing a variety of

individuals and entities whose interests and actions directly impact the business's operations and success. Based on the researcher's experience in the industry, the network includes, but is not limited to, the business owners, the customers utilizing the technology solutions, project coordinators, IT support staff, enterprise architects, investors, legal and regulatory bodies, employees, subcontracting firms, principals, distributors, logistic providers, service providers, competitors within the ICT space, financial institutions, insurance providers, media outlets, community leaders, neighbouring businesses, the general public, governmental agencies, consumers and regional development bodies.

Stakeholder management in the ICT reseller domain involves recognising and prioritising the needs and contributions of various stakeholders, which are essential for creating total value within the organisation. According to Freeman and Phillips (2018), the five key stakeholders- customer, employee, supplier, community, and financier significantly influence the total value created in an organisation. Each stakeholder has the potential to influence the trajectory of an ICT reseller's business at various stages, with some exerting influence more significantly than others, such as the principals, distributors, customers and employees. The presence of such a diverse array of stakeholders necessitates that ICT resellers SMEs in Malaysia develop effective strategies for stakeholder management, ensuring that they can navigate the complexities of relationships, expectations, and demands. Effective stakeholder management in this context involves understanding each stakeholder group's unique needs and influences, engaging in proactive communication, fostering strong partnerships, and strategically aligning and fostering agility in business practices to accommodate and leverage these relationships for mutual (Freeman and Phillips, 2018; Chinyio and Olomolaiye, 2009). By doing so, ICT reseller SMEs can ensure a more

sustainable and successful operation in the competitive and ever-evolving landscape of ICT.

Stakeholder management within the ICT reseller sector is an essential aspect of strategic business operations, drawing on principles established in the foundational stakeholder theory by Freeman in 1984. This theory proposes that businesses thrive not merely through profit maximization but through achieving a balance among the stakeholder's expectations for a firm's long-term survival and success (Donaldson and Preston, 1995; Clarkson, 1995). The different interests of the stakeholders can sometimes conflict, necessitating a strategic approach to stakeholder management. As these interests are dynamic and dealing with humans, it becomes imperative for ICT resellers to actively manage the shifting balance between stakeholder interests to ensure alignment with business objectives (Chinyio and Olomolaiye, 2009).

Effective stakeholder management in the ICT reseller domain is predicated on identifying and categorising stakeholders and actively integrating their feedback into the business model, thereby ensuring the business's agility, growth and resilience (Pedrini and Ferri, 2019). It is about balancing diverse and often competing interests, where success hinges on the ICT reseller's capacity to align their operational strategies with their stakeholders' evolving needs and expectations of their stakeholders (Donaldson and Preston, 1995).

The dynamic capabilities framework further accentuates this by emphasising the necessity for ICT resellers to develop the ability to sense shifts in stakeholder demands, seize emerging opportunities, and maintain a resilient stance in the face of disruptions (Teece et al., 1997). This entails a proactive and anticipatory approach to stakeholder interactions, ensuring that the ICT resellers are

well-positioned to adapt to changes, thus safeguarding their sustainability (Barney, 1991).

For ICT resellers, stakeholder management is interwoven with strategic resource management, as further delineated by the RBV. It necessitates effectively allocating tangible and intangible resources to nurture stakeholder relationships that underpin the company's competitive advantages (Freeman and Phillips, 2018). The researcher believes that stakeholder management in ICT resellers is not a peripheral activity but catalyses BMI and underpins long-term viability.

***Proposition #3: Strategic stakeholder management enhances capabilities of ICT reseller SMEs.***

### **2.6.3 Incorporating RBV into a Stakeholder Perspective**

In the context of this study, adopting the 6C perspective on integrated resources plays a critical role in understanding how organisations create value over time. While RBV traditionally focuses on internal firm resources, incorporating a stakeholder perspective acknowledges that a firm's ability to generate and sustain competitive advantage also depends on the resources and capabilities provided by stakeholders.

Barney (2018) argues that stakeholder theory must be integrated with RBV to provide a more comprehensive understanding of profit generation and appropriation. He contends that stakeholders beyond shareholders play a critical role in providing the necessary resources for firms to achieve economic profits. This perspective aligns with the concept that economic profits are generated by leveraging internal resources and effectively managing relationships with key stakeholders, including suppliers, customers, and partners (Freeman et al., 2021; Freeman, 1984).

Incorporating stakeholder theory into RBV involves recognizing that stakeholders contribute valuable resources that are integral to the firm's operations and strategic objectives. This approach emphasises that stakeholders, such as employees, customers, suppliers, and partners, possess critical resources and capabilities that can enhance the firm's competitive advantage. For instance, strategic partnerships and collaborations with key stakeholders can provide access to new markets, innovative technologies, and essential knowledge, thus driving business sustainability and growth.

This section explores the importance of effective stakeholder management in enhancing and preserving these capitals for sustainable value creation.

#### **a) Financial Capital and Stakeholder Management**

Financial capital refers to the pool of funds available to an organisation to produce goods or provide services (IIRC, 2013). Effective stakeholder management, particularly with investors and shareholders, is crucial for securing financial resources and support for strategic investments (Freeman, 1984). Communication and engagement with financial stakeholders can lead to sustained investment and financial stability, which underpin the organisation's growth and value-creation activities. In the case of the ICT reseller SMEs, the government, distributors, suppliers, business partners, family and friends might play a role in their business.

#### **b) Manufactured Capital and Stakeholder Management**

Manufactured capital includes the physical objects or facilities through which goods are produced or services delivered (IIRC, 2013). Suppliers and regulatory agencies are key stakeholders in the management of manufactured capital. Collaborative relationships with suppliers can ensure the timely and efficient acquisition of quality materials, while compliance with regulatory

standards safeguards the operational capability of manufactured assets (Porter and Kramer, 2011). In the realm of ICT reseller SMEs, this includes the infrastructure like data centres and the hardware and software products sourced from suppliers and sold to customers. This could mean working closely with cloud vendors, hardware distributors, and software providers, all of whom play a role in the operational effectiveness and sustainability of the physical assets.

#### **c) Intellectual Capital and Stakeholder Management**

Intellectual capital encompasses organisational knowledge, systems, procedures, and patents contributing to competitive advantage (Steward, 1991). Engaging with academic institutions, industry partners, and employees is vital for developing and protecting intellectual capital. Through collaborative innovation and knowledge-sharing initiatives, organisations can enhance their intellectual assets and foster a culture of continuous improvement (Elia et al., 2017). From the perspective of ICT reseller SMEs, the stakeholders could consist of technology partners, employees, distributors and academic institutions. These relationships provide access to cutting-edge research, technological advancements, facilitate access to talent and innovative practices that can enhance the ICT reseller's product offerings and service capabilities.

#### **d) Human Capital and Stakeholder Management**

Human capital refers to the skills, experience, and motivation of an organisation's employees (AlQershi et al., 2021). Effective stakeholder management practices that focus on employee engagement, development, and well-being can enhance the value of human capital. Organisations can improve employee productivity, innovation, and loyalty by investing in training and creating a supportive work environment (Pfeffer et al., 2010) (Joia, 2007). This could involve employees from both the management and the working levels.

#### **e) Social and Relationship Capital (SRC) and Stakeholder Management**

The SRC encompasses the institutions and relationships within and between communities, groups of stakeholders, and other networks, as well as the potential to share information to enhance individual and collective well-being (OECD, 2001). Stakeholder management, as outlined by Freeman (2023), is a systematic and strategic process designed to engage with stakeholders, aligning their expectations effectively and needs with the organisation's objectives. SRC is a component of an organisation's value creation model. In contrast, stakeholder management is a strategic process aimed at actively managing relationships with all stakeholders to ensure the successful achievement of specific projects or organisational objectives. In the realm of ICT reseller SMEs, the most important stakeholders are the customers, principals, employees followed by the distributors, industry partners but all and all can play a very significant role to determine the success and sustainability of the business. For ICT reseller SMEs, integrating SRC with stakeholder management involves leveraging the strong relationships and networks to engage stakeholders meaningfully in the business's value creation process. As the primary stakeholders, customers dictate the demand and preferences that drive the reseller's product offerings and service standards. Principals and industry partners provide the technological and operational backbone, enabling the SMEs to offer competitive solutions. With their knowledge and expertise, employees are pivotal in delivering value to customers and maintaining operational efficiency. Finally, distributors extend the reach of the SMEs, facilitating market access and customer engagement.

## **f) Natural Capital and Stakeholder Management**

Natural capital consists of the renewable and non-renewable environmental resources that support life and economic activity. Stakeholders increasingly prioritize environmental sustainability, making it imperative for organisations to engage with environmental groups, regulatory bodies, and the community to manage their impact on natural capital. Sustainable practices and initiatives that reduce environmental footprints can enhance an organisation's license to operate and appeal to environmentally conscious stakeholders (Helm, 2019). For ICT reseller SMEs, integrating environmental sustainability into their business model is often contingent upon the innovations provided by their principals and the demands of their customers. While these SMEs might be at an early stage in directly influencing the sustainability of the products they distribute, they can play a crucial role in promoting and choosing to resell products that align with sustainable practices. By doing so, ICT reseller SMEs can contribute to the broader adoption of environmentally friendly technologies and practices within their industry.

### **2.6.4 Dynamic Capabilities and Business Model Innovation (BMI)**

The earlier section highlights that integrating the RBV with stakeholder theory creates valuable resources for a company. When combined with dynamic capabilities, this integration enables the company to enhance its ordinary capabilities and, together with its partners' capabilities, focus on high-payoff endeavours that are challenging to replicate (Teece, 2018). Therefore, the researcher is of the opinion that the integration of dynamic capabilities with RBV and stakeholder theory creates a holistic approach to strategic management. It ensures that firms leverage their internal resources and are agile enough to adapt to external changes and stakeholder demands. This approach is particularly relevant



for ICT reseller SMEs in Malaysia, where rapid technological changes and evolving customer needs require a proactive and adaptive business model.

'Dynamic capabilities' can be dissected in the terms 'dynamic' and 'capabilities.' Revisiting the RBV, 'capabilities' can be seen either as processes utilizing resources or as resources themselves (Ployhart, 2021). Barney (1991) suggests that capabilities can be a subset of resources. However, dynamic capabilities transcend this definition, as they are not merely resources but transformative processes that reshape the resource base to ensure future relevance, as Winter (2003) and Eisenhardt and Martin (2000) noted. Firms utilize their current valuable resources for immediate operational needs, but it is through dynamic capabilities that these resources are reconfigured for long-term strategic advantage. Without dynamic capabilities, present capabilities may become obsolete and unable to adapt to change.

Dynamic capabilities theory, as extended from the firm's RBV by Teece and Pisano (1994), contends that firms within the same industry exhibit performance variances due to differing resource and capability endowments. While RBV, as articulated by Barney (1986, 1991) and Peteraf (1993), tends to be static, focusing on the possession of unique, imitable resources, Priem and Butler (2001) criticize it for inadequately explaining competitive advantage under market flux. Dynamic capabilities, therefore, are crucial to BMI and involve an organisation's ability to "integrate, build, and reconfigure internal and external competencies to address rapidly changing environments characterised by consumer needs, technological opportunities and competitor activity" (Teece, 2018). This dynamic nature is pivotal for ICT reseller SMEs in Malaysia, enabling them to adeptly navigate and adapt to fast-evolving market conditions.

These capabilities are split into three fundamental actions: sensing changes, seizing opportunities, and reconfiguring resources, which Teece et al. (1997) emphasise as essential for maintaining competitive advantage through continuous adaptation and strategic reorientation. For example, the Covid-19 pandemic has shown the importance of SMEs having these three capabilities of being able to a) sense / anticipate threats or opportunities that provide ample time for preparation, b) once sensed, seize strategic opportunities by planning the resources to support, c) continuously transforming or reforming the business (Zahoor et al., 2022). Concurrently, a review by Wilden et al. (2016) underscores that microfoundations are central to dynamic capabilities that influence organisational performance, which indicates a significant gap that this thesis aims to study.

Furthermore, investigations by Vogel and Güttel (2013) into dynamic capabilities highlight learning and innovation, alongside RBV, as central themes, revealing additional areas of vertical scope and alliances as crucial to strategic management. This complements the international ambidexterity literature that identifies learning and innovation as essential capabilities for firms managing complex global environments (Hsu et al., 2013; Prange and Verdier, 2011; Luo and Rui, 2009; Luo, 2002).

As a whole, SMEs often get sucked into significant constraints in their internal resources, such as human, financial and intellectual assets. This scarcity hinders the reconfiguration of resources and creates an internal obstacle to generating value (Heider et al., 2021). Additionally, while SMEs can address these deficiencies by tapping into external resources through partnerships with external stakeholders, they often fail to invest adequately in the capabilities required to utilize these resources effectively (Sjödin et al., 2020). This underinvestment impedes their ability to innovate their value propositions. Furthermore, the

inherently small size of SMEs leads them to have lower bargaining power with the suppliers and a lack of economies of scale, which subsequently affect their capacity to capture value. Hence, it is suggested that the way in which resources are employed through capabilities is essential to the organisation. Oliveira-Dias et al. (2022) assert that dynamic capabilities serve as internal drivers crucial for stimulating sustainable business model innovation.

The role of dynamic capabilities in enhancing the sustainability of business models is critical, particularly for Malaysian SMEs navigating the complexities of digital transformation. Jaish et al. (2023) underscore the pivotal role of digitalization in the sustainability of Malaysian SMEs from a dynamic capabilities perspective. Their study reveals that the ability of SMEs to adapt quickly to environmental changes through digital means is essential for sustaining business operations amid uncertainties like COVID-19. This research highlights how dynamic capabilities, specifically the rapid integration of digital technologies, enable SMEs to remodel their business processes and offerings, ensuring resilience and continuity in turbulent times.

In summary, dynamic capabilities are internal drivers for sustainable business model innovation and are essential for SMEs to overcome inherent resource limitations and market constraints. They enable SMEs to leverage internal and external resources creatively and strategically, enhancing their value propositions and competitive positioning in the market. The following sections will further explore how these theoretical constructs are practically applied through strategic management and innovation to sustain competitive advantage and foster business sustainability.

### **a) Strategic Management and Business Sustainability**

In the previous section, the discussion on strategic management significantly leverages the perspectives introduced by R. Edward Freeman and David J. Teece. Both scholars' theories are critical in understanding how dynamic capabilities and stakeholder theories drive strategic management to contribute to the long-term sustainability of ICT reseller SMEs.

Freeman's stakeholder theory emphasises that businesses are part of a broader network of value creation that includes various stakeholders. This approach highlights the importance of incorporating ethical considerations into business operations and aligns strategic management with sustainable practices by focusing on broader stakeholder interests, including employees, customers, suppliers, and the community (Freeman, 1984). This framework underscores strategic management's ethical and relational dimensions, which are crucial for ICT resellers to build sustainable and trusting relationships with their stakeholders.

Conversely, Teece's dynamic capabilities framework focuses on a firm's ability to adapt and thrive in environments characterized by rapid technological change. This perspective is particularly relevant for ICT reseller SMEs, as it emphasises the importance of agility and the ability to reconfigure internal and external competencies efficiently (Teece, 2009). This model supports the idea of dynamic reorientation, innovation, and transformation of business models to maintain competitive advantage and ensure sustainability.

For ICT reseller SMEs, this synthesis of internal capabilities (as emphasised by Teece) and external stakeholder relationships (as emphasised by Freeman) presents a comprehensive picture of strategic management. This duality is essential for navigating the complexities of the ICT industry, where rapid changes in technology and market conditions are common. Therefore, strategic management

must include dynamic internal adjustments and the cultivation of strong, ethical external relationships to foster long-term business sustainability.

The strategic management process, as described by Cummings (2015) and further explored by Thompson et al. (2016) and Dyson et al. (2007), involves continuous evaluation, planning, and implementation. Effective strategic management requires a focus on dynamic capabilities and stakeholder engagement and necessitates clear and strategic company direction supported by leadership commitment and planning (Teece et al., 1997). This leadership-driven strategic direction ensures that SMEs remain aligned with long-term goals while adapting to short-term challenges.

Furthermore, the emphasis on flexible strategic development processes by Dyson et al. (2007) aligns with the dynamic capabilities framework. This approach is aligned with the dynamic capabilities framework. It supports the necessity of ongoing strategic adjustment and learning, which are critical for sustaining competitive advantage in the rapidly evolving ICT sector. This approach moves away from rigid long-term plans to more dynamic and responsive strategic thinking, which is vital for addressing the constant shifts in technology and market conditions.

In Malaysia, the relationship between entrepreneurial competencies and small firm performance underscores the crucial role of dynamic capabilities in strategic management. Hashim et al. (2018) explore how dynamic capabilities bridge entrepreneurial competencies and enhance business performance. Their conceptual framework posits that the development of dynamic capabilities can significantly improve performance for Malaysian SMEs, particularly in volatile economic environments. This insight is essential for understanding how strategic management practices, underpinned by dynamic capabilities, can drive sustainable

growth and stability within these enterprises, emphasising the need for Malaysian SMEs to develop such capabilities to navigate and exploit changing economic landscapes effectively.

Singh et al. (2019) further highlight the importance of dynamic capabilities and relational learning in boosting the innovation performance of Malaysian manufacturing SMEs, underscoring their pivotal roles in strategic management and business continuity. Their findings indicate that SMEs equipped with strong dynamic capabilities, complemented by effective relational learning, are better poised to adapt to rapid market changes and maintain a competitive edge. This adaptability is essential for sustaining business operations and securing long-term viability amidst economic fluctuations and technological advancements. By fostering a culture that emphasises continuous learning and capability development, SMEs can more effectively navigate uncertainties, ensuring strategic resilience and continued business success.

Together, these studies provide a compelling narrative on integrating dynamic capabilities in strategic management and BMI, offering a robust framework for understanding how ICT reseller SMEs can leverage their internal strengths and external relationships to foster sustainable business practices. The necessity for dynamic capabilities in BMI stems from the need to continuously align business strategies with evolving external conditions, ensuring that companies do not merely react to changes but proactively anticipate and shape their operations accordingly. This strategic alignment is essential for fostering business sustainability, enabling firms to survive and thrive by turning potential disruptions into opportunities for growth and innovation. Given this backdrop, there is a compelling need for this research to explore how dynamic capabilities can be

systematically developed and integrated within the strategic management processes of ICT reseller SMEs in Malaysia.

Next, the thesis will transition into discussing 'Strategic Innovation and Business Sustainability.' This section will build on the established foundations of dynamic capabilities and strategic management, delving into how strategic innovation acts as a lever for business sustainability.

#### **b) Strategic Innovation and Business Sustainability**

Innovation is the key ingredient of dynamic capabilities in Teece's model (Teece, 2009). He emphasises the need for constant innovation in products, services, and business models to stay ahead of competitors. Strategic innovation has become a cornerstone in the discourse on sustainable business models, especially in sectors marked by rapid technological and market changes, such as the ICT industry. Scholars like Christensen et al. (2016) categorise the innovation process into creation, sustaining innovation, and efficiency, each phase playing a pivotal role in the lifecycle of BMI. This approach is echoed by Nawaz and Koç (2019) and Kotler (1970), who highlight the burgeoning interest and extensive literature on strategic innovation over the past three decades, noting its significance in enhancing business competencies and strategic management.

Strategic innovation, as conceptualized by Anderson and Markides (2007), is particularly relevant in developing contexts where it entails making products more accessible and appealing. This is achieved through innovations that alter the business landscape, create new markets, and redefine competitive advantages. According to empirical studies like those by Ramírez-Solis et al. (2022), innovation directly correlates with business performance, underscoring the need for SME managers to prioritize and foster a culture of innovation.

The synthesis of strategic innovation and business sustainability is profoundly discussed by authors like AlQershi et al. (2019), who assert that strategic innovation is a primary factor influencing company performance. This involves developing new business models and growth strategies that deliver exceptional value to customers and differentiate the company from its competitors. The dynamic capabilities framework supports this view by emphasising the ability to sense opportunities, seize them, and transform operations in response to external changes.

Further exploration by Diaz-Carrion and Franco-Leal (2021) and Li et al. (2020) demonstrates that strategic innovation encompasses technological advancements and novel organisational and operational strategies that collectively contribute to long-term sustainability. These strategic innovations enable firms, particularly ICT resellers, to navigate and adapt effectively to the evolving market dynamics.

Markides (1997, 1998) and subsequent scholars like Talke et al. (2011) reiterate that a firm's orientation towards strategic innovation significantly contributes to its competitive stance and ability to meet emerging market demands innovatively. Moreover, the process of strategic innovation is not an isolated event but a continuous strategic endeavour, as highlighted by Kodama (2003) and Charitou and Markides (2003). They caution that while disruptive innovation can provide substantial competitive leverage, it must be approached judiciously to avoid potential pitfalls for established businesses.

In this research, innovation is closely related to intellectual capital, as mentioned in the 6c at 2.6.1.1, due to its association with intangible assets like ideas, knowledge and creativity (IIRC, 2013). However, when considering BMI, innovation is not limited to intellectual capital. It extends into dynamic capabilities



as it needs the generation of new ideas and the ability to apply these ideas in a manner that adapts and responds to changing market conditions. In short, innovation is not just as an asset but as a strategic capability. The researcher is of the opinion that the ICT resellers SMEs in Malaysia need to develop dynamic capabilities which encompass the capacity to sense opportunities, seize them, and maintain competitiveness through agility, growth, and resilience to effectively apply their intellectual capital in a way that drives sustainable business models for a long term.

***Proposition #4: Clear company direction, supported by leadership commitment and strategic innovation, is essential for guiding ICT resellers towards sustainable growth and evolving business models.***

### **c) The Microfoundations of Dynamic Capabilities – Recognise, Revitalise and Respond**

Teece (2007) has further emphasised the importance of microfoundations in delineating how dynamic capabilities impact firm performance. According to Teece (2007), the contextual applications of dynamic capabilities can particularly benefit entrepreneurial firms by (i) sensing changes—through strategic analytics of external disruptions, (ii) seizing opportunities by effectively managing and deploying resources, and (iii) continuously transforming or reforming the business to meet evolving demands. Wheelwright (2019) extends this by stressing the importance of strategic foresight for SMEs, which involves sensing not only the immediate but also the least expected external factors (possible, plausible and probable) – social, technological, economic, ecological and political from globally and locally that could impact business. This broader perspective is vital in realising the opportunities and threats that may not be immediately apparent, such as the unforeseen challenges posed by the COVID-19 pandemic or localized issues like

the recent KFC boycotts and the ‘Allah’ sock cases in Malaysia (Bedi, 2024; Ng, 2024).

Teece (2009) emphasises that dynamic capabilities encompass ongoing learning and the assimilation of new knowledge. This process is crucial for identifying opportunities and threats, capitalising on opportunities, and transforming the organisation to sustain competitiveness. Feedback mechanisms enable organisations to adjust their strategies and operations based on new information and experiences, ensuring they stay agile and responsive.

The necessity for SMEs, particularly ICT reseller SMEs in Malaysia, to develop this foresight goes beyond mere survival; it’s about leveraging dynamic capabilities to secure business continuity, adaptability and sustainable growth amidst fierce competition and constant market evolution. The researcher is of the opinion that it is crucial for these firms to establish robust mechanisms for recognising a wide array of market dynamics and challenges, realising emerging opportunities and threats through comprehensive resource management, and strategically responding to ensure long-term performance and growth. This approach prepares SMEs to handle current market demands and equips them to respond and capitalize on unforeseen events, thereby maintaining competitiveness and fostering sustainable development in a rapidly changing sector.

***Proposition #5: ICT reseller SMEs with strong dynamic capabilities (recognise, revitalise, respond and learning) will be better positioned to sustain growth in a competitive environment***

## **2.7 Research Gap and Unresolved Issues from the Past Literature**

Despite the growing body of research on business models, sustainable innovations, and business sustainability, the literature predominantly examines

larger enterprises and various other SMEs across different regions; their findings do not translate directly to the unique challenges faced by Malaysian ICT resellers (Matarazzo et al., 2021; Ahmad et al., 2020; Müller et al., 2018; Arbussa et al., 2017; Lindgren, 2012). As a result, these studies do not directly address Malaysian ICT resellers' distinct challenges, particularly when considering the critical intermediary role these businesses play between upstream IT vendors or manufacturers and end customers (Müller and Däschle, 2018).

Additionally, there is a growing concern that Western-based BMI practices may not seamlessly apply to the Asian market due to significant differences in business environments and cultural practices (UN Global Compact Network Malaysia & Brunei, 2022; Rohlfer and Zhang, 2016). This discrepancy suggests that the existing models and frameworks developed in Western contexts might not be entirely suitable or effective for Malaysia ICT resellers, necessitating a localized approach to understanding and implementing BMI.

Furthermore, while there is substantial research on BMI and its impact on business sustainability, there is limited understanding of how these concepts specifically apply to ICT reseller SMEs in Malaysia (Müller et al., 2021). The unique operational dynamics, market conditions, and competitive pressures these SMEs face require a tailored approach that has not been adequately addressed in the current body of knowledge. These challenges, compounded by resource limitations, make it difficult for these businesses to sustain growth and remain competitive. Therefore, this study seeks to bridge the gap by identifying the specific challenges these ICT reseller SMEs face, determining the fundamental elements of BMI that contribute to their sustainability, and recommending a comprehensive BMI framework tailored to their unique industry.

Alam and Noor (2009) highlighted that Malaysians entering the ICT business were driven by their ICT-related knowledge or work experience, perceived opportunities, and a passion for creating new offerings. These entrepreneurs often lacked formal business training and experience, such as in business consulting or accounting, and instead relied on their specific strengths, industry knowledge, and networks to start their businesses (Hu, 2017). Most grew their businesses by leveraging internal and external forces within the industry's ecosystem. Many began without a formal business plan but were adaptable and learned to navigate challenges as they arose. Garcia-Martinez et al. (2023) and Lindgren (2012) highlight that smaller firms tend to be more willing to modify their business models than larger enterprises, raising questions about whether current business models are sufficient to create, capture, and deliver value in today's rapidly changing environment. As Slávik et al. (2021) argue, a non-functional business model is often a key factor leading to business failure.

The sustainability of ICT reseller SMEs is no longer a choice but a necessity, with far-reaching implications for human capital and the broader economy (Franco and Rodrigues, 2021; Garrigos-Simon et al., 2018). Malaysia's ICT industry faces a persistent shortage of skilled experts (Tong and Gong, 2020). The shift from shareholder to stakeholder capitalism demands a focus on long-term value creation, considering the well-being of employees, customers, suppliers, and society at large (Piedrahita-Carvajal, 2021). The COVID-19 pandemic further emphasised the importance of foresight and responsiveness for business survival (Wheelwright, 2019). Hence, identifying key value drivers for sustainability will be instrumental in developing a BMI framework that enhances business sustainability for ICT reseller SMEs.

However, despite extensive research on BMI for sustainability, the specific challenges faced by ICT resellers have received little attention. Unlike software developers and large corporations, ICT resellers act as the middle layer between upstream IT vendors and end customers, yet their unique role in the ecosystem remains underexplored in the academic literature (Vanhala and Saarikallio, 2016; Schaltegger et al., 2016b; Müller et al., 2021).

Further complicating the situation, ICT resellers have received minimal attention in the literature, even though they play a critical role in enabling digital transformation for their customers. Most attention was given to principals (upstream IT vendors), IT manufacturers, and end customers, leaving a substantial gap in understanding the BMI of the middle layer- the supplier, distributors, and resellers (Zavala-Alcívar et al., 2020; Müller and Däschle, 2018). Their fate is probably determined by what the principal can offer them to fulfil the end customer's requirements. What should ICT resellers understand when innovating their business models in ever-changing markets in order to achieve sustainability? This question remains largely unanswered.

This study seeks to fill this gap by developing a BMI framework specifically tailored to Malaysian ICT reseller SMEs. This framework aims to guide resellers toward long-term sustainability and growth in a complex and competitive environment by addressing market competition, technological advancement, and evolving customer needs. By addressing these gaps, the study aims to provide practical insights into how ICT reseller SMEs in Malaysia can strategically innovate their business models to achieve sustainable growth and competitiveness, thus contributing valuable knowledge to the field of BMI in the ICT sector.

## **2.8 Theoretical Framework**

### **2.8.1 Theoretical Foundations**

This section introduces the theoretical foundations that underpin the conceptual framework of this study. The three key theories discussed—Resource-Based View (RBV), Stakeholder Theory, and Dynamic Capabilities—provide the theoretical lens through which the research problem is viewed. These theories help explain how firms can manage their resources, engage with stakeholders, and continuously adapt to a changing environment to achieve sustainable competitive advantage. The integration of these theories serves as the basis for exploring how ICT reseller SMEs can innovate their business models for long-term sustainability.

- **Resource-Based View (RBV):** Sustainable competitive advantage is derived from the firm's ability to effectively manage and leverage its resources. It emphasises the importance of financial, manufactured, intellectual, human, natural, social and relationship capital.
- **Stakeholder Theory:** Managing relationships with internal and external stakeholders is crucial for creating synergies and achieving business objectives. This involves understanding and addressing the needs and expectations of various stakeholders.
- **Dynamic Capabilities:** Companies must continuously adapt, renew and reconfigure their resources and capabilities to respond to changing environments. This involves recognising opportunities and threats, revitalising resources, and responding effectively to market changes.

### **2.8.2 Core Components of BMI Framework**

This section outlines the specific elements that emerge from the theoretical foundations and how they formed the conceptual basis of the research. These components build on the theoretical insights and provide the bridge between theory and the research propositions.

- **Company Direction:** Establishes the strategic vision and goals for sustainable business growth.
- **Business Model Innovation for Business Sustainability:** Serves as the central theme in guiding the integration of various elements to achieve sustainability.
- **Strategic Innovation:** Drives continuous improvement and adaptation within the business model.
- **Dynamic Capabilities:**
  - **Recognise:** Involves identifying emerging opportunities and threats.
  - **Revitalise:** Focuses on continuously improving and updating resources and capabilities.
  - **Respond:** Involves effectively reacting to changes and implementing necessary actions.
  - **Feedback and Learning Loop:** Ensures continuous improvement and adaptation by integrating feedback from all business processes.

### **2.8.3 Pillars Supporting Business Sustainability**

This section highlights the key pillars that are essential in supporting business sustainability in the ICT reseller sector:

- Agility: Refer to the ability to rapidly adapt to market changes and emerging opportunities.
- Growth: Involve fostering expansion and scaling of business operations.
- Resilience: Entails building robustness and capacity to withstand market and environmental shocks.

***Proposition #6: A well structured BMI framework with agility, growth and resilience pillars is essential for the sustainable growth.***

#### **2.8.4 Foundational Elements**

This section elaborates on the specific elements derived from the theoretical foundations that are explored in the research:

- Resource Management: Financial, manufactured, intellectual, human, natural, social and relationship capitals.
- Stakeholder Management: Emphasises managing both internal stakeholders and external strategic partnerships and collaboration.

***Proposition #7: Developing a BMI framework that incorporates resource management, stakeholder management, strategic innovation, and dynamic capabilities will significantly enhance the competitiveness and sustainability of ICT reseller SMEs***

#### **2.8.5 Research Propositions**

The research propositions outlined in this study serve as guiding statements that direct the investigation and analysis toward specific areas of interest within the scope of the research objectives. These propositions are closely aligned with the research questions and provide a focused lens through which the challenges,



elements, and frameworks related to business model innovation (BMI) for ICT reseller SMEs in Malaysia are examined. Each proposition is designed to highlight the critical factors that influence the sustainability and growth of these SMEs, ensuring that the research remains targeted and relevant to the objectives. Below is a table summarizing the research objectives, corresponding research questions, and the propositions derived from them:

#	Research Objectives (RO)	Research Questions (RQ)	Propositions (H)
A.	RO1: To examine the challenges experienced by the ICT resellers in sustaining their business in Malaysia	RQ1: What are the challenges experienced by the ICT reseller SMEs in sustaining their business in Malaysia	Proposition #1: ICT reseller SMEs in Malaysia face significant competitive pressure from market dynamics and evolving consumer behaviours, diminishing their value while impacting profit margin and sustainability
B.	RO2: To identify the fundamental elements of BMI in ICT reseller SMEs' business sustainability in Malaysia	RQ2: What are the fundamental elements of BMI that contribute to the business sustainability of ICT reseller SMEs in Malaysia?	<p>Proposition #2: Effective management of finance, manufactured, intellectual, human, social and relationship, and natural resources significantly contributes to the sustainability and competitive advantage ICT reseller SMEs.</p> <p>Proposition #3: Strategic stakeholder management enhances the capabilities of ICT reseller SMEs</p> <p>Proposition #4: Clear company direction, supported by leadership commitment and strategic innovation, is essential for guiding ICT resellers towards sustainable growth and evolving business models</p> <p>Proposition #5: ICT reseller SMEs with strong dynamic capabilities (recognise, revitalise, respond and learn) will be better positioned to sustain growth in a competitive environment</p> <p>Proposition #6: A well-structured BMI framework with agility, growth and resilience pillars is essential for the sustainable growth.</p>

#	Research Objectives (RO)	Research Questions (RQ)	Propositions (H)
C.	RO3: To recommend a BMI framework to enhance the sustainable growth of ICT reseller SMEs in Malaysia	RQ3: What will the BMI framework be to enhance the sustainable growth of ICT reseller SMEs in Malaysia?	Proposition #7: Developing a BMI framework that incorporates resource management, stakeholder management, strategic innovation, and dynamic capabilities will significantly enhance the competitiveness and sustainability of ICT reseller SMEs

The literature review reveals that the sustainability and growth of ICT reseller SMEs are deeply influenced by their ability to manage resources, engage stakeholders, and innovate strategically. Resource management, stakeholder management, and strategic innovation are critical for sustaining a competitive advantage in a rapidly changing market (Ployhart, 2021; Teece, 2009; Barney, 1991). However, integrating resource management, stakeholder management, and strategic innovation with dynamic capabilities is crucial, as dynamic capabilities provide the mechanism for continuously upgrading these elements and aligning them with the evolving business environment (Freeman et al., 2021; Teece, 2009). Therefore, the propositions for RO1 were formulated based on these theoretical insights.

In recent studies, it was observed that ICT reseller SMEs often struggle with rapid technological changes and evolving market demands, which necessitate continuous innovation and strategic foresight (Wheelwright, 2019). The scarcity of resources and the complexity of managing stakeholder relationships further complicate their ability to maintain sustained growth (Freeman et al., 2021). These challenges highlight the importance of dynamic capabilities, which enable firms to continuously adapt and reconfigure their resources and strategies to meet the demands of a changing industry landscape (Teece, 2018). Accordingly, the propositions related to RO2 address the identification of these critical elements-

resource management, stakeholder management, strategic innovation, and dynamic capabilities – that are fundamental for business sustainability.

Additionally, the study aims to develop a comprehensive BMI framework tailored to the needs of ICT reseller SMEs in Malaysia. This framework is designed to enhance their sustainable growth and competitive positioning in the market. The strategic management of resources, stakeholder management, and dynamic capabilities form the backbone of this proposed BMI framework. Consequently, the propositions for RO3 focus on how a well-structured BMI framework can significantly improve these SMEs' sustainable growth and competitiveness.

The study further explores the development of a comprehensive BMI framework tailored to the specific needs of ICT reseller SMEs in Malaysia. This framework integrates the identified elements—resource management, stakeholder management, strategic innovation, and dynamic capabilities—into a cohesive structure that enhances sustainable growth and competitive positioning within the market. Therefore, the propositions for Research Objective 3 (RO3) focus on how the integration of these elements into a well-structured BMI framework can significantly enhance the sustainable growth and competitiveness of ICT reseller SMEs in Malaysia.

In summary, the propositions related to RO1 examine the challenges ICT reseller SMEs face, such as market dynamics, technological trends, evolving customer demands, and operational inefficiencies. The propositions for RO2 explore the fundamental elements of BMI—resource management, stakeholder management, strategic innovation, and dynamic capabilities—that drive business sustainability. Finally, the propositions for RO3 suggest that a comprehensive BMI framework incorporating these elements can significantly improve the sustainable growth and competitiveness of ICT reseller SMEs in Malaysia.

## **2.9 Summary of the Chapter**

This chapter adds additional depth to examining specific critical points from various viewpoints regarding the focus of the study. Next, this study detailed the approach used to accomplish the study's objectives in Chapter 3.

## **CHAPTER 3**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter will discuss the methodology used in fulfilling the research objectives and answering the research questions of this study. This chapter begins the explanation of the methodology by emphasising the research philosophy and design underpinning this study. Then, this chapter explains the population and sampling technique that will be used in reaching the respondents. Other than that, this chapter also emphasises the sample size and instrumentation of the study. Not only that, this chapter also addresses the data collection and data analysis that will be carried out. This chapter ends with ethical concerns and qualitative reliability.

#### **3.2 Research Philosophy**

Understanding the underlying research philosophy is critical in guiding the study's approach to exploring the development of a BMI framework for ICT reseller SMEs in Malaysia. According to (Creswell, 2012; Creswell and Creswell, 2018), research philosophy shapes the choice of methods and techniques used in the study and ensures the research design is aligned with the study's objectives. This study aims to explore the challenges, opportunities, and strategies for achieving business sustainability, which involves examining subjective experiences and meanings attached to BMI in the specific context of Malaysian ICT resellers.

Creswell (2012) underscores that the research paradigm influences every stage of the research process. In line with Patton's (2002) logic, the selected paradigm should reflect the study's nature, especially when dealing with complex, real-world challenges like BMI and sustainability. The research paradigm is

typically viewed from two perspectives: positivist and non-positivist. Creswell (2012) says positivists often use scientific methods, focusing on observable and measurable facts, making them more suited to quantitative research (Aliyu et al., 2014).

However, this study adopts a non-positivist perspective, which is more appropriate for understanding the nuanced, subjective nature of human experiences in business contexts. Non-positivist paradigms, particularly constructivism and social constructivism, recognize that individuals and organisations interpret their environments based on personal experiences and contextual factors (Creswell and Creswell, 2018). Alessandrini (2012) highlights that non-positivist approaches view social phenomena through a humanistic lens, focusing on understanding rather than just measuring.

The research for this study is grounded in constructivism, which posits that knowledge and reality are constructed through human interactions and experiences (Merriam and Tisdell, 2016). This paradigm is particularly suited to understanding how ICT reseller SMEs in Malaysia navigate business sustainability and BMI. In the context of this study, knowledge about BMI and sustainability is constructed through the relationships and interactions between ICT resellers, their stakeholders, and the broader business environment (Creswell and Creswell, 2018). However, the study also employed an interpretive data collection and analysis approach. This approach is essential for interpreting ICT resellers' subjective meanings and experiences of their business practices, challenges, and strategies (Bryman and Bell, 2011). Through semi-structured interviews, the research interprets how these businesses perceive and implement BMI strategies to achieve sustainability. Together, constructivism and interpretivism allow for a deep, nuanced exploration of the complex, context-dependent realities faced by ICT resellers, enabling a more

comprehensive understanding of how these SMEs construct and interpret their paths toward business sustainability (Goldkuhl, 2012).

Relativism, a key ontological perspective within non-positivism, asserts that truth is subjective and context-dependent (Scotland, 2012). In the context of this research, the "truth" about BMI and sustainability for ICT resellers emerges from the experiences, interpretations, and meanings attached by the individuals involved. These truths are not fixed but shaped by interactions within the specific business environment (Alessandrini, 2012).

Creswell and Miller (2000) argue that the choice of research methods should be driven by the researcher's philosophical assumptions and the nature of the subject being studied. For this study, the following factors were taken into consideration:

#### **a) Complexity and Subjectivity of the Research**

BMI and sustainability are multifaceted and vary significantly between organisations. A non-positivist, constructivist approach is ideal for capturing the diversity of experiences and strategies employed by ICT resellers. This philosophical stance allows for a deeper investigation into the subjective meanings and interpretations individuals and organisations attach to BMI and sustainability.

#### **b) Human-centred Perspective**

The study's focus on exploring BMI and sustainability through the lens of ICT reseller SMEs requires a human-centred research approach. Constructivism views individuals as active participants in creating and interpreting their business environment rather than passive subjects. This aligns with the research objective of

gaining insights into how individuals within these SMEs perceive, navigate, and implement BMI strategies to enhance sustainability.

In conclusion, this study adopts a qualitative research approach grounded in the philosophical foundations of constructivism and interpretivism. The constructivist paradigm emphasises how ICT reseller SMEs in Malaysia construct knowledge and strategies for business sustainability through their experiences and interactions, while the interpretivism approach focuses on analysing the subjective meanings these businesses assign to their challenges and opportunities. The study captures in-depth insights into ICT resellers' lived experiences, perceptions, and strategies by employing qualitative methods, such as semi-structured interviews. This dual philosophical perspective allows for a comprehensive exploration of how SMEs navigate BMI and sustainability in the context of their unique environments.

### **3.3 Research Design**

The term "research design" refers to a method for conducting research. The procedure includes formulating a problem statement, examining the research issue, developing a technique, analysing the results, and justifying and explaining the results. This study used a qualitative research design with semi-structured interviews as the primary data collection method. Hammarberg et al. (2016) previously stated that qualitative research design is required to improve comprehension through direct experience because it aims to aid participants in deriving meanings from their surroundings and determine the impact of meaning influences on the situation within the organisation.

Furthermore, according to Bryman and Bell (2011), the interview method is the most popular qualitative research strategy since it provides a flexible procedure



for recording a person's significant thoughts and beliefs. According to Oishi (2003), qualitative research characterises and comprehends experience. He also explained that one-on-one interview comprises direct communication between the interviewer and the respondent. Respondents were asked an open-ended question and allowed to react freely during the interview.

Furthermore, according to Oishi (2003), respondents should be reminded that they have the right to refuse to answer any question that makes them feel uncomfortable. They may provide additional comments and ideas at any time during the session if necessary. Qualitative research also has a number of advantages. An open-ended question, according to McClelland (1998), yields a much more accurate assessment of employee attitudes and behaviour.

In this study, a qualitative case study method was selected as the most appropriate research approach to explore the complexities of BMI for ICT reseller SMEs in Malaysia. The case study method allows for an in-depth investigation of real-world phenomena within their natural context, making it ideal for examining the nuanced challenges faced by SMEs in this specific sector (Yin, 2018). This approach is particularly useful for capturing detailed insights into the strategies and decision-making processes of ICT reseller SMEs, providing a rich understanding of how these businesses manage resource allocation, stakeholder relationships, and strategic innovation to achieve sustainability.

A case study method was chosen over other research approaches, such as surveys or experiments, due to the need for context-specific insights. Surveys, for example, are often useful for gathering large-scale quantitative data but may lack the depth required to understand the intricate dynamics of how ICT reseller SMEs operate within a rapidly evolving industry. Experimental methods, on the other hand, may not be suitable as they typically involve controlled environments that do

not reflect the complexity of real-world business operations (Creswell and Creswell, 2018). In contrast, the case study method allows for a more flexible exploration of business practices, enabling the researcher to delve deeply into the experiences and perspectives of key decision-makers within these SMEs (Hammarberg et al., 2016).

Furthermore, the case study approach aligns well with the research objectives, which aim to explore not only the challenges and opportunities faced by ICT resellers but also the fundamental elements of BMI that contribute to business sustainability. By focusing on a small group of companies, this method facilitates a detailed exploration of each case, providing insights that may not be easily captured through other methods. This justifies the use of a case study approach as the most appropriate research method for this study.

### **3.4 Case Study**

#### **3.4.1 Types of Case Studies**

Several scholars have shaped the understanding of case study research, including Yin (2018), Stake (1995) and Merriam (2009). Yin (2018) classifies case studies as exploratory, descriptive, or explanatory, emphasising structured methods, clear protocols, and theoretical frameworks to ensure reliability, replicability, and generalizability. Stake (1995), on the other hand, emphasises understanding the uniqueness of cases through intrinsic, instrumental or collective approaches. Merriam (2009) adopts a more interpretivism and constructivist stance, focusing on the importance of context in understanding a case.

Given the research objectives and questions of this research, which aim to explore how ICT reseller SMEs in Malaysia achieve business sustainability through

BMI, Yin's method is highly applicable. Even though Yin's approach is often associated with a more positivist or post-positivist stance, this constructivist research aims to understand complex social phenomena from the perspectives of participants. Yin's exploratory case studies, designed to investigate "how" and "why" questions, are particularly well-suited for research in new or underexplored areas, such as BMI within the ICT reseller sector in Malaysia (Yin, 2003). This method aligns with the exploratory nature of this study, allowing for an in-depth analysis of the business models used by SMEs, which have received little attention in existing literature.

According to Yin (2018), exploratory case studies are often used when fieldwork and data collection are required to gain an initial understanding of a phenomenon, particularly when theoretical frameworks are underdeveloped or absent. This approach is highly relevant in the context of ICT reseller SMEs, where there is a gap in the literature regarding how these businesses adapt their models to sustain growth in a rapidly evolving market. By focusing on case studies, this research intends to provide a deep understanding of how ICT resellers navigate complex challenges such as market competition, technological trends, and evolving customer demands.

Lune and Berg (2017) note that explanatory case studies are more appropriate for causal research or theory development, but this study's exploratory design is ideal given the limited references and preliminary state of research on ICT resellers. Explanatory case studies tend to focus on causal links, whereas exploratory studies, as used here, aim to generate hypotheses and uncover insights that can later inform more structured research.

Thomas (2011) describes a case study as a comprehensive investigation of a system using multiple methods, making it an ideal approach for understanding the

BMI of ICT resellers. This method allows for the use of diverse data sources, including semi-structured interviews, company documents, and industry reports, providing a robust evidence base (Silverman, 2013; Yin, 2003). Furthermore, the boundaries between the phenomenon (BMI) and the context (ICT reselling industry) are blurred, reinforcing Yin's (2003) assertion that case studies are valuable when the context is critical to understanding the phenomenon being studied.

### **3.4.2 Design of Case Study**

Yin (2003) classified case studies into four types of designs: single-case holistic designs, single-case embedded designs, multiple-case holistic designs, and multiple-case embedded designs. This study adopted Type 3, a multiple-case holistic design, which examines each case holistically, focusing on a single unit of analysis before reaching conclusions across multiple case study. In the context of this research, the focus is on the ICT reseller as a whole, without narrowing it down to specific departments or processes.

The chosen method reflects the nature of the research problem, which focuses on ICT reseller SMEs in Malaysia. These companies face unique challenges, and the objective of this study is to explore how they manage business sustainability through BMI. The selected respondents are decision-makers within these SMEs, typically owners or senior managers who are directly involved in strategic business decisions. This ensures that the data collected is both relevant and insightful for understanding the nuances of resource management, stakeholder management and strategic innovation.

The research assumes that ICT reseller SMEs have varying strategies for adapting to market challenges, particularly resource and stakeholder management. It also assumes that these strategies are context-dependent and influenced by company size, resources, and stakeholder relationships. Given these assumptions, the multiple-case holistic design allows for a deeper examination of how different SMEs manage these variables, providing a rich comparison across cases.

The decision to use a multiple-case holistic design does have its potential limitations. Case study research, while offering in-depth insights, may limit generalizability due to the small sample size. However, this research does not aim for statistical generalization but rather for theoretical insights that can be applicable across similar contexts (Yin, 2018). Additionally, the multiple-case design mitigates the risk of over-generalization from a single case by providing data from various entities.

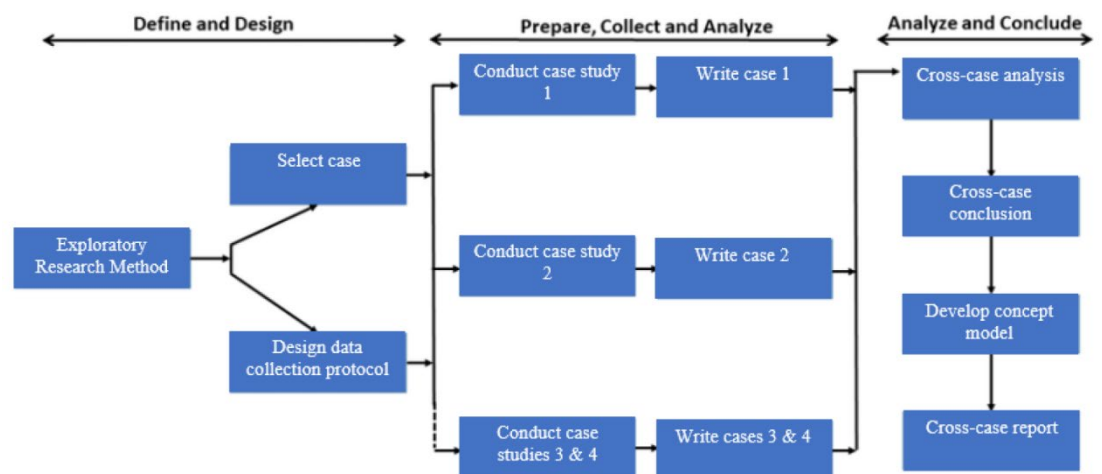
The decision to adopt a multiple-case holistic design is rooted in several key considerations:

- 1) **Diverse perspectives:** The ICT reseller industry in Malaysia is vast and varied. The research can capture a broader spectrum of experiences, challenges, and strategies by examining multiple cases, ensuring a more comprehensive understanding of the industry landscape (Yin, 2003)
- 2) **Enhanced validity:** Multiple cases provide the opportunity for cross-case synthesis, which can validate or challenge findings from individual cases. Yin (2003) suggests that this replication logic strengthens the research's external validity.
- 3) **Theoretical insights:** Theoretical replication allows for predicting contrasting results for predictable reasons (Yin, 2003), which will be

invaluable in building or testing theories central to this research’s aim of establishing a BMI framework.

- 4) Depth and breadth: While the holistic approach ensures depth by examining the entirety of the ICT reseller, the multiple-case design ensures breadth by capturing variations across different entities (Yin, 2003).
- 5) Generalizability: While generalizability is not the primary goal in qualitative research, insights from multiple cases offer a more generalized understanding of the broader industry, making findings applicable to a wider audience (Yin, 2003).

In conclusion, the multiple-case holistic design aligns with the research objectives, ensuring a rigorous, comprehensive and insightful exploration of the ICT reseller industry in Malaysia. Figure 3.1 Type 3 – Multiple Case Design Source: Yin (2018).



**Figure 3.1 Type 3 – Multiple Case Design Source: Yin (2018)**

### 3.4.3 Sampling Design

As previously stated, the primary goal of this research is to develop a BMI framework to support the long-term sustainability of ICT resellers based in Kuala Lumpur, Malaysia. To achieve this, the research employs a multi-case study design, where the sample must share the same characteristics across all cases to ensure consistency and comparability (Farquhar 2012; Yin 2003). The research focuses on twelve Malaysian ICT resellers that meet specific criteria, ensuring they represent the target population and contribute meaningful insights.

#### A. Operational duration:

- ICT resellers should have been in operation for at least five years. This ensures that the resellers have enough experience and have faced various challenges, especially during the COVID-19 pandemic.

#### B. Size of business :

- Sales turnover of less than RM20 million
- Employing less than 75 full-time employees.

These criteria align the sample with Malaysia's definition of SMEs and ensure the research is focused on businesses facing challenges typical of smaller firms in the ICT sector.

#### C. Geographical location:

- The ICT resellers' headquarters should be located in Kuala Lumpur, or they should have a significant operational presence there. Kuala Lumpur serves as a central hub for ICT activities and is home to the offices of most IT principals, making it the ideal region to focus on for this study.

#### D. Willingness to participate:

- The resellers should be willing to share detailed information about their challenges, strategies and business models, which is crucial for the depth and richness of the data

In this study, purposive sampling is used. According to Campbell et al. (2020) and Palinkas et al. (2015), purposive sampling is particularly useful in case study research, as it helps in selecting cases that provide rich and informative data. Purposive sampling allows researchers to choose participants who can provide in-depth insights relevant to the research objectives. In this context, the focus is on describing events and developing theories based on the collected data. This study aims for analytical generalization rather than statistical generalization, which is typical of qualitative research. This means that the findings from the cases will be connected to broader theoretical propositions, allowing the evidence collected to contribute to the development of theory (Yin, 2018). Theoretical insights result from careful analysis of the experiences and strategies of the selected ICT reseller SMEs, leading to a comprehensive understanding of the sector's business sustainability challenges.

By selecting respondents who fit the described criteria, the research ensures that the sample provides valuable insights into the sustainability strategies of ICT reseller SMEs, addressing the objectives of the study.

### **3.5 Instrumentation**

Employing gear to capture valuable and trustworthy data for the investigation is crucial. According to Paelke et al. (2018), the careful selection of instruments parallels transforming real-world aspects into measurable values that



can be analysed with precision. Ai et al. (2019) further emphasise the importance of precise instruments in qualitative research for obtaining accurate, empirical data that can provide meaningful insights into the subject matter.

This section discusses the qualitative instruments employed in this study. Although this study used a qualitative research approach that focuses on the semi-structured interview, the instrumentation developed can be divided into three categories. These sections were created in accordance with the study's specific research questions and objectives.

The first section of the questionnaire contains an opening statement for the respondents as well as a few demographic questions. Demographic data, according to Welsh (2002), indicates whether the individuals in a study represent the general population. Among the demographic questions are (i) age, (ii) gender, (iii) highest academic credentials, (iv) type of ICT service provided, and (v) year of business experience.

The second section focused on Research Question 1 (RQ1), which seeks to understand the challenges ICT reseller SMEs in Malaysia face in sustaining their businesses. It is meant to elicit responses on the respondents' internal operational, financial, and strategic difficulties encountered on external factors such as market dynamics and technological trends.

The third section addressed Research Question 2 (RQ2), which aimed to identify the key BMI elements contributing to the sustainability of ICT resellers. The questions explored strategies and practices that participants have implemented or are considering in order to enhance business sustainability. This section also delved into how ICT resellers manage resources, stakeholder relationships, and innovation in response to changing market conditions.

In conclusion, the semi-structured interview format was chosen for its ability to provide depth and flexibility while ensuring that all relevant areas were thoroughly explored. This approach allowed the research to capture insights into how ICT resellers in Malaysia navigate their unique business challenges and implement BMI strategies for long-term sustainability.

### **3.6 Data Collection**

Following the research design, the data collection method was selected. This technique involves contacting relevant sources and gathering information from them. Patton (2002) argues that it is impossible to provide rigid criteria for data collection and technique selection in evaluation. This allows the study to pick and organise the optimal data collection strategy. This study intended to collect data in June 2023, utilising a semi-structured interview and the instruments described in the previous section. Semi-structured interviews are structured according to an interview guide, which facilitates a more methodical and thorough interview. It also guarantees optimal data capture during the duration of an interview (Jamshed, 2014).

Also, according to Jamshed (2014), the effectiveness of the interview is essential for more efficient data collection. DeJonckheere and Vaughn (2019) noted that a relative focus and practice on facilitation skills are essential in a semi-structured interview, including (i) defining the scope and objective of the research, (ii) identifying the respondents, (iii) considering ethical issues; (iv) generating the interview guide; (v) establishing reliability and affinity; (vi) data analysis; (vii) demonstrating the research reliability; and (viii) demonstrating the results.

According to Ranney et al. (2015), a number of methods are required to perform reliable and meaningful qualitative research that is interview-based. Email invitations to the interview session were sent to the ICT reseller SMEs. After obtaining the respondents' consent to participate, a second e-mail containing the time and date arrangements was sent. The interviews were transcribed into the transcript, which then be reviewed by the selected respondents. Notable is the fact that the confidential information gleaned from this interview will be used strictly for the purpose of this study.

### **3.7 Case Study Protocol**

This case study protocol follows the guidelines from (Yin, 2018), providing a clear framework to ensure consistency and rigour in case study research. It outlines objectives, research questions, data collection methods, and analysis procedures. The protocol also incorporates measures to enhance validity and reliability, guiding the study of ICT reseller SMEs with a structured approach. The complete protocol is included in the appendix for easy reference and alignment with Yin's methodology.

#### **3.7.1 Approaching the Respondents**

In order to gather the relevant insights to fulfil the research objectives of this research, the study targeted respondents from Malaysian ICT reseller SMEs with headquarters located in Kuala Lumpur, which serves as a hub for the ICT sector. A total of 12 ICT reseller SMEs were approached, each selected based on specific criteria to ensure they align with the research objectives. The selection criteria for respondents are as follows: (i) they must have been in operation for a minimum of five years, and (ii) they should have a sales turnover of less than RM20

million or employ fewer than 75 full-time employees. As part of the ethical research practices and transparency, the researcher provided each respondent with an informed consent form before participation, clearly outlining the purpose of the study, their rights as participants, and how the data will be used. Additionally, an interview protocol was shared with each respondent, offering a structured outline of the topics to be covered during the interviews, ensuring consistency while allowing for the flexibility needed in a qualitative research approach.

### **3.7.2 Arranging Interviews**

After getting consent from the ICT reseller SMEs to voluntarily be the respondents, the researcher arranged the interview session with each of them individually. The researcher sought their approval for the interview session's date, time, and place.

### **3.7.3 Conducting Interviews**

The interview sessions were based on the date, time, and place agreed upon by the respondents. Besides, as stated in the informed consent form, permission had been sought to record the interview session using an audio recorder and field notes. The purpose of recording the audio and taking field notes is to help with transcription for data collection and analysis. Therefore, the study used both the audio recorder and field notes available during the session. The study also ensured the interview location is free from any noise that could disrupt the audio recording.

### **3.7.4 Transcribing**

After the interview sessions were completed, they were then transcribed into audio. In other words, this study reproduced the audio into the written text. In this process, the data was transcribed to an appropriate level of detail and were checked against the audio recording for accuracy.

### 3.7.5 Data Analysis

The analysis technique is a critical component of any qualitative study, and thematic analysis is used in this study. This is the trending method introduced by Braun and Clarke (2006) for qualitative data analysis. Thematic analysis, they said, is the act of detecting, analysing, and reporting on data patterns referred to as themes. As a result, the data analysis followed Braun and Clarke's six-phase framework for theme analysis, as shown in Figure 3.2.

In addition, this study utilised the Atlas.ti software to manage the abundance of qualitative data. There were a few advantages to using the software. Firstly, adopting this software facilitated the study's data management. Secondly, it facilitated the management of concepts via data categories or nodes. Thirdly, it facilitated the creation of a query database from which all answers to queries may be retrieved. Fourthly, it facilitated the development of a data-driven model. By utilising the contents of the qualitative database, this study can promptly present its findings (Bazeley and Jackson, 2013).



**Figure 3.2 Thematic Analysis's Phases (Source: (Braun and Clarke, 2006))**

To ensure the validity and reliability of the findings, synthesizing the categories and themes is crucial for enhancing the generalizability and representativeness of the proposed BMI framework. As part of the comparative findings process, cross-case analysis was employed to determine empirical generalizability and strengthen the theoretical framework for this research (Tsang, 2014). Additionally, cross-case analysis was conducted as a triangulation technique

to ensure the rigour of data collection and the robustness of each case study. Given that the cases were carefully selected based on specific criteria, cross-case analysis helped identify patterns and connections among elements within each case. This approach enabled the examination of how core variables interact, supporting or challenging the findings and validating the proposed BMI framework for sustainable growth in the ICT reseller sector.

### **3.8 Ethical Concerns and Qualitative Reliability**

This research posed no ethical risk to respondents or their businesses. Before the semi-structured interview, this study assured respondents that their identity and business information would remain confidential. This study took precautions to protect the privacy of respondents' information. According to Neuman (2014), this is an ethical precaution for research subjects, as it ensures the anonymity of study data and conceals them from the general public. In other words, the interview data was obtained only for study purposes, and the respondents' identities remain confidential. The accurate presentation of information also demonstrates an ethical concern. In other words, this study will prevent the dissemination of erroneous information and biased representations of the primary data findings.

Then, Bryman and Bell (2011) emphasised the significance of reliability in determining and assessing the quality of qualitative research. Therefore, during the data analysis phase, two qualitative dependability criteria were employed. First, this study examined the consistency of audio recordings and transcripts for transcription errors. Second, the coding will be revised to increase its accuracy. It is crucial that the meaning of the codes does not alter throughout coding.

### **3.9 Conclusion**

This chapter details the research methodology that will be used to answer all research questions. The subsequent chapter summarises and discusses the research findings using the methodology described in this chapter.

## **CHAPTER 4**

### **RESEARCH FINDINGS**

#### **4.1 Introduction**

This chapter presents the findings derived from the qualitative research conducted on the ICT reseller SMEs in Malaysia. This chapter focuses on analysing the data collected and structured around the core themes of business sustainability and BMI, finding the answers for the research questions.

#### **4.2 Response Rate from the Respondents**

In conducting this research, the respondents' response rate has been recorded for two purposes. The first is to observe the number and pattern of respondents' participation, and the second is to know when the data saturation of the study is achieved. The response rate from the ICT reseller in this study is acceptable. Initially, 15 ICT resellers who fulfilled the criteria were proposed through both purposive and snowball sampling techniques. However, three of them refused to participate due to their tight schedule and time constraints. Due to this situation, only twelve ICT participants were counted as respondents. The data saturation is reached after reviewing their feedback.

#### **4.3 The Demographic Profiles of the Respondents (ICT Reseller SMEs)**

This section presents an overview of the demographic characteristics of the respondents involved in this study. The respondents identified as R1 through R12, represent a diverse range of ICT reseller SMEs operating within Malaysia. The demographic profiles encompass various aspects such as respondent role and years of experience, company size, years in operation, market segments served, key



business activities, performance of the company before and after the pandemic, partnership status or accreditation with the principals and their identity in the market. The inclusion of these demographic details aims to provide a comprehensive understanding of the context within which these ICT reseller SMEs operate. This information is crucial for examining the challenges they face, identifying the elements of BMI that contribute to their sustainability, and ultimately recommending a BMI framework tailored to enhance their sustainable growth.

#### **4.3.1 Respondent 1 (R1)**

The company was founded by the interviewee, R1, who is the founder and director of the company. It has been in existence for almost 20 years. The company is a system integrator in the field of information technology, also known as ICT in Malaysia. They specialise in handling infrastructures such as servers, storage, client machines, networking, software licenses, security, data management, and data analytics. The company has approximately 33 to 35 employees, including those under their own payroll and outsourced staff. The organisational chart of the company is relatively lean. The interviewee is at the top, responsible for setting the company's direction and overseeing all business operations. There is a sales team, which is further divided into three teams: one for system integration and infrastructure, one for security, and one for data analytics. The company also has a finance department to handle all operational matters.

In terms of performance, the company has sustained its business for the past three years, including before, during, and after the pandemic. The revenue has been quite flat but profitability has increased tremendously as they transformed their business into more services and value-added solutions to the end user. The company sells its own services, not products. Its value proposition is offering Security

Operation Centres (SOC) as a managed service. The company has a team that manages customers' security events 24x7, providing peace of mind and handling all security activities for them. They work closely with various principals or vendors in the industry. Some of the key partners include Dell, HPE, Microsoft, Vmware, Cohesity, and Veeam. The company is considered a focused partner for these vendors.

#### **4.3.2 Respondent 2 (R2)**

R2 is the company's business development director. R2 has been in the IT industry since 2003, accumulating almost 20 years of experience. However, R2 did not build the company but was invited to join in 2012 by one of the partners. The company itself was incorporated in 2007. The company is a system integrator and their main business activities revolve around providing IT solutions to corporate clients. They focus on hardware and software application integration, packaging them together as solutions for their customers. They also offer services in addition to the hardware and software solutions. In terms of industry, the company primarily targets SMEs, SMI (Small and Medium Industries), and some corporate clients. They do not currently target the Financial Services Industry (FSI) as it requires a higher skill set and larger financial background and team.

The company's organisational chart consists of a CEO overseeing the entire company. R2 is responsible for business development, sales, and marketing. There is also a technical director who handles technical matters. Under the technical director, a pre and post-sales team handles pre-sales and post-sales matters. Additionally, there are a few sales personnel under R2. The company has around 10+ employees, focusing more on technical and service delivery roles than sales.

They prioritize continuous learning for their staff to keep up with the ever-evolving IT industry.

In terms of the company's performance, they experienced positive year-on-year growth of around 10-15% before the pandemic. During the pandemic, they achieved single-digit growth despite the challenges posed by lockdowns. They were able to communicate with clients and work remotely during the lockdown periods. Regarding partnerships, the company maintain good relationships and seeks help from principals and distributors when they need more information about specific products for their clients. They work closely with principals and distributors to provide the best solutions to their customers.

#### **4.3.3 Respondent 3 (R3)**

The respondent, R3 is the CEO and founder of the company. R3 has been involved in the company for ten years before it was officially established eight years ago. As the CEO, R3 sets the general directions for the company and ensures that it aligns with the long-term goals. The company operates in the ICT industry, which is constantly evolving. The company's key business activities include cloud consulting and DevOps consulting. They provide services to clients by understanding their requirements and offering solutions rather than just selling products. The company's main product is its services, which generate revenue. They also work closely with ICT principals and other resellers by complementing their services. The company has approximately 20 employees, 80% of whom are technical. The company's organisational chart is relatively lean, with four pillars:- sales, presales, delivery and support, with some double hatting for efficiency.

The company has experienced 100% positive revenue growth and is profitable. They have continued to hire employees even during the pandemic, indicating a positive growth trend. The company strives to provide reliable services and keeps up with the latest technical knowledge to sustain its growth. The company has partnerships and accreditations with various principals in the industry. Some of the key partners mentioned are VMware, Red Hat, Microsoft, and Dell. They also established relationships with open-source software principals like Confluent, Jira, and GitHub. These partnerships allow the company to offer its clients a wide range of services and products.

#### **4.3.4 Respondent 4 (R4)**

The respondent, R4, is the CEO of the company. R4 is responsible for making decisions and overseeing the operations of the organisation. R4 has approximately 20 years of experience in the company and around 27-28 years of experience overall. R2 and three of his ex-colleagues founded the company. It has been in existence for 20 years. They originally started as a software and hardware provider but has since evolved into a more services-oriented company. They are the system integrator provider that offers virtualization, cloud, and cybersecurity services. They primarily focus on industries such as the financial services industry (FSI) and commercial sectors. Their organisational hierarchy consists of three levels of management with approximately 60 employees, 60% of whom are skewed on technical aspects.

In terms of performance, the company has been experiencing double-digit growth since 2019, even during the pandemic. They captured the wave of demand for solutions such as virtual desktops during the pandemic, contributing to their growth. The company has several partnerships and accreditations with principals.

Some of their major partnerships include VMware (principal status), Trend Micro (gold status), Veeam (gold status), and Dell (platinum status). These partnerships are considered important for the company as they provide products and solutions to sell. This local company also has its own proprietary cloud solution in the market that is competing with the global hyperscalers (AWS, Azure, and Google).

One of the main challenges faced by R4 is the increasing dominance of cloud services and the resulting pressure on margins. To address this challenge, the company has moved towards a more service-oriented business model, offering managed services such as cloud management and consultation. By providing these value-added services, R4 can optimize its profitability and cover losses from lower product margins.

#### **4.3.5 Respondent 5 (R5)**

Respondent R5 is the original Group Director and the company's co-founder, a role he has held for approximately nine years. He is instrumental in overseeing the operations and strategic direction of the company's branches in Malaysia, Thailand, and Indonesia. His responsibilities encompass fostering business growth, achieving sales targets, and ensuring operational resilience. R5 and his fellow founders were motivated to establish the company about a decade ago, at a time when cloud technologies were beginning to alter the IT landscape significantly. They recognized an emerging need for enhanced security measures in the cloud domain, which led to the inception of their IT firm specializing in cloud security. The company operates within the IT industry, primarily focusing on providing managed security services and customized security solutions using their proprietary products. They cater to the specific needs of their clients by offering

additional products, particularly in automation and comprehensive digital operations services, including implementations and support.

The company hierarchy model is with Managing Directors (MDs) in each operational country—Malaysia, Thailand, and Indonesia—who implement strategies and replicate successful practices across the branches. The organisational structure also encompasses departments dedicated to HR, finance, sales and marketing, digital operations, and service delivery. Altogether, the company employs around 60 to 70 people across its locations. The company is already experiencing a surge in business growth, with them continuously innovating to stay abreast of new technological trends even before the onset of COVID-19. The pandemic further accentuated the shift towards cloud technologies, fortuitously positioning the company to capitalize on this trend. They experienced substantial growth during this period, particularly in capturing new customers as more businesses transitioned online. This was especially true for their operations in Thailand, which were strategically established just before the pandemic hit.

The company maintains high-tier partnerships and accreditation with several U.S.-based cloud security firms and has been nominated as a channel partner for Southeast Asia. To address their need for technically skilled personnel, they have streamlined their hiring process, focusing on recruiting and training young interns and engineers. This approach is aimed at ensuring a continuous and efficient flow of skilled staff, thereby maintaining the sustainability of their human resources and the company's overall operational capacity.

#### **4.3.6 Respondent 6 (R6)**

Respondent R6 is involved in the company's business development. He engages with customers, provides solutions, generates leads, and handles sales. R6 is also part of the associate share decision-making in the company and is involved in setting up the company's strategy. R6 has approximately 17 years of experience in the industry. The company was founded in 2012, and R6 and his team bought the company in 2018 as part of the strategic reason for tender participation. They are a group of IT professionals from MNC backgrounds. The organisation primarily operates in the government, banking, and telecommunications sectors. The company has a flat organisational structure. The top management includes the CEO, CTO, and R6 in business development. They also have a business operations admin team, two inside sales representatives, and technical staff in the infrastructure and software teams. The company currently has around 15 employees.

In terms of performance, the company has been managing at a profit state since its establishment. Even during the COVID-19 pandemic, the company remained profitable. They experienced slower growth due to their focus on government contracts and the impact of COVID-19 on those sectors. However, there hasn't been significant growth in recent years as they are still developing their customer base. They have partnerships and accreditations with various principals, including Google, Cisco, HP, Red Hat, and IBM. They are Google certified and focus on being Google partners.

The company is currently self-funded but works with fund houses to finance certain projects. They face financial challenges, especially in managing taxation. They apply for MSC (Multimedia Super Corridor) Company status for tax exemptions to address this issue. The company faces challenges related to the IT industry's shift towards cloud services and hardware delivery issues due to global

chip shortages and embargoes between China and the US. To adapt, the company focuses on service-oriented and cloud-based business models while emphasising customization in software development. They are also working with smaller telcos as service partners to grow together.

The company believes that delivering good work and having the right skill set and knowledge will attract customers. They also see opportunities to work with smaller telcos that are willing to collaborate with more agile and flat organisations. The company has an inventory system to maintain contracts and track product expiration dates, which helps them have better visibility of existing customers. They participate in the Sustainability SGD assessment and aim to be part of the sustainability ecosystem. The company's value proposition is to offer turnkey projects, positioning itself to accept the SLA (Service Level Agreement) for entire projects, including hardware infrastructure and business applications.

#### **4.3.7 Respondent 7 (R7)**

R7 is the managing director and decision-maker. The company has grown from a small startup to an organisation with approximately 70 employees. Their primary office are in Kuching, Sarawak, Kuala Lumpur and Bintulu. R7 founded the company with a few friends who ventured into entrepreneurship. R7's company started with a flat organisational structure; it has evolved to have a hierarchical system as the company has grown. The current structure consists of three main pillars: sales and presales, support, and operation teams. The operation team is further divided into HR, finance, and logistics.

Their company positions itself as a valued partner, offering education, consulting, and support services. The company specialises in bringing new and



innovative IT solutions to the market, focusing on tier-two brands that provide cost savings and performance improvements for local enterprises and governments. It has built its own in-house skills to offer complete solutions, including presales support, integration, and Tier 1 support. The company has made a name for itself in the market by offering solutions such as WAN networking, WAN optimization, storage, and backup solutions. Their partnership with Huawei as a value-added partner allows them to provide end-to-end data centre solutions.

R7's company has grown to a 15-18 million company, which can be attributed to its ability to adapt and innovate and its focus on building strong relationships with its clients and technology partners.

#### **4.3.8 Respondent 8 (R8)**

R8 is the managing director and decision-maker. Together with another partner, they are responsible for making decisions and managing the company. Before entering the IT industry 26 years ago, R8 had seven years of experience in the corporate banking industry, which has helped him run the company as an accountant rather than an IT personnel. The company started 17 years ago as a small setup providing services to the public sector and grew rapidly due to preventive maintenance activities for thousands of pieces of equipment. They provide extensive services, including networking, hardware, software, applications, and cloud solutions. The company initially had a flat organisation chart but has since grown to 32 employees across four offices. The hierarchy now consists of the managing director, executive director, and various departments, including accounts and finance, administration, technical, sales, and business development.

The COVID-19 pandemic has dampened the company's plans, but they have adapted by focusing on smaller, targeted sales and services. Since then, the growth has shown positive signs, with a quarter-to-quarter increase in strength and positive growth from 2021 until now. The company has been focusing on strengthening its operations and commercial activities and has shown positive results. Additionally, measures were taken to scrutinize the financial model, evaluate resources, and make decisions regarding manpower and salary adjustments to ensure sustainability and the ability to remain a going concern. The company also acknowledges the challenges in the IT industry, where performance is closely tied to tender and sebut harga results.

They have established strong relationships with major principles such as Lenovo, Acer, and HP and also provide networking solutions, primarily with second-tier brands like Ruijie. The company acknowledges that the role of ICT resellers may be diminishing due to cloud computing and other factors. However, they believe their value remains strong in the public sector, where services are always needed.

#### **4.3.9 Respondent 9 (R9)**

R9 is a seasoned professional with over 25 years of experience in the industry and founded the company in 2020, focusing on public sectors, government and GLC, with a strong emphasis on service-oriented proven products such as smart city, middleware, hardware components, hyper-converged. The company offers services oriented around proven products like Smart City, Middleware, Hardware components, and hyperconverged technology. They also provide consultancy services, particularly in enterprise architecture, and other services like Project Management Services. Their primary focus is on public sectors, including government entities and government-linked companies. The company's

organisational chart comprises three major pillars: Research & Development cum Business Strategic Development, Projects Division, and Admin and Finance.

The company's performance has been impacted by the challenges posed by COVID-19, resulting in stagnant growth and profitability issues. Currently, the company's profitability is on a positive trend. R9's company has no accreditation with principals to better serve clients and exploit his contacts and their requirements.

#### **4.3.10 Respondent 10 (R10)**

R10 is the company's founder, which started just before the COVID-19 pandemic. With over 25 years of experience in the industry, he serves as the primary decision-maker. The company is involved in various aspects of ICT sectors, including infrastructure networking, data centre solutions, direct internet access supply, traditional buy and sell activities and subscription services. R10's company also support multiple businesses, separating them to avoid having all operations under one basket. This allows them to specialise in specific areas, such as software development, scanner, and chain saw outlet support. The organisational structure is lean, with R10 at the helm, supported by his finance, business development, and sales teams. Including consortium partners, the group comprises about five employees, while the support team consists of 12 employees.

The company initially struggled due to the pandemic; however, they managed to secure significant customers for video conferencing, call centre and back-end office PABX telephony solutions. Even after the pandemic, they still experienced a slowdown in sales and revenue as many companies had already

invested heavily in solutions during the MCO period and focused on cost-cutting measures.

R10's company has partnerships with several major players in the industry, including Maxis, Red Tone, Orient Telecom, Cisco, Netapp, HPE, Dell, Asus, Trellix, Trustwave, Nexusguard, Kaspersky, Veritas and Veeam. R10 envisioned for his company to provide end-to-end solutions to the customer, which includes services and consultancy rather than just hardware sales

#### **4.3.11 Respondent 11 (R11)**

R11 is the general manager and decision-maker responsible for overseeing the company's operations, including skills, project deliverables, services solutions, HR and admin, and finance. The company was founded in 2019 by R11 and her two partners. R11 has been involved in the business since 2020, bringing over 24 years of experience in the IT industry. The company started with IT infrastructure services and later expanded to data analytics, data security, data protection, and IoT, which target FSI, utility, education, transportation, and the public sector. The company has a total of 16 employees, including three in sales and marketing, four in solutions and services, two in project management, three in managed services, one in HR and admin, and one in finance.

The company has shown significant growth since its inception, with a year-on-year increase of over 20% in 2020 and around 30% in both 2021 and 2022. The MCO and pandemic did not significantly impact the company's performance, as it maintained profitability and continued attracting new customers. The company's value proposition is based on consulting services, providing high-quality services, and value-added services due to the skill set and expertise of its resources. The

company aims to differentiate itself from other system integrators by having subject matter experts in specific areas. The team is currently looking at a five-year goal, with the aim of achieving revenue close to 20 million per year within the next three years.

#### **4.3.12 Respondent 12 (R12)**

R12 co-founded the company 16 years ago with his partner, and they have clearly defined their job roles: R12, having 23 years of experience in the industry, manages the sales and operational aspects, while his partner handles the technical side. The company specialises in IT security, offering a range of cybersecurity services, products, system integration, and more. They also manage IT infrastructure, partnering with major players like HP, Lenovo, and Dell to implement basic endpoint devices, laptops, PC servers, and networking products. Additionally, the company is focused on green IT, offering solutions to help organisations utilize green IT practices. The company's primary market focus is on enterprise-level clients, including government entities, government-linked companies (GLC), multinational corporations (MNC), and manufacturing industries.

The company has experienced exponential growth yearly, except for a 35% dip in revenue in 2020 due to the Covid-19 pandemic. However, they have rebounded and seen a significant increase in performance, with numbers 150% higher compared to three years ago. The company is a premier partner of Splunk, one of only two companies in Malaysia that can implement the SIEM solution. They also have about five administrators and a team skilled in handling HCI, virtual servers, and networking products like Aruba, Sangfor, and Cisco. The team has

built up their skillset in software solutions such as ESET, which they have carried for the past 15 years.

The company is a successful ICT firm specializing in IT security, with a focus on enterprise-level clients. They face challenges due to decreasing margins and potential competition from principals but plan to sustain their business by focusing on services and expanding into different markets. They also prioritize innovation and talent development to remain competitive in the industry.

#### **4.4 The Challenges Experienced by the ICT Reseller SMEs in Sustaining their Business in Malaysia**

This section provides an in-depth analysis of the challenges ICT resellers encounter in Malaysia as they work to maintain and grow their businesses. The interviews identified thirteen challenges and categorised critical challenges under four main themes: Market dynamics and competition, technological trends, customer and market needs, and operational efficiency challenges.

##### **4.4.1 Market Dynamics and Competition**

###### **4.4.1.1 Competition from Hardware Vendors**

The respondents, R1 and R10, noted increasing competition from hardware vendors who bundle software services with their products. This bundling creates challenges for ICT resellers, as standalone service providers may struggle to compete with the comprehensive solutions offered by hardware vendors, forcing them to rethink their strategies.

<b>Respondent</b>	<b>Verbatim Quote</b>
R1	"And the hardware vendor also... lump in all the software services into their bundle"

R10	"A lot of principals (hardware) is talking direct to the customer"
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#### 4.4.1.2 Direct Selling from Principal to Customers

R2, R3, R10 and R12 noted a significant shift in the ICT market, where principals are increasingly bypassing resellers and distributors to sell directly to customers. R2 attributed this trend to digital transformation and SaaS models, making direct sales more feasible and profitable for principals, which compels resellers to build personal rapport with clients. R3 compared this to the automotive industry, where direct sales have converted distributors into resellers. R10 highlighted the challenge of competing with distributors' extended SI arms, often resulting in principals opting for direct sales in large deals. R12 pointed out that cloud services and licensing further threaten resellers' roles, with businesses increasingly sourcing ICT products directly from digital marketplaces. While local government interventions safeguard public sector deals, R12 expressed concerns about the long-term sustainability of this model.

Respondent	Verbatim Quote
R2	"...most of the principal...selling direct... is the trend...software as a service... subscribe the Microsoft 360 via their website or without going through us. It's the same price"
R3	"Principals are also taking back some of the distribution ... car companies now are selling direct ... distributors have become resellers"
R10	"...distributor go direct with their SI arm, even principal itself...can go direct to the customer with sizable project."
R12	"...principal are going to sell direct to the customers...embarking into Cloud, cloud licensing... marketplace ... Honestly... we got to see how to move... Malaysian government...draw a line... but for how long?"

#### 4.4.1.3 Intensive Competition Impacting Profit Margins

ICT resellers are facing significant challenges due to shrinking profit margins driven by intense competition. Respondents shared that the market is

saturated, and in order to secure projects, they are often forced to reduce their margins. R1 highlighted the pressure to cut prices to win projects, while R7 emphasised how principals control reseller margins, making it difficult to grow or survive in the market.

R8 and R12 noted that numerous competitors have led to a drastic decline in margins, with companies barely making a profit after covering project costs. Additionally, R6 discussed how acquisitions of local resellers by telcos have impacted their flexibility and business models, forcing them to move away from low-margin deals.

R10 observed that direct engagements between principals and customers also erode margins and shrink the market space for resellers, who now have to offer value-added services to remain relevant.

Respondent	Verbatim Quote
R1	"People who have a better pricing will won the project. So, you also need to cut down your margin to win the project."
R6	"...Telco acquired local SI...The flexibility in terms of management, decisions is no longer straightforward. Now, they'll no longer been able to pursue a low margin busines"
R7	"Let's say Dell or HP, they have so many resellers, And It's very much control by the account manager"
R8	"The growth of our company is very much depending on the Rfq and its' sebut harga...The margins is diminishing. As a result of stiff competition... too many providers...competition in Klang Valley"
R10	"A lot of principals is talking direct to the customer ... And in terms of margin-wise also, we are very struggle into that ... we still can work with customer on end to end solution and also integration which is most of the customers, still not so comfortable working principal direct"
R12	"it's so controlled...by the principal, or the middleman - distributor whereby SI or resellers are just getting what 10 to 15% ... public sector, ...close to 5000 easily"



#### 4.4.1.4 Dependency on Principals

ICT resellers face significant challenges due to their dependency on principals, which include requirements for certification, training, support, and constrained profit margins. R1 emphasised the necessity of maintaining strong relationships with principals and investing in staff training and certifications to access essential business tools. R2 and R3 highlighted that recognition and endorsement from principals are crucial for building client trust and business legitimacy, making official and unofficial accreditations a key factor for success.

R7 pointed out the vulnerability of smaller resellers without adequate principal support, emphasising the need to work with trusted principals to ensure sustainability. R9 discussed how principals control margins for resellers, prompting a shift towards service diversification and strategic partnerships to reduce dependency. R10 and R11 stressed the importance of networking and relationships with principals for generating leads and revenue, while R12 underscored the principal's control over pricing and the growing threat of direct sales to customers.

The respondents' experiences show a complicated relationship between ICT resellers and principals. While working with principals gives resellers the support and validation they need, it also makes them vulnerable, especially as the market changes. Resellers must maintain good relationships with principals while using strategies like diversification and resilience to stay competitive.

Respondent	Verbatim Quote
R1	"without the relationship to the principal ... we send our staff for training ... invest by our own ... Without the certification, they can't access business tools "
R2	"Client will see us as ... registered partner or ... authorised partner of a certain principal ... more convinced on that as well "
R3	"I take accreditations ... official recognition ... and the endorsement from the principal does help"

Respondent	Verbatim Quote
R7	"very much dependent on principals ... if the principal is not supportive ... difficult for the smaller players to survive "
R9	"Add up more value to my deliverables ... engage partners and explore ... principals locking the margin
R10	"need that network to help us to get the view ... need support from principal to get more revenue "
R11	"Engagement with the principals is very, very important ... on the lead generation but we also on the solution support"
R12	"Controlled either, by the principal, or the middleman ... principal are going to sell direct to the customers "

#### 4.4.2 Technological Trends

##### 4.4.2.1 Cloud Innovation Wave

The rise of cloud computing has significantly impacted ICT reseller SMEs, as highlighted by most respondents. Most of them observed a shift in customer preferences towards cloud services due to their flexibility and scalability. R1 shared that cloud vendors are aggressively targeting the Southeast Asian market, with customers opting for cloud services to offload their workload. R3 and R5, emphasised the strong technical skills needed to adapt to this shift, particularly in hybrid solutions. R4 and R6 expressed concerns over shrinking margins due to dictated pricing models and stressed the importance of offering value-added services and software for survival.

R7 observed that, in the small and medium business (SMB) market, resellers are left with minimal opportunities to offer services beyond basic network support once customers migrate to the cloud. R8 noted that cloud solutions had eliminated manual processes, which had been their revenue source. R10 acknowledged that the shift to the cloud poses a significant threat, as it is primarily driven by principals, leaving resellers struggling to maintain relevance and profitability in this evolving landscape.

Respondent	Verbatim Quote
R1	"...cloud vendors right now is, aggressively targeting the South East market, that including Malaysia market ... the customer will rather leave some of the workload to the cloud"
R3	"on-prem cloud infrastructure... That's diminishing because of the hyperscalers...if you don't have enough sound skills, how are you going to cope with the advancement of these cloud players coming into, to eat into the on-prem pie"
R4	"selling cloud today... margin has been dictated...it's a big challenge for me "
R5	"Cloud actually eliminate a lot of challenges of physicals hardware, so they can actually, do not need partners to deliver hardware or installations"
R6	"changes because of the introduction of the cloud services in the industry... we need to add values in terms of services. in terms of software components or customization in order to get more margins"
R7	"if you are doing SMB...once the customer go to cloud, basically all you have is basically just supporting them in their network thing equipment, nothing else"
R8	"Cloud solution could actually kill a lot of manual thing that we have been doing on the ground"
R10	"Cloud solution, it might be a threat to us because if you're going to cloud, right, definitely, that will be a principal game. so, for us, as a reseller, basically we are losing out in that"

#### 4.4.2.2 Rapid Technological Evolutions

All the respondents acknowledged the rapid technological evolutions of IT business. R1 highlighted the evolution in ICT demands from the past to the present. Two decades ago, discussions around cloud computing or smart devices were non-existent, but they have become central to the ICT business, requiring continuous innovation. R3 highlighted the struggle to reskill employees who were trained on older technologies. R10 noted that many resellers are unprepared for these rapid technological shifts, affecting their ability to stay competitive. R11 shared the transition from hardware-based roles to software and cloud solutions, reflecting the broader industry trend toward solutions.

Respondent	Verbatim Quote
R1	"demand it's keep changing to the new things ... But at the current moment, people is talk about the cloud...so you have to innovate"
R3	"The only way this ICT can remain relevant long term is to keep learning"
R10	"...most of the company is not ready for that... we are not there yet, but we are following up... we will equip with the engineer skill set..."
R11	"the technology is keep changing, so we need to adopt...my experience pass over 10 over 20 years is all hardware. And recently...since 2018, I involved in software and also the cloud transformation"

#### 4.4.2.3 Facing Obsolescence of Traditional ICT Services

Both R5 and R8 acknowledged the rise of self-sufficient technologies, like cloud services and self-rectifying machines, which reduce the need for traditional ICT reseller services. R5 highlighted how cloud solutions eliminate the need for physical installations, as services can now scale remotely, diminishing the role of partners. R8 emphasised that while public sector users still require services due to their lack of technical expertise, technological advancements that allow systems to self-rectify have reduced the demand for traditional corrective maintenance services.

Respondent	Verbatim Quote
R5	"Cloud actually eliminate a lot of challenges of physicals hardware, so they can actually, do not need partners to deliver hardware or installations, which do not have a physical works. They can scale easily through remote, right. "
R8	" public sector ... services are always needed...they are not Tech savvy kind of people...diminish a bit in view of the technology enhancement in the sense that most of the machines are self rectifying the problem.The number of corrective maintenance called to our office. Is still there."

#### 4.4.3 Evolving Customer and Market Needs

##### 4.4.3.1 Evolving Consumer Behaviours

R9 highlighted the growing transparency in the market due to customers' increased access to information through platforms like Lazada and Shopee. This

has made the market more open, with consumers becoming more informed about pricing and trends. However, despite this access, R9 emphasised that the role of resellers and principals remains crucial in providing the necessary support, assurance, and collaboration that digital platforms alone cannot offer. The evolving customer behaviour now demands resellers to stay updated and knowledgeable, addressing complex queries while building trust through deeper engagement.

Respondent	Verbatim Quote
R9	"It just, they (customers) are having more openness in the market trend at the moment...the ability to get information over Internet, over lazada, shopee has been giving client the up-to-date information on what to expect from the real resellers and principals. So it's more open. It's more transparent and the role by reseller and principal still very much important to convince further."

#### 4.4.3.2 Imperative Shift Towards a Service-Oriented Approach

In the dynamic landscape of ICT resellers, shifting towards a service-oriented approach is not just a strategic choice but a necessary evolution. The majority of the respondents, R1, R2, R4, R6, R9, R10, and R12 provided the insights that the external challenges have mandated the shift. The emphasis on adding value through managed services, consultation, or specialised software solutions is a recurring theme and underscores the need for adaptability in business strategy. Still, the underlying motive remains in ensuring client satisfaction, maintaining profitability and staying relevant in a rapidly evolving industry. The other respondents with fewer obligations were R3, R5, R7, R8, and R11 as they started their business model incorporating services as part of their offerings to the customers.

Respondent	Verbatim Quote
R1	"value reseller, which really give the customer solutions... help end -user to solve their problem."
R2	"...technical and service delivery ... carry a heavy weight compare with the sales or the commercial"

Respondent	Verbatim Quote
R4	"That's how we manage the profitability to optimize whatever we lost, then we cover from the managed service portion. Starting with software and hardware. We moving out from there into more services oriented"
R6	"Service oriented base business is quite crucial, and Our skill set which also need to change into the cloud basis"
R9	"add up more value to my deliverables. I provide services which I do not have domain expert in, I engage partners"
R10	"we provide end to end solution and also consultancy to customer"
R12	"we ensure that our team are ready to support it. Are ready to implement the solution "

#### 4.4.4 Operational Inefficiencies

##### 4.4.4.1 Credit Line Limitation

R1, R2, and R12 shared the financial constraints experienced by ICT resellers, pointing out difficulties in obtaining higher credit lines from their authorized distributors or banks. Most ICT resellers are self-funded and rely on the credit facilities offered. The larger ICT resellers will have higher facilities. This financial bottleneck can hamper the ability of the ICT resellers to scale their operations, manage cash flows effectively, and adapt to market changes swiftly. Such credit limitations may restrict purchasing power, leading to operational inefficiencies and reduced competitiveness.

Respondent	Verbatim Quote
R1	"But there is a limit. Banks always like this. When there's a raining,...they will take away the umbrella "
R2	" : ...they have authorised distributor who are not willing to give us a more higher credit line "
R12	"the way they evaluate to give loans, funds or Facilities, sometimes it's ridiculous because they only give money to those who have money"

##### 4.4.4.2 Acquisition and Retention of Technical Expertise

Respondents acknowledged the difficulty of acquiring and retaining technical skills, particularly in data science and cybersecurity, due to high market

demand and attractive offers from larger firms. R1, R2, R3, R5, R7, R8 and R11 highlighted experiences of high turnover, staff diversification into other industries during the pandemic, and the ensuing difficulty in maintaining high service and project delivery standards due to the lack of consistent technical expertise. ICT resellers who cannot hire technical expertise will collaborate with other resellers. The retention of technical expertise stands out as a critical challenge in ensuring the sustainability of ICT resellers. The insights shared by the respondents depict an industry that requires substantial organisational strategies to cultivate and retain talent effectively.

Respondent	Verbatim Quote
R1	"demand on the, especially on data science is very demanding from the market. And also, very high pay"
R2	"they will tend to come and go, come and go. So this is also our internal challenge... We need to maintain the talent or the competent technical team in our company"
R3	"It's diminishing from a sense that the availability of good technical skills and retaining the skills is not happening ... Especially after COVID"
R5	"one of the most challenges is people, people tends to move. Or we try to retain people, the productivity for each person can be very different"
R7	"but initially was very tougher. previously we have a lot of high turnovers. There's kind of like a daily business"
R8	"it's not that we do not want to expand, but that is one difficult department, one department that is very difficult to get the right people "
R11	"the key financial challenges is to retain the resources, retain the talent"

#### 4.4.4.3 Extended Lead Times Impacting Deliverables

The respondent's statement shows extended lead times for acquiring from principals via distributors, especially for public sector projects. R8 highlighted the strict timelines in government contracts, which place companies following standard procurement processes, such as tenders and RFQs, at a disadvantage. Delays in product availability impact the ability to meet contractual deadlines, affecting incentives like early payment discounts and leading to financial consequences. This

cycle of extended lead times and missed deadlines hinders ICT resellers' ability to fulfil obligations and maintain financial stability.

Respondent	Verbatim Quote
R6	"challenges in terms of delivery hardware... chipsets oh, there are some Embargo happenings between China"
R8	"the lead time for us to get the stock from the principal via distributor either consuming too much time"

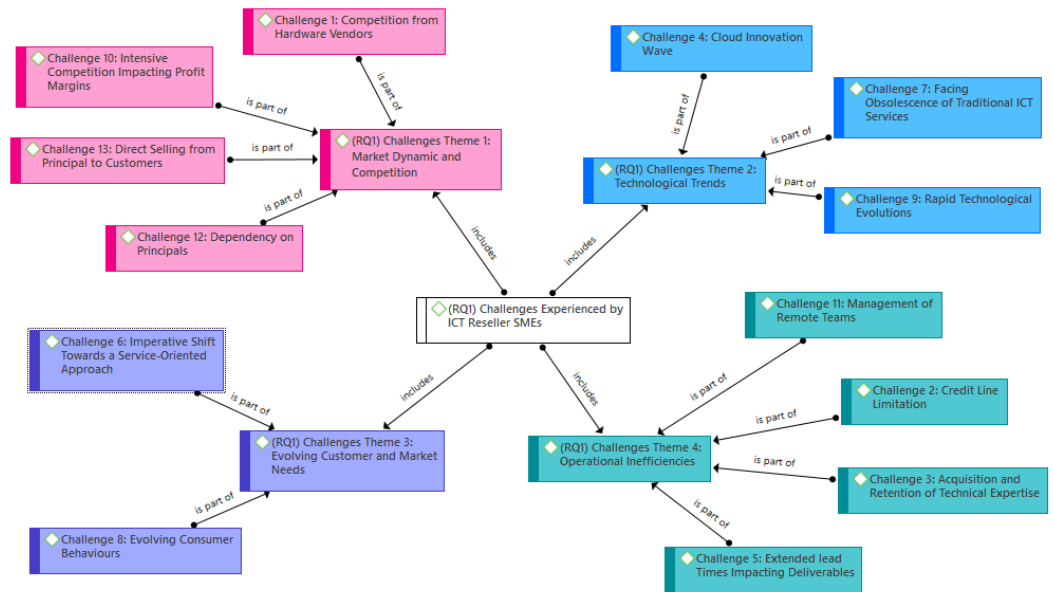
#### 4.4.4.4 Management of Remote Teams

R5 highlights the difficulties in managing smaller and newer setups across different countries, especially during the COVID-19 pandemic, which halted activities and left teams unprepared. R7 emphasises the logistical challenges in managing teams across multiple locations, requiring new offices to support various regions. Both responses highlight the need for agile strategies to manage remote teams effectively during disruptions, ensuring productivity and smooth operations across locations. However, the researcher believes these challenges are not limited to remote teams but also reflect broader organisational management issues, as indicated by the underlying message.

Respondent	Verbatim Quote
R5	"Indonesia ... set up before covid ... there's not much activities because we cannot visit ... not ready to take on the covid time ... people are leaving at that time so we are already too small compared to the others."
R7	"We have Kuching, KL and Bintulu ... supporting the whole state of Sarawak ... difficult for my team, to travel from Kuching ... we started a team in Bintulu as well as a small team"

Figure 4.1 shows the summary of the four main themes under the challenges the ICT Reseller SMEs faced.





**Figure 4.1 Summary View of the Challenges Experienced by ICT Reseller SMEs Using Atlas.ti**

## **4.5 Business Sustainability Initiatives**

This study identified 11 key business sustainability initiatives undertaken by ICT resellers over the past three years. These initiatives are directly linked to the challenges discussed in the previous (4.4) and represent strategic efforts to navigate market dynamics, technological trends, customer needs, and operational efficiency challenges. To enhance the validity and reliability of these findings, a triangulation approach was adopted by categorising both the challenges and business sustainability initiatives by the ICT reseller SMEs into four main themes. Using the same thematic structure to analyse challenges and solutions, this study strengthens the consistency and confirmability of the data interpretations. The following sections explore these initiatives in detail, categorised by the main themes of market dynamics and competition, technological trends, customer and market needs, and operational efficiency challenges.

### **4.5.1 Market Dynamics and Competition's Business Sustainability Initiatives**

This section examines the business sustainability initiatives related to market dynamics and competition, focusing on diversifying services and products, pricing flexibility, strategic partnership engagement, and establishing certified niche specialisations and identities. The insights presented here are drawn from detailed data and verbatim analysis of interviews conducted with ICT resellers, providing a comprehensive understanding of the strategies employed to navigate market competition and achieve long-term sustainability.

#### 4.5.1.1 Diversification of Services and Products

R1 highlights a shift from trading ICT products to offering value-added services, increasing margins through SLA-based offerings. R4 adapted to the pandemic wave by providing virtual desktop solutions and expanding managed services. R5 provided a consultative approach, identifying product weaknesses and offering complementary services to build customer loyalty. R6 addressed external challenges, such as chipset shortages, by focusing on cloud-based and service-oriented solutions. R7 pivoted towards software and related services, moving beyond hardware to capture higher margins. R10 focused on integrated solutions paired with consultancy to enhance its value proposition, while R12 capitalised on the cybersecurity wave by investing in new technologies and certifications to stay competitive.

Respondent	Verbatim Quote
R1	"The margin will be increased, ... transforming to more services and value-added solutions ... from the transactional base to the SLA base."
R4	"... captured the wave during the pandemic ... virtual desktop solutions ... move into more services ... to provide managed service "
R5	" ... add values to the customers ... see the weaknesses of each product ... complement in that sector ... protects our customers and continue to grow "
R6	"... add values in terms of services ... business landscape is a bit changes ... chipsets shortage ... develop Service oriented base business .. "
R7	"... go into some Software Solutions ... with the software solution, it comes with our services. "
R10	"... provide end to end solution and also integration ... SI, we provide more into value-added services ... provide the solution which is the gap solution ... "
R12	"... More requirements came into the cyber security space ... pick up new technology ... embark on Splunk ... "

#### 4.5.1.2 Pricing Flexibility

Half of the respondents emphasised pricing flexibility as a key business sustainability initiative. R1 mentioned margin flexibility by transitioning from transactional models to Service Level Agreements (SLA), aligning with customers'

desired value. R6 noted that smaller, agile companies can make quicker decisions and manage lower margins to win business, giving them an advantage over larger firms. R8 and R9 discussed the challenges of maintaining profit margins due to increased competition, technological changes, and shifting customer preferences, particularly with the rise of online sales and cloud solutions. R10 and R12 pointed out the necessity of focusing on value-added services to sustain growth with flexibility, even in a low-margin environment.

The verbatims underscore that pricing flexibility is critical for ICT resellers as they navigate shrinking profit margins and increased competition, allowing them to remain competitive while offering enhanced value to customers.

Respondent	Verbatim Quote
R1	"... cut down your margin to win the project... important thing is the SLA and also solution that you'll bring to them .So, we transform from the transactional base to the SLA base."
R6	"agile whereby you can decide selling at a lower margin"
R8	"The margins is diminishing. As a result of stiff competition. So too many providers... Because people can actually now get products, much cheaper from the source - Online...We are talking about the retail market"
R9	" So of course I also acknowledged that fact of the margin somehow, reseller, principals locking the margin for the reseller... Get more products, get more services at value and then provide the needs support to the end user together with the SI and the distributors as well "
R10	"Yes. And also it's value added services, which is also we have to do more with less margin"
R12	"We play in a different field, for us profitability is the key ... would work backwards how to make the profitability ... "

#### 4.5.1.3 Strategic Partnership Engagement

All the respondents have their business model highly intertwined with principal partners, and they have achieved various partner statuses such as standard, premium, gold, or platinum. R1, R4 and R7 emphasised the importance of partnering with different vendors and principals, allowing them to offer diverse products and services. This adaptability is key in meeting current market demands,

as highlighted by R1's focus on big data and R4's reliance on partners like VMware and Trend Micro for evolving solutions. Others, like R5, R6, and R7, demonstrated how high-tier partnerships and collaborative models with companies like Zscaler, Google and Huawei have driven business growth and sustainability.

R2, R6 and R9 underscored the importance of having a single point of contact for clients and the value of teaming up to offer comprehensive solutions. R3 and R9 highlighted the risks of trying to do everything in-house, with R3 pointing out the dangers to reputation if a company fails in an area they are not proficient in. R5, R6, R8 and R12 highlighted their unique positions and partnerships for their specialised approaches and their distinction in the market. Moreover, the ability to share resources and outsource specialised services, as seen in the approaches of R10 and R11, ensures flexibility and resilience in the face of challenges.

R12's experience during the pandemic further underscores the importance of investing in partnerships for long-term growth. Through upskilling and strategic collaboration, resellers can not only survive but thrive in disruptive environments. These partnerships enable resellers to optimize their offerings, expand their service portfolios, and align themselves with market trends, ensuring sustained business success.

Respondent	Verbatim Quote
R1	"...we have...focused partners...different vendors, different principals... Some solutions that the market needed right now, like the big data "
R2	"...it involves the data centre, it involves the system and storage...we will seek the assistance from other organisation which is expert in the cabling and then we will team up together... Because the client will feel more convenient...to deal with single point of contact.. "
R3	"We will not be good at certain things and that's where we partner... The first choice is always try to partner...those who try to do everything...fail in one of the departments that they are not good at and then, their reputation goes down"
R4	"For example, if we partner with VMware, we are the principal status, trend micro, we are the gold status...Without them, we have nothing to sell... we need to evolve into what the market requirements is doing"

Respondent	Verbatim Quote
R5	"So partnerships, some of them we are on the highest tier partnership. We actually was nominated for (Zscaler) partners channel partners for South East Asia"
R6	"...we are Google certified at this moment...working with a lot of partners...working along with partners that will actually share the resources pool and It will create a more sustainable company "
R7	"We do bring in solutions directly from us and those are the products that they don't even have presentation in Asia-Pacific...now we are doing it together with Huawei ...so in fact our business have grewed together with the solution partners that we choose "
R8	"We worked well with most of the principles. Good name. A few Lenovo, Acer. HP...networking We do, but mostly not with the first tier. But with the second Tier. "
R9	"I'll get things done... I have to tie up with, I need to collaborate it with other partners. that complementing my services and product, that will be my Market positioning. "
R10	"..we have a consortium and so My side is more into a trading...another team is more into services like support installation to the customer "
R11	"Our progress with the principals, we have updated our partner level from time to time ... We also provide a cloud services to the customer ... Yes we outsourced to some of our friendly partners that help us on the some of the services. "
R12	"So like today, we are Premier partners of Splunk ... we decided in during the covid period to invest in them and invest in our people, that has helped us to pick up the number"

#### 4.5.1.4 Establishing Certified Niche Specialisations and Identity

R1, R3, R5, R7, and R12 discussed the importance of establishing certified niche specialisation and identity to distinguish themselves in the market. R1 emphasises the importance of being recognized for a particular domain, in this case, data science. Similarly, R3 discussed the need to align with top-tier technology partners such as Red Hat and VMware, so they continually remain relevant and innovative.

R5 pointed out the significance of international certifications, like ISO 27001, as part of their strategy to ensure technical excellence and market recognition. This certification not only builds their reputation but also assures clients of their data security and management capabilities. R7 also discussed the

value of exclusivity in partnerships, such as being appointed as a value-added partner for Huawei Malaysia, which has enabled them to find a niche within industries like energy and government sectors.

R12 described the importance of choosing a niche product, understanding it thoroughly, and looking for opportunities and loopholes to improve and innovate on that product. This will make the reseller more indispensable and add unique market value.

In summary, the respondents underscored that establishing niche specialisations, certifications, and strategic partnerships is key to differentiating themselves in the competitive ICT reseller market. These strategies enhance their credibility and allow them to maintain long-term sustainability in the industry.

Respondent	Verbatim Quote
R1	"... in the market people know us as the data science company "
R3	"making sure what they learn, whom we partner is very important, right; examples like Red Hat, VMware... our innovation begins with the knowledge, right. So, we are working with the forefront of the technology"
R5	"we are actually as ISO 27001 certified. So we continue to certify to ensure that we under the standard bodies that recognized internationally...To make sure that we become number one over two in the area. "
R7	"we are one of the first East Malaysia company been appointed as Huawei Malaysia's value added partners ... we have been bringing niche solution to energy sectors and also is GLC and governments."
R12	"The only two companies in Malaysia that can implement Splunk... We've got a lot of them certified on different different level and that has actually helped us because services is going to be the way and also creating a niche in what type of services you do... find a niche in the particular product and also the loophole in the product. "

#### 4.5.2 Technological Trends' Business Sustainability Initiatives

This section examines business sustainability initiatives related to technological trends, focusing on embracing technological innovations, ensuring professional delivery, and continuously improving from past experiences. The insights presented here are drawn from detailed data and verbatim analysis of

interviews conducted with ICT resellers, providing a comprehensive understanding of the strategies employed to keep pace with rapid technological advancements and achieve long-term sustainability.

#### **4.5.2.1 Embracing Technological Innovations and Ensuring Professional Delivery**

To maintain their competitive edge, ICT reseller SMEs must stay technically proficient and deliver top-tier services. R3 stresses the importance of staying updated with the latest technologies and delivering services professionally, which gives them a competitive advantage. R4 highlights the need to adapt to market demands, particularly during the pandemic, by partnering with industry leaders like VMware and Trend Micro to stay relevant with evolving solutions. R10 recognizes the fast pace of technological advancements and acknowledges the need for continuous learning to remain relevant, even as they work towards mastering new technologies.

<b>Respondent</b>	<b>Verbatim Quote</b>
R3	That helps us ... provide good and reliable service ... keep up with the latest technical knowledge and providing professional delivery ... gives us the edge to sustain
R4	We need to evolve ... Pandemic people look into virtual desktop and security ... partnering with VMware, partnering with Trend Micro
R10	Technology every day ... something new ... is not ready for that ... we have the resources to learn ... following up very closely in terms of new technology ... We are on the way

#### **4.5.2.2 Continuous Improvement from Past Experiences**

R3 emphasises the importance of learning from past experiences by reflecting on previous work experiences with large MNCs, both good and bad, that guided the foundation and operation of their current company through continuous improvement. An example provided is adopting a hybrid working model well



before the pandemic that has put the company in a favourable light while still being efficient and earning trust from customers.

R6 highlights that their team's vast experience in managing significant revenue portfolios and achieving business milestones has provided them with valuable insights. These past achievements have equipped the team with confidence in their ability to deliver effectively in their current role and tackle significant projects, further emphasising the importance of learning from past experiences.

Respondent	Verbatim Quote
R3	"... I always go back to the history ... lessons learned ... hybrid working environment ... pre-pandemic, pandemic, post-pandemic ... be efficient ... clients now have a better expectation ... able to execute it well "
R6	"Our team members have been managing hundred millions ... we have done a lot of things previously ... we should be able to be one of the strategic SI ... We deliver good projects and didn't abandon the projects "

### **4.5.3 Evolving Customer and Market Needs' Business Sustainability Initiatives**

This section examines the business sustainability initiatives related to customer and market needs, focusing on ecosystem understanding, strategic customer engagement, and agility in decision-making and strategy. The insights presented here are drawn from detailed data and verbatim analysis of interviews conducted with ICT resellers, providing a comprehensive understanding of the strategies employed to meet evolving customer demands and achieve long-term sustainability.

#### **4.5.3.1 Ecosystem Understanding**

R1 emphasised the challenging moment during the COVID-19 pandemic, especially the impact on the SMB sector. This has pushed the company to shift its focus on the larger and more resilient customers such as the FSI and Telco sectors.

This has shown the importance of understanding the ecosystem and demonstrating adaptability. R7 similarly highlighted a shift in customer focus into the private sector, such as smaller internet service providers (ISPs) and government-linked companies (GLCs), due to the more agile decision-making processes and lesser bureaucratic challenges. Both strategies emphasise the need for ICT reseller SMEs to continuously understand the ecosystem to know the market trends and growth potential.

Respondent	Verbatim Quote
R1	"... pandemic ... start MCO on the year of- 2020. SMB business is ... sinking. we do some transformation ... target more bigger customers, like FSI industry and telco."
R7	"We try to focus into private sectors or ... smaller ISP ... or some GLC ... rather than really on the government side. So those are the adjustments ... "

#### 4.5.3.2 Strategic Customer Engagement

The data reveals that all the respondents emphasised the importance of building customer relationships through both formal and informal engagements. R1 and R2 emphasised face-to-face meetings and social interactions, such as lunches and informal gatherings, are important in maintaining relationships, reflecting a cultural and social aspect in Malaysia. R5 further supported this by organising networking sessions and quarterly reviews to gather feedback and strengthen ties with customers.

R6 and R10 highlighted collaboration and integrity as essential elements for sustaining business growth, with R6 emphasising exchanging leads and profit-sharing with customers. R7 and R8 mentioned the value of trust and commitment in maintaining long-term customer relationships, with R8 acknowledged the importance of longevity in the public sector.

R9 and R12 stressed the importance of personal connections with customers, seeing them as people rather than mere transactions. This deeper engagement builds trust and helps secure long-term loyalty. R11 emphasised understanding and aligning with a customer's business innovation as a key to forming lasting partnerships.

Respondent	Verbatim Quote
R1	"Customer always, in Malaysia, drinking-eating session is very important... meet up with them, also some product updates ... supplier, they do the same thing to us. "
R2	"serve them face to face or bringing out them to lunch or whatever,"
R3	" enable the clients to be a learning organisation. ... once they're confident, the mindset to adopt more technology comes in; so, you are able to sell more. "
R4	"... relationship building with customers, the principal is important, so that we must get their buy-in that local product is as good as the hyperscale "
R5	"doing a quarterly review. We doing customer communities where they can networking ... refer each others and also they get benefits for the meetings. ... get high customer satisfaction across. "
R6	"... partnership to work with our customers. ... customers also need to look for customers ... exchanging Customers, we are exchanging leads. Sharing the profit margin in certain accounts. ... grow together, ... profit is not important, but the collaboration in the long term basis is more important. "
R7	"... important thing ... trustworthy ... not hit and run company. If we hit problem, we try to solve it. ... what we promise is what we deliver... we understand the environment, ... most of customers have been with us 10 years "
R8	"... love to buy from the people that they know ... would be there and able to solve their problem. So, the number of years that we existed in the market is also important. People see, there are these people already 20 years in the market. ... especially public sector ... they will prefer to deal with season player like us in the market "
R9	"Attentive to the customer. Always be in contact with the customer even that goes beyond your scope. ... customer wants to see you as a person rather than seeing you as a product. ... The ultimate way of getting to the customer is to let them take you as a person in opposed to product"
R10	"... customers support to talk to their friends or their counterpart. To get more customer base.... I do business with one word. Do it properly... be patient. ... must have passion. ... Be honest ... to the customer as well and also the partner who work with you... Do business with your heart. "
R11	"... solve their problem. ... align with their initiative. create a route map for them. ... ensure that the solution that we are providing is aligned with their business innovation. ... engagement with the customer ... know what is the business innovation "
R12	"... product knowledge ... help to solve the customer's problem or to ease their problem, That is the key. ... they know that you will be the go to person whenever they face anything. And once you have that, you can close deal just by phone calls or emails. There's no need to be face to face everyday "

### 4.5.3.3 Agility in Decision-making and Strategy

From the verbatim, it is clear that agility is a key sustainability for the ICT resellers. R6 highlights the importance of making quick decisions and managing risks, comparing their smaller, more agile firm to larger, slower-moving organisations. R2 and R10 echo this by emphasising the need for rapid responses to issues and market changes, allowing them to adapt quickly and avoid falling behind. R4 stresses the importance of evolving and staying ahead by attending international events to capture upcoming trends and adjusting business plans accordingly. R11 mentions that limited resources require quick outsourcing decisions to keep projects moving efficiently, while R12 notes that smaller team sizes make it easier to set direction and ensure quick action, with the hands-on approach of founders encouraging innovation.

Respondent	Verbatim Quote
R2	"We quite adaptive ... something, some issue that I mean some issue happened, then of course we need to respond and to solve it. We cannot just silent ourselves. On our part, we also need to react fast and also give whatever the best that we can offer to them "
R4	"... we are very agile so the only thing we can do is continue to evolve to catching the next wave... attend some bigger oversea event, we try to capture what is the next wave, so that my business plan.
R6	"We are more agile ... we can make a quick decision ... bigger organisations, they are more cautious ... company, which is agile... different kinds of approach to add values in terms of decision making because we are more agile ... can make a quick decision on going to the market.... managing the risk ... bigger organisations, they are more cautious hence, the risk factoring is much more higher"
R10	"Company is agile ... whatever need to change, then will just innovate immediately... Because we need to sustain "
R11	"... the technology is keep changing ... we cook all these change in a very agile time and also in a shorter time that we can get to know all these solution... limited resources ... outsourced to some of our friendly partners that help us on the some of the services "
R12	"Being an organisation with staff force of 35 of us ... pretty easy to group everyone and talk to them about it. And then, being the founders ... personally getting our hands dirty ... assisting in the process of cultivating, the rest to have the thought or to innovate as well "

#### 4.5.4 Operational Inefficiencies' Business Sustainability Initiatives

This section examines the business sustainability initiatives related to operational efficiency challenges, focusing on the optimal utilization of team members and enhancements in management practices. The insights presented here are drawn from detailed data and verbatim analysis of interviews conducted with ICT resellers, providing a comprehensive understanding of the strategies employed to improve operational efficiencies and achieve long-term sustainability.

##### 4.5.4.1 Optimal Utilization of Team Members

Optimizing team members is a key strategy among the ICT reseller SMEs. R2 highlighted that one of their strategies is to optimize team members by promoting from within suggesting they are agile in their strategic staffing decision. Promoting internal also helps to improve reduced risk, retention of institutional knowledge, faster onboarding, and understanding of company culture and values, fostering employee loyalty and motivation (Collins, 2001).

At the same time, R4 applied a cross-training approach, where technical team members are trained in multiple solutions, maximising their skill sets and reducing hiring for specialised roles. R8 shared their approach in ensuring no duplication of roles yet ensuring backup and placing high importance on forming a solid, efficient team that is crucial for the sustainability and efficient running of the operations.

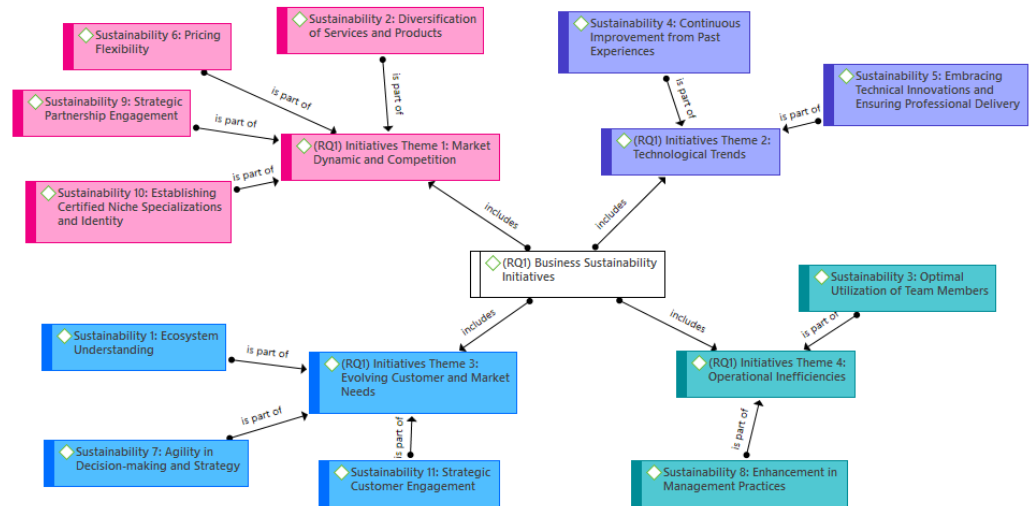
Respondent	Verbatim Quote
R2	"if people resign ... promote someone from the existing team"
R4	"technical people ... train them for B solution, or C solution ... one technical person can have multiple skills ... don't hire three or four people for three, four skills ... optimize our talent and resources"
R8	"no duplication of work... manpower is the biggest asset of the company... if we are unable to form a very good team... it is going to be very difficult for you to run the operations"

#### 4.5.4.2 Enhancement in Management Practices

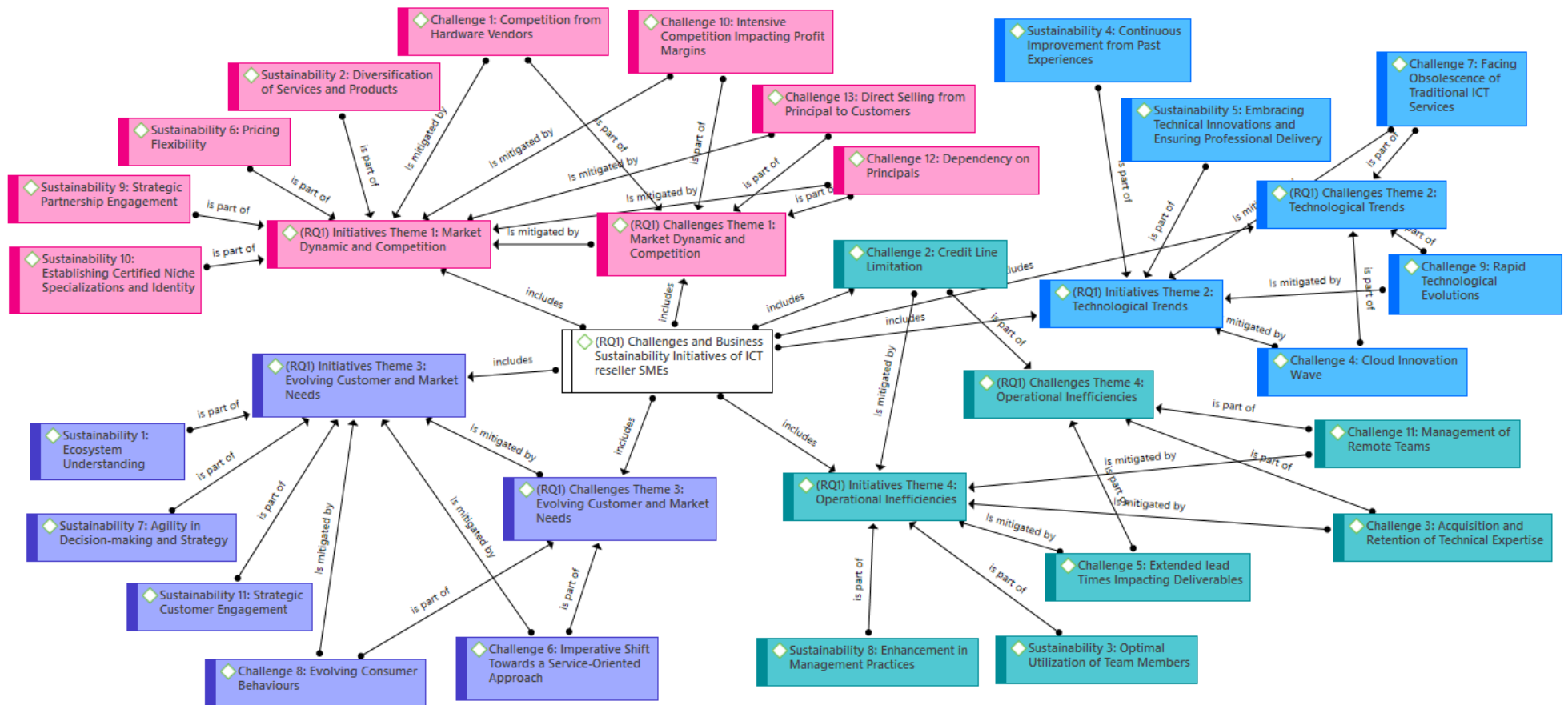
In managing the business in the ICT reseller SMEs, somehow or rather, there is a need to continuously enhance management practices. R8 has provided insights on their enhancement of their management practices, particularly reflecting before and after the pandemic. R8 noted that before the pandemic, management practices within their company were not as detailed and stringent. However, the pandemic pushed them to adopt more careful practices. These included doing thorough financial checks, creating profit and loss accounts for each department, and applying stricter budgeting rules to keep the business sustainable.

Respondent	Verbatim Quote
R8	... we were not so, details in our management, prior to the pandemic. ... already been doing but maybe prior to this, it is not actually so detailed. But now in terms of financial review, in terms of funnels review, in terms of Departments, we have created. Profit and loss for every department, which is actually implemented after covid. We even tighten up our budgeting policy. and also will look into the financial needs of the company. After we have used most of our resources to be used during pandemic, consolidating financial data, analysing it looking at the financial needs

Figure 4.2 shows the summary of the four main themes under the ICT Reseller SMEs' challenges whereas Figure 4.3 shows the connections combining the challenges and the business sustainability initiatives of the ICT reseller SMEs in Malaysia.



**Figure 4.2 Summary View of the Business Sustainability Initiatives by ICT Reseller SMEs Using Atlas.ti**



**Figure 4.3 Summary Findings of RQ 1: The Challenges and Business Sustainability Initiatives by the ICT Reseller SMEs in Malaysia**



## **4.6 The Elements of Business Model Innovation (BMI) to ICT**

### **Reseller SMEs' Business Sustainability in Malaysia**

In this section, we delve into the crucial elements of BMI concerning ICT reseller SMEs' business sustainability in Malaysia. Building upon the literature review, this section presents and analyses the data collected from questionnaires from three foundational elements: the 6C (financial, manufacturing, intellectual, human, social, and natural capital), stakeholder management, and strategic innovation.

#### **4.6.1 Financial Management**

Financial Capital plays a fundamental role in the growth and sustainability of businesses. There are various avenues of financial support for the ICT reseller, predominantly self-funded ventures that rely on personal investment, bank financing that often becomes a key resource for growth, government SME funding with financial boosts and other funds such as PFI (Private Finance Initiative). The summary view of Financial Management is provided at the end of this section, as illustrated in Figure 4.4.

##### **4.6.1.1 Self-funded Strategies**

From the respondents' feedback, it's evident that the majority of ICT resellers in Malaysia adopt a self-funded financial model. They rely on self-funding often due to challenges in accessing external funds, such as unfavourable banking conditions or challenges with obtaining government grants. R1, for example, has built relationships with the suppliers over 20 years, allowing for flexible payment terms that help maintain cash flow. Most of the ICT resellers (R1-R12) leverage on the credit terms facilities when drawing ICT stocks from the distributors. In the business context, this typically means they receive goods or services from their

distributors with an agreement to pay later, usually in 30, 60, or 90 days. This helps maintain cash flow and delays outflows.

R4 shared that they strategically shifted to a managed services model during the pandemic, securing multi-year contracts that ensure a steady cash flow. Similarly, R1, R2, R3, R7, R8, R11 and R12 emphasised reinvesting profits into the company, especially in people and resources, to ensure continuous growth. Several respondents, eg, R5, R7, R9, also indicated that accessing external funding remains challenging, with banks and government funds requiring time-consuming processes. Thus, they continue to rely on organic growth and reinvestment strategies for sustainability.

Respondent	Verbatim Quote
R1	"Yeah, we are self-funded. Majority of the bill is a self-funded, from because of past 20 years we managed to have some, how to say it, some credits. Take the credit from the, our suppliers, okay, and also some margin, some money that we saved, we, how to say it, invest back in all the business . "
R2	"So, we are self-funded through the business; probably no loans... we have revenue growth. Yes, we have some profit growth. ... a lot of it is reinvested in our people, ... we are nothing without knowledge; so, a lot of the reinvestment goes there."
R3	"We are basically self-funded ... But our consistent service for the 8 years have kept us afloat. ... but the pandemic helped us, boost us a bit. "
R4	"We are self-funded. ... during the pandemic time we are moving ourselves to managed service. .... it's not a one-time business, it's a multi year contract. So that's why this is the sustainability model that we are building. "
R5	"So, when we are still early stage is very hard to access to the fund... So, the access to the fund through the traditional banking is very limited and we have to Kind of bootstrapping ourselves and various others. friends and families, try to get to the access to the fund in order for our earliest stage throughout."
R6	"We are currently self-funded, but we also work with some fund house, in order to fund some of the projects. So, it depends on the appetite of the customer"
R7	"So we kind of make organic growth over the past 18 years (self-funded). So basically as a directors or as the shareholder we don't really take money out from the company. So basically, everyone always is kind of on the payroll on the company only. so we reinvest into the company. "
R8	"The primary the primary funding concept of this company. Of course, self-funded. And also the accumulated profit that we have been keeping in the company to get companies going."

Respondent	Verbatim Quote
R9	"I have my savings, I have my clients and I have my partners, so it is a mix and match. you know, I I'm not able to get Funding right from banking facilities. I have attempted to seek loan or rather grant from government ... process and prerequisite, the requirement is too taxing,... take most of my operation business time to attend to it. "
R11	" I think that is the financial in terms of finance challenge that we need to maintain and sustaining with our income and also our revenue. Need to plan very wisely on this part. So it is all self self-funded. "
R12	"Yeah, yes, definitely self-funded. And yes we have always reinvested back, whatever profit that the company has made"

#### 4.6.1.2 Diversifying Financial Sources

##### a) Bank Financing

R1, R7, R10, and R12 discussed getting facilities from financial institutions when facing cash flow challenges. Besides the actual bank loan, R1 and R12 shared that they are using trade facilities such as bank guarantees, performance bonds and letters of credit (LC). These facilities are crucial when working with vendors who need secure payment methods, especially for large projects, where payments are often delayed until completion, as is common with government contracts. R1 pointed out that banks are more willing to offer support when business is good but can withdraw it during tougher times when it's needed most.

R7 primarily self-financed their projects initially but found that larger projects required more capital. They leveraged their partnership with Huawei to strengthen their financial standing, making it easier to secure bank loans. R10 highlighted the cash flow issues faced by SMEs and noted that delayed customer payments could lead to extra finance charges, eroding profit margins. This situation demands careful financial planning to ensure business sustainability.

Respondent	Verbatim Quote
R1	"Banks always like this. When there's a raining, okay, they will take away the umbrella. If you are, you are good, they will come to you and want, want to loan the money to you. And bank is so reality. "

Respondent	Verbatim Quote
R7	"in fact, we've leverage on the relationship with our principal, Huawei with the banks, right. So some banks (loan) are willing to start giving us bigger facilities."
R10	" Financial Institute, local bank to support us (loan). So the challenges definitely is when the customer delay, your payment. I can say that most of the SME organisation, we are not strong in in cash flow. so, we have to spend the money wisely. And also we must plan ahead of our resources and also our expenses. "
R12	"Facilities, I would say, I won't say funding, facilities to be used for projects, so facilities here are from the simple trade facilities, like bank guarantees, performance bonds, LC, because Vendors or suppliers would require secure payment, you see?"

#### b) Government SME Fund

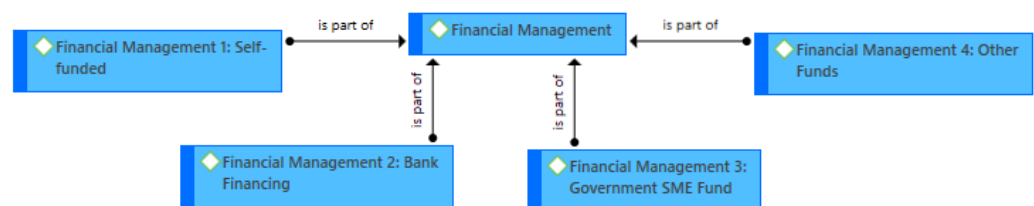
R5 shared that initially, during their early days, they faced challenges in accessing the government SME fund due to a lack of track records. Newcomers may still face these challenges. Out of 12 respondents, only R8 has benefited from various government schemes for SMEs through banks like Maybank and RHB. These funds support both operational expenses (OPEX) and project funding. R8's financial model is based on a yearly budget derived from previous data, ensuring expenses are covered by targeted sales, providing a structured approach to financial management.

Respondent	Verbatim Quote
R5	"So early days when we don't have track records, we don't have support from SME fund. So it's very hard to access but now We do have a lot of track records and a lot of large contracts on big customers. So we Now, do not have that problems anymore (financially). But I presume that new comer will still continue to have this issue. "
R8	"We are also funded via various government special scheme to SMEs... through maybank and also RHB. One is actually for project funding. Another one is actually for OPEX funding... financial model is actually supported by the extensive yearly budget that we have to control all expenses is actually derived from previous years data. And also how to drive sales to ensure that whatever obligations of the company that falls under the expenses would be and will be covered by the targeted sales that we have to budget throughout the year."

### c) Other Funds

R6 explained that the company collaborates with fund houses to finance projects. The customer's financial preferences often influence this collaboration, especially if they require extended payment terms. They also engage with angel investors, who are mainly interested in the business's future growth potential and require a strong track record. Additionally, the company explores the PFI (Private Finance Initiative) model in collaboration with fund houses, but they face challenges, especially with taxation. PFI allows private firms to finance, build, and manage public projects under long-term agreements, which R6 has pursued despite the complexities and lengthy contracts.

Respondent	Verbatim Quote
R6	"Yes, funding will be involved once we are able to strike the anchor. The angel investor will look into our future growth... they are looking at your track record so the idea is good but they also need to look at a track records when they want to invest into you "
	"we also work with some fund house, in order to fund some of the projects. So, it depends on the appetite of the customer, I'll say because some of the customer they need to have a longer payment term. So we will work with the fund house to work out some packages. Or they will be some of the PFI model that we working with Fund house to come up with collaborations and of course, we always face a financial challenges, especially coming to the taxations "



**Figure 4.4 (RQ2) Themes: Financial Management View**

### 4.6.2 Manufactured Capital Management

Under the manufactured capital, a critical component for many businesses involves effectively managing and utilising physical assets. The respondents

mentioned a few approaches to ICT reseller SMEs in Malaysia. This includes embracing inventory-free operations focusing on the service-oriented business model, comprehensive asset management to ensure optimal use of physical resources and significant investment in infrastructure to improve productivity. The summary view of Manufactured Capital Management is provided at the end of this section, as illustrated in Figure 4.5.

#### **4.6.2.1 Inventory-Free Operations**

A common theme among respondents is the shift to service-oriented business models with minimal or no inventory, which is prevalent in Malaysia's ICT reselling sector. R1 highlighted moving from product-based offerings to services like Security Operation Centres (SOC), where they manage security events for clients, providing a steady revenue stream through managed services.

R1, R2, and R3 discussed integrating hardware and software into packaged solutions. For them, services are the primary product, with hardware or software being secondary, helping to sell their services.

R4 and R10 adopted demand-driven inventory models, only acquiring resources when needed, ensuring better cash flow management. This minimizes the risk of holding stock that depreciates quickly in value.

R5 and R9 emphasised market positioning through managed security services, with products and services often supplemented by collaborations with other partners to enhance their offerings.

R6, R7, R11, and R12 operate without traditional inventory, focusing instead on customized services and project-based resources. They rely on their talent pool as their main asset and avoid maintaining stock due to the rapid depreciation of hardware in the ICT industry.

Respondent	Verbatim Quote
R1	"Sell my own services. Not product...We are selling that as a security operation centres. Operation Centre. We call it SOC...We manage the customer 24x7, on their security event
R2	"Mainly it's on the hardware and software application...e help them to integrate together and package it as a solution... I include services as well"
R3	"our product is the service and that service helps sell the products"
R4	"Today at the SI we don't have inventory... we only provide resources when there is a demand... that's how we manage our inventory and ... cash flow."
R5	"we do have selling what we call managed security services, way, or principals are not visible to the end users... they do not need to know what type of products that deploy for them."
R6	"we don't have off-the-shelf products. We are our services is more on fully customized basis"
R7	"we don't really own our own warehouse. So we outsource and where we work with some companies that outsource their warehouse services, in term of inventory. A lot of our inventory are basically project base."
R9	"services oriented which originated from a proven product... I need to collaborate it with other partners. that complementing my services and product, that will be my market positioning"
R10	"Most of the time, it will be based on customer requests, because hardware once the stock get aging... when the PO comes in then we procure the goods for customer."
R11	" we don't really involve in hardware, so we don't really keep stock... talents is our inventory."
R12	"Zero inventory... manage the particular job and that particular person would look into from delivery aspect, Payment and so on. So that's a proper checkpoint..."

#### 4.6.2.2 Comprehensive Assets Management

The respondents verbatim emphasise the importance of asset management, particularly in the context of ICT reseller SMEs in Malaysia. R7 emphasised that people are the company's key asset, followed by physical assets like laptops and transport for site visits. They also prefer owning office spaces over leasing for long-term financial stability. R8 stressed the structured management of assets, ensuring all are detailed and recorded in the company's financial system. This approach supports sustainable growth, even during revenue spikes.

Respondent	Verbatim Quote
R7	"key assets that we have is our people... We bought our own offices...because we figured out the rental and also owning it and then pay money installment to the bank is almost the same "
R8	"The assets of the company are all recorded in detail... we even have an exercise to consolidate all the assets. Get it recorded in our accounts... the company structured enough to grow."

#### 4.6.2.3 Investment in Infrastructure for Business Capabilities

R1 emphasised the Security Operation Centres (SOC) as a significant part of their service offering. This infrastructure allows them to manage customer security events around the clock.

R4 invested in cloud infrastructure, positioning their business to meet the growing demand for cloud-based solutions. This pre-investment in a data centre shows proactive planning and the ability to scale quickly based on customer needs.

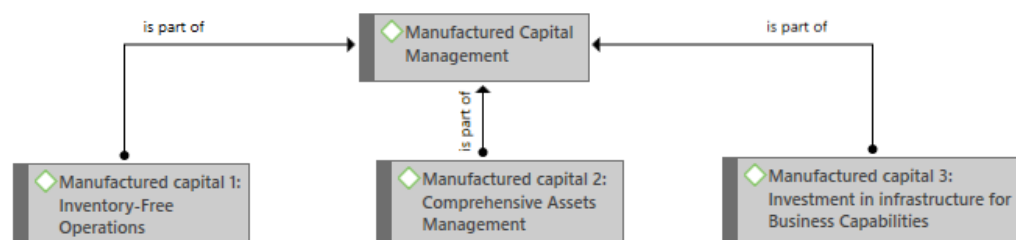
R5 highlighted that their managed security services where the underlying products are not always visible to the end-users. The investment in the infrastructure enables them to customize and package security products to be subscribed as managed services for their customers.

R6 offered comprehensive support on the turnkey projects, taking full responsibility for the service-level agreement (SLA) for both hardware and software components. This level of dedication requires a significant amount of planning, resources, and investment. The mention of standby equipment indicates their readiness to tackle any technical issues, thereby reducing client downtime. This proactive strategy ensures they can swiftly address any hardware malfunctions by replacing faulty equipment and aligning it with the stipulated SLAs.



R7, R10 and R12 emphasised the importance of customizing products based on customer requirements, demonstrating a flexible adaptive infrastructure that can cater to diverse needs.

Respondent	Verbatim Quote
R1	"We are selling that as a security operation centres... We manage the customer 24x7, on their security event"
R4	"We built our cloud called AVM Cloud. Yeah, we have this, like, our own IP for this product. "
R5	"we do have selling what we call managed security services, way, or principals are not visible to the end users... they do not need to know what type of products that deploy for them... We do have customized add on products to certain customers to solve their issue like automations"
R6	"we do turnkey projects. we position ourselves to accept the service-level agreement (SLA) of the entire entire projects, which is consists of hardware, the infrastructure"
R7	"Customers are also expecting different solution... invest in some dashboard customisation"
R10	"we're trying to fine tune and become our own solution to offer to other customer."
R12	"We would want to create a certain app. That could assist customers on a particular industry."



**Figure 4.5 (RQ2) Themes: Manufactured Capital Management View**

### 4.6.3 Intellectual Capital Cultivation

Knowledge-based assets can be the collective know-how, practices, methodologies, and other intellectual resources that give a company a competitive edge, which are crucial for creating and delivering products and services. In the area of intellectual capital cultivation, certification and accreditation play a pivotal role in establishing credibility and expertise. Proprietary products that are unique to a

company further strengthen this competitive advantage. These elements, combined with organisational agility and adaptability, enable businesses to respond swiftly and effectively to market changes and customer needs. At the core of these efforts lies the value proposition of the company's products or services, which distinguishes them from the crowded marketplace. These approaches are seen to be upheld by the ICT reseller SMEs who strive for business sustainability. The summary view of Intellectual Capital Cultivation is provided at the end of this section, as illustrated in Figure 4.6.

#### 4.6.3.1 Pursuing Intellectual Certification and Accreditation

R1, R2, R3, R4, R5, R7, and R11 emphasised the importance of certifications and accreditations. R1 pointed out the challenges of keeping up with changing vendor requirements, viewing them as revenue drivers for vendors. R2 acknowledges the technical team's need for certifications, noting the cost difference between basic and advanced ones. R3 finds both formal certifications and informal endorsements from principals are valuable. R4 emphasised partner status or principal accreditation as essential for their offerings. R5 underscored the importance of ISO 27001 certification and the significance of global recognition, while R7 appreciates vendor programs that support certifications, viewing them as signs of commitment. R11 will be ever ready to send their employees for training whenever requested.

Respondent	Verbatim Quote
R1	"...all these certification is a must ... very time consuming... All is money invested"
R2	"...they (principal) also do have the certain certificate asking us or especially our technical team or engineer to go for it"
R3	"One is official recognition, accreditation as in getting certified or highly certified; not just certified. Second thing is the endorsement from the principal does help. "
R4	"...Without them (principal status), we have nothing to sell... "
R5	"...we are actually as ISO 27001 certified... "

R7	"...They (Huawei) basically willing to spend if they have training... "
R11	" If there is any enablement from a principle, we also involve our team to be part of the training"

#### 4.6.3.2 Developing Proprietary Products to Secure Competitive Advantage

R4 has diversified into cloud development with their proprietary cloud solution. They use a mix of in-house and outsourced developers to enhance and quickly bring their solutions to market. However, competing with global giants like AWS, Azure, and Google poses challenges, especially in gaining the trust of large customers like banks. R4 emphasised that strong relationships with principals are key to competing in this space.

R8 highlighted that they developed a proprietary Learning Management System and sold it to Cyber Security Malaysia and other custom systems for local authorities. Their solutions offer cost-effective alternatives by eliminating the extra expenses of modifying off-the-shelf software.

Respondent	Verbatim Quote
R4	"Based on xxx cloud... we have our developer... we outsource developers... challenges is to continue to upkeep the functionality... the branding, so big customer like bank, they we want to buy from branded stuff... the principal is important, so that we must get their buy-in that local product is as good as the hyperscaler local versus, you know, the big name"
R8	"system that we develop... Learning management system... sold to cyber security Malaysia... cheapest way of doing it is to develop rather than to buy license because most of the time the license software need a lot of adjustment to suit the local authority for local authorities... own ownership to the product is system..."

#### 4.6.3.3 Reconfiguring Knowledge-based Assets

Respondents emphasised leveraging their knowledge and expertise to adapt and grow in the ICT sector. R1 focuses on moving from traditional backup to cloud-based analytics, reflecting their ability to evolve with market demands. R2's

strength lies in integrating hardware and software into IT solutions, providing quick and efficient responses to customer inquiries. R3's cloud and DevOps expertise allows them to stay ahead in these evolving areas, while R4 capitalizes on its technical talent to offer managed services and cloud solutions.

R5's knowledge of managed security services allows them to create seamless, scalable solutions for their customers. R6 focuses on turnkey projects, efficient inventory management, and investing in R&D to streamline processes. R7's partnerships with key players like Huawei and their deep understanding of emerging technologies, such as smart cities, strengthening their leadership in the market. R8's proficiency in financial systems ensures smooth operations and supports the development of proprietary products.

R9's focus on the public sector positions them as a "process enabler" for government and GLC projects, providing essential solutions for these sectors. R10 offers end-to-end solutions, focusing on addressing customer pain points and giving gap solutions, while R11's expertise in data analytics and security allows them to offer cutting-edge platform-based services. R12 specialises in cybersecurity, offering a comprehensive range of services and products supported by their partnership with Splunk.

Respondent	Verbatim Quote
R1	"if you are in this business, you have to know that not only you can do the on premise business, but you can do the cloud business together with all these kinds of solutions like analytics, data management. This is what I said just now, you have to find a way to penetrate in another angles"
R2	"...help our corporate client... integrate together and package it as a solution... respond to them on their enquiry faster.. "
R3	"we are IT infrastructure company, right. But to be more precise, we are cloud consulting. Cloud consulting and also DevOps consulting company"
R4	"So basically, we are capitalized, our technical people, we spin them for a number...So, we need to evolve "
R5	"we do have selling what we call managed security services, way, or principles are not visible to the end users. So what end user know is dealing with us, they do not need to know what type of products that deploy for them "

Respondent	Verbatim Quote
R6	"we have inventory system... do turnkey projects ...invest our resources in doing certain things of Automations"
R7	"We are one of the first East Malaysia company been appointed as Huawei Malaysia's value added partners ... our business have grewed together with the solution partners"
R8	"I am actually an accountant ...we know where the asset is"
R9	"...we propose and we promote process enabler so no matter what kind of end product, that the client may require, I am just the process enabler. I'll get things done ... Public sector government, GLC"
R10	"We provide end-to-end solutions and consultancy...Helping customers address their pain and offering gap solutions"
R11	"... we have these data analytic platform. We have these data security and data protections ...That's very our entire cloud transformations in a complete milestone, and that's where we are providing the additional services and additional consultation services to the customer"
R12	"... initially our key focus was in the cyber security line was, mainly focusing on endpoint. But now we are doing a 360 cybersecurity, so on all levels "

#### 4.6.3.4 Organisational Agility and Adaptability

Organisational agility and adaptability are crucial for staying competitive in changing markets. R1 adapted during the pandemic by shifting from a transactional to an SLA-based model. R2 highlighted the company's ability to make small, continuous improvements while involving stakeholders in major changes. R3 noted their lean structure and "double-hatting" strategy to ensure quick decisions and efficient operations. R4 transitioned from hardware sales to cloud services, aligning with market demand for scalable IT solutions.

R5 emphasised their ISO 27001 certification, showing a commitment to adapting to global data protection standards. R6's flat structure allows for quick decision-making, making them an agile partner for smaller telecom companies. R7 shifted from networking to storage and backup solutions, becoming a value-added distributor in response to market needs.

R8 adapted by forming smaller teams to drive innovation restructuring the company during the pandemic to remain lean and resilient. R9 focuses on being a

"process enabler," showcasing flexibility in meeting diverse client needs. R10 emphasised their ability to innovate quickly in response to market changes. R11 shared the importance of adapting to new technologies and trends, often outsourcing services to manage resource constraints. R12's small, flat organisation allows for easy communication and direct involvement from the founders, fostering a culture of agility and innovation.

Respondent	Verbatim Quote
R1	"before pandemic, most of the time, we are the transactions company like trading company... we transform from the transactional base to the SLA base "
R2	"We quite adaptive... let say it's already involve with major change then we will sit down with all the stakeholder to discuss about it "
R3	"we are lean and we have to be efficient because we are lean and small... it's also for efficiency that we double-hat. The reason for that is, I believe if you are doing sales, you should also be part of delivery"
R4	"We evolve ourselves out to managed service to as a cloud provider "
R5	"we are actually as ISO 27001 certified. So we continue to certify to ensure that we under the standard bodies that recognized internationally..."
R6	"we can make a quick decision on going to the market... some of the smaller telcos that willing to work with us because our organisation is more flat and agile"
R7	"first started we are in WAN networking, the WAN optimisation... We kind of focus in storage and back up solution... So we become kind of value added distributor"
R8	"smaller teams doing new things, it's more of trying to get some innovations into the company... In general, we are getting even stronger than before pandemic in terms of operation and also commercial. And with the smaller size. I believe that the company could actually strive in the coming years"
R9	"we propose and we promote process enabler so no matter what kind of end product, that the client may require, I am just the process enabler. I'll get things done "
R10	"Company is agile so just play along, so whatever need to change, then will just innovate immediately "
R11	"...in Malaysia and how we cook all these change in a very agile time and also in a shorter time that we can get to know all these solution"
R12	"Being an organisation with staff force of 35 of us. I would say it's pretty easy to group everyone and talk to them about it"

#### 4.6.3.5 Enhancing Product or Service Value Proposition

R1 offers 24x7 managed services in their Security Operations Centre (SOC), handling customers' security events to give them peace of mind. They are

transitioning from traditional data backup to cloud-based analytics for more comprehensive IT solutions.

R2 provides integrated hardware and software solutions, focusing on fast responses and tailored solutions to meet customer needs. R3 emphasises cloud and DevOps consulting, helping clients become learning organisations and driving hardware and software sales through their services.

R4 focuses on virtualization, cloud, and cybersecurity, developing their own cloud to help customers scale IT resources without needing physical infrastructure. R5 provides managed security services with a focus on cloud and cybersecurity, offering customized solutions that seamlessly integrate into customers' systems.

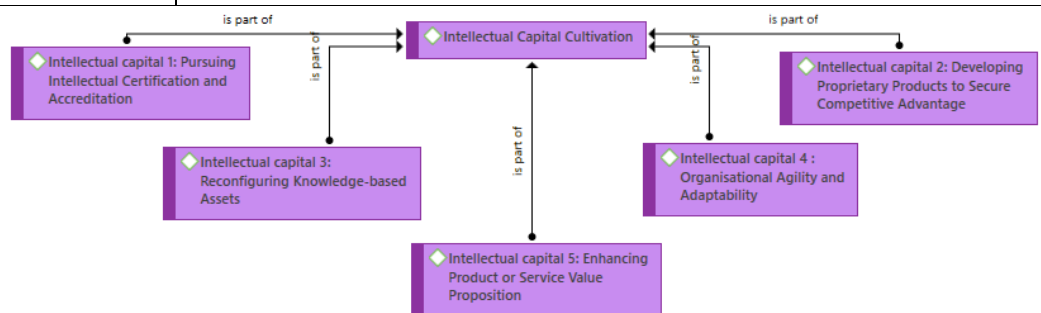
R6 delivers turnkey projects, managing the entire process from hardware to business applications under a comprehensive SLA. R7 introduces Tier 2 IT brands to Malaysia, leveraging partnerships like Huawei to deliver cost-effective and innovative solutions to local enterprises.

R8 targets the public sector, providing cloud services, system integration, and cybersecurity, emphasising the strength of their talented workforce. R9 focuses on process enabler services for the public sector, offering Smart City and middleware solutions, collaborating with partners to enhance their services.

R10 delivers end-to-end solutions while keeping costs low, focusing on value-added services. R11's value lies in consulting services and subject matter expertise, positioning them as trusted partners. R12 specialises in IT and cybersecurity services, collaborating with major brands and promoting green IT solutions for sustainable practices.

Respondent	Verbatim Quote
R1	"We manage the customer 24x7, on their security event... So, you give them a peace of mind "

Respondent	Verbatim Quote
R2	"integrate together (hardware and software application) and package it as a solution... respond to them on their enquiry faster compared with our competitor "
R3	"So, our product is the service and that service helps sell the products... is to enable our clients to be a learning organisation"
R4	"Our key focus will be like virtualization, cloud or cybersecurities "
R5	"we are actually more on Cyber security and very focused on cloud... they do not need to know what type of products that deploy for them."
R6	"we do turnkey projects. we position ourselves to accept the SLA of the entire entire projects, which is consists of hardware, the infrastructure. And also the SLA of the Business Applications "
R7	"we are bringing some tier two brands which we think that they have a good technology state will help the local enterprises, governments in terms of cost savings or in terms of the performance of their day-to-day business activities"
R8	"providing services mostly to the public sector... include system integration, network management and many other... talented system team that we had"
R9	"we promote process enabler so no matter what kind of end product, that the client may require... services oriented which originated from a proven product, for example, Smart City, Middleware, Hardware component, hyperconverged, how they do transformation requirement... I have to tie up with, I need to collaborate it with other partners. that complementing my services and product, that will be my Market positioning"
R10	"it's value added services, which is also we have to do more with less margin "
R11	"The value proposition from what we have providing are based on the consulting services which is the quality of the services that we are giving to our customer, the value added services because the skill set"
R12	"So under the pillars, we actually provide a lot of cyber security services, products, system integration and so on ...We have certain solution that would assist organisation into embarking on how to utilize green IT for the organisation "



**Figure 4.6 (RQ2) Themes: Intellectual Capital Cultivation View**

#### 4.6.4 Human Capital Development

In pursuing sustainable growth, ICT resellers are tasked with the critical challenge of attracting, retaining and developing top-notch talent. A multifaceted



strategy underpins this effort, comprising 14 distinct yet interconnected approaches. It is further classified under five key pillars: financial rewards and incentives, employee benefits and welfare, career development and advancement, talent acquisition and employer branding, and talent management. The summary view of Human Capital Development is provided at the end of this section, as illustrated in Figure 4.7 (RQ2) Themes: Human Capital Development View.

#### 4.6.4.1 Offering Financial Rewards and Incentives

##### a) Competitive Salary

R1 and R7 emphasised higher pay as a strategy to retain talent, reflecting the importance of financial incentives in the competitive ICT industry. R7 also acknowledged the challenge of attracting talent as an SME in a competitive industry. They have often faced challenges in matching compensation offered by larger companies, especially in a market where skilled professionals are in high demand.

Respondent	Verbatim Quote
R1	"Pay more. To retain them "
R7	"that is quite a challenge as a SME, like us, right? Because, Especially in this ICT industry where easily people can pay a good price for... We'll basically give them good will increase their pay"

##### b) Yearly Pay Reviews

R12 mentioned that their company offers yearly increments post-confirmation. This indicates a structured approach to financial rewards, which is likely aimed at motivating and retaining employees.

Respondent	Verbatim Quote
R12	"We have from confirmation increment every year increment"

### c) Performance-Based Incentives

R7, R9, and R12 highlighted the use of incentives to motivate employees. R9 mentioned project incentives for senior staff and traditional HR-related benefits, like overtime and medical, for junior employees. R12 emphasised that the incentive system also included sales, admin, and technical teams, rewarding efforts, and promoting inclusivity. The common belief is that financial incentives strongly impact employee motivation.

Respondent	Verbatim Quote
R7	"Give the incentive (to performing fresh graduates)"
R9	"project incentive... can entice, those senior resources but for young officers, I still go with the normal way of handling resources, give them proper HR related incentive over time"
R12	"each project that is being won....Support team also get a certain incentive in place... Money would actually assist them, let them decide what they want to do. So For us, we still feel money is the best incentive."

### d) Performance Bonuses

R12 shared how the incentives are distributed between the sales team and the support staff. The sales team receives commissions quarterly and a bonus, while other teams typically wait for an annual bonus. The introduction of performance-related incentives for the support team based on completing the certification demonstrates motivation and encouragement to enhance skills, which is beneficial to both the employees and the organisation.

Respondent	Verbatim Quote
R12	"Or we only have to wait a year for our bonus, whereas the sales team actually get their commission every quarter... On top of that, they also get their bonus... complete minimum of three certification no matter what different type of product or what not. So you have done that, you got X amount of money that is given to you during your bonus."

#### e) Share Offering

R6 shared offering company shares to certain employees, effectively making them part-owners. This approach is used selectively and is likely based on the employee's contributions or potential impact on the company.

Respondent	Verbatim Quote
R6	"In certain employees, if we feel there's needed, we also will give them certain shares in terms of the company.. And make them as part of the owners of the companies."

#### 4.6.4.2 Enhancing Employee Well-being

##### a) Work Flexibility

R1, R3 and R9 recognized the importance of offering flexibility to employees to increase their happiness and satisfaction. R3 has adopted a hybrid working model even before the COVID-19 pandemic, which allows employees to work from home or offsite for the majority of the time. R9 emphasised the flexible working hours and the option to work remotely as a key strategy to attract and retain senior-level employees.

Respondent	Verbatim Quote
R1	"Give them more flexibility. Make them happy "
R3	"we have operated consistently from day 1 of the company. A very good example is hybrid working environment"
R9	"Ultimately, those senior resources, beat them with flexible working hours. And the ability to not having to work in the office, I hope. By doing that I can entice, those senior resources"

##### b) Positive Workplace Culture

R8 focuses on creating a different kind of atmosphere within the company. They have a culture that promotes trust, open communication, and a lack of red tape. They measure employees' performance based on their work output rather than

strict discipline. This approach allows for a more flexible and productive work environment.

Respondent	Verbatim Quote
R8	"We have a different kind of people, we have a different kind of culture, so for day one, I always believe that you want to run a good company. You want people, trustworthy people to be in the company you create an atmosphere. That's what we have been working hard in xxx to create a different kind of atmosphere. No red tapes."

### c) Comprehensive Health Coverage

Both R9 and R12 recognised that providing medical benefits to all, especially the younger officers, is a standard practice and essential benefit that employees expect and value. R12 also detailed a policy where employees receive group medical insurance that extends to family coverage after a certain period of employment, indicating a commitment to long-term employee welfare and likely aimed at increasing employee retention.

Respondent	Verbatim Quote
R9	"young officers, I still go with the normal way of handling resources, give them ... Medical things like that, things that, you know things that supposed to be enjoyed by staff"
R12	"And then, on top of it is a group medical insurance. And if they are here with us, more than four years, the group insurance become a family, For the whole family insurance is given for their whole family."

## 4.6.4.3 Career Development and Advancement

### a) Professional Growth Opportunities

R2 highlighted internal promotion as a strategy for career advancement, showing that the organisation values and rewards existing talent. R4 focuses on building relationships with industry associations and government bodies, giving employees networking opportunities and exposure to industry trends for their professional growth. R8 emphasised supporting personal growth by discussing

career advancement opportunities with employees. In some cases, R8 offers shares to employees, making them part-owners, aligning their personal and professional growth with the company's future success.

Respondent	Verbatim Quote
R2	"we can grow from the existing team, yeah I mean we, we just promote someone from the existing team to, sit on the higher post"
R4	"we also join IT association like Pikom and the rest like MSC. Yes You know, it's part of network connections. You need to know every people in various type of areas "
R8	"we discuss about the career growth. In certain employees, if we feel there's needed, we also will give them certain shares in terms of the company.. And make them as part of the owners of the companies"

## b) Continuous Learning and Skill Enhancement

R1, R4, R6, R7, R8 and R11 emphasised the importance of staff training, especially in product certifications, to maintain competitiveness and ensure employees have the necessary skills. This investment benefits both employees and the company by enhancing operational capacity and keeping the workforce updated with industry standards. R3 highlighted the need for foundational technical skills and continuous learning to adapt to new technologies, ensuring long-term relevance in the ICT industry. R5 implemented structured training processes and promoted a culture of learning and sharing to maintain skill sustainability across the organisation.

Respondent	Verbatim Quote
R1	"We do have the training, okay, especially on the products training....Without that, you can't do their business."
R3	"I don't see that as an issue if your skills are sound, the foundation of the ICT resellers' skills are sound ... The only way this ICT can remain relevant long term is to keep learning"
R4	"So basically we are capitalized our technical people we spin them for a number This technical people who are doing the A solution but we train them for B solution or C solution"
R5	"So we try to replicate the whole thing through a process way right now. To make sure it's easier for us to maintain our sustainability of the peoples and resources to refill...organisation structure need to be in is promote learning. And promote sharing as well"

Respondent	Verbatim Quote
R6	"So as a technical staff, we actually train them. We give them trainings. We encourage them to understand new technologies. And keeping them up to date."
R7	"And then we continue to give them professional training as well, right to get themselves upgrade"
R8	"So it is my it is the responsibility of the company to equip the best possible way for a small company like us you know training"
R11	"We constantly providing those training. If there is any enablement from a principal, we also involve our team to be part of the training and also we also do the paid certification for them."

### c) Support for Professional Certification

R3 focuses on achieving advanced certifications and not just the basics to be competitive in the IT market. R11's company even sponsors engineers to obtain certifications in their chosen fields, investing in personalized professional development.

R7 and R12 link certifications to incentives like pay raises, showing the value of certified skills. R7 retains employees by bonding them after certification, while R12 opts for a trust-based approach, not bonding employees despite investing in their certifications.

Respondent	Verbatim Quote
R3	"We try not to only get the basic certifications. We try to achieve as high as we can like for example in VMware we are we have achieved almost the top of accreditation- certification for certain products already right "
R7	"We'll basically give them goodwill, increase their pay, give the incentive ... then we also send them to get trained now so that they get certified and then the certification will bond them and that's how we retain them "
R11	"We also involve our team to be part of the training and also we also do the paid certification for them. If let's say, one of the area that they want to be a certified engineer on a particular view, the company will sponsor on that as well, especially on the certification fee. "
R12	"All our staff that have all the necessary certification or whatever skillset that the company has invested in not a single one we would tie them down with a bond to be working with the organisation for a minimum of three years or five years zero "

#### **d) Career Pathing**

Every employee values a clear career progression in their role. R2 addressed this by promoting internal staff to higher positions, ensuring a visible path for career advancement. R3 recognised the diverse needs of different generations in the workforce. Both R3 and R6 highlighted the importance of personalized career paths to individual needs, especially for technical staff, indicating a customized approach to career development. Additionally, R6 generously adopted a strategy of offering employees shares; integrating them into the company's ownership structure provides the employees with long-term commitment and career paths.

<b>Respondent</b>	<b>Verbatim Quote</b>
R2	"... promote someone from the existing team to, sit on the higher post ya lah. Which is also the good move lah from our management to promote them directly"
R3	"to pique their interest is to continue working with them on relevant areas, helping them to ... the technical side... We have the old school and then, we have the Gen-Y, Gen-Z and all that, right... we need to show them that they have a purpose in this industry, and not just asking them to learn any technology, right, that anybody can do"
R6	"Technical staff. We need to understand, what technology that they likes.... And we discuss about the career growth. In certain employees, if we feel there's needed, we also will give them certain shares in terms of the company.. And make them as part of the owners of the companies "

#### **4.6.4.4 Talent Acquisition and Employer Branding**

##### **a) Active Talent Acquisition**

R2, R5, R9, and R11 focus on hiring recent graduates to shape their skills according to company practices. R9 and R11 also value a mix of fresh talent and experienced professionals. R3 and R4 treat hiring as a year-round activity to ensure steady growth. R5 uses employee referrals, offering incentives after successful probation to attract the right people. R11 participates in career fairs and leverages platforms like LinkedIn to boost employer branding.

Respondent	Verbatim Quote
R2	"I would rather hire a fresh grad. Which is they are still fresh and then they will grow them internally "
R3	"I would like to consistently grow the headcount.. And I expect that to continue every year, we should minimum-ly add at least 20% headcount, until a certain ceiling "
R4	"Our hiring is a continuous is a yearly kind of activity. So hiring is constant because hiring process take time and not easy. So hiring is a yearly event. "
R5	"We try to work with universities to get the universities to join the program... We actually encourage a lot employee references. so, we actually pay the employees for references... So some of the key things that we are trying to adopt to make sure that we get the right people into the right team as well. "
R9	"I want to groom those fresh graduates. I need to start from zero... And but then again, at the same time I still need experience resources. Manning the top. Half of the company. So immediately I am gathering fresh graduates. To change the entire mindset of this ICT related industry"
R11	"Secondly, HR is also looking into involve in a career fair, for those established university, for example, like APU like UITM. My HR and we are now constantly promoting our digital marketing. to promote our profile in a LinkedIn and also that we are creating some awareness and start to have these creative post even in our personal and corporate profile.."

#### **b) Strong Employer Branding**

R4, R7, and R8 emphasised the importance of employer branding for ICT reseller SMEs. R4 noted the challenge of convincing the market of their local product's quality compared to global brands, reflecting the importance of local branding in competing with larger players. R7 highlighted the journey of building a strong market reputation, eventually attracting talent despite high turnover rates. R8 described the advantage of being a local reseller in the public sector, where end-users feel more comfortable dealing with local companies. Strong employer branding is essential for attracting talent and building customer trust.

Respondent	Verbatim Quote
R4	"So, our challenges are to continue to upkeep the functionality and branding. We need to convince them that local products are as good as the hyperscaler"
R7	"Yeah, we made our name in the market, so people are willing to join us, but initially was very tougher. previously we have a lot of high turnovers"
R8	"dominating the Kedah market quite freely, not much competition. The competition would come from Penang and also outside reseller which like selangor and KL. But of course, end user will be more comfortable dealing with the local company and that is for sure, for a fact."



#### 4.6.4.5 Talent Management and Retention

##### a) Effective Talent Utilization

R1, R2, and R10 emphasised the importance of hiring the right people, providing clear direction, and utilizing subject matter experts based on project needs. R2 also highlighted applying pressure to maximize employee performance. R3 focused on cross-functional roles, with sales leads also involved in delivery to ensure promises are met. R4 trained technical staff in multiple skills to optimize resources, while R7 used senior employees to mentor juniors through practical, on-the-job learning. R8 ensured no duplication of work, with each team member specialised in their role, creating an efficient team.

Respondent	Verbatim Quote
R1	"Find the right people. Give them the direction. Tell them what we want to do, what we want to achieve"
R2	"I will make use of each of the resources ... human tend to need some pressure, if let's say they have a pressure of course they will move or they will tend to like giving out their best to the organisation"
R3	"we double-hat on certain pillars So, therefore, the lead for sales is actually a part lead for delivery as well, right"
R4	"we are capitalized, our technical people, we spin them for a number, This technical people who are doing the A solution but we train them for B solution, or C solution. So that one technical people, they can have multiple people skill"
R7	"We don't really have a system, but we do believe in, basically, let the senior bring the junior and let them go onsite and learn together"
R8	"But at present we have a very strong team. But all specialised in whatever they are doing meaning to say there is no duplication of work "
R10	"If we got the project, definitely, We will hire so called SME, subject matter expert. There will be experience guys. If you're talking about fresh graduates, it's not top priority, but we will give chance"

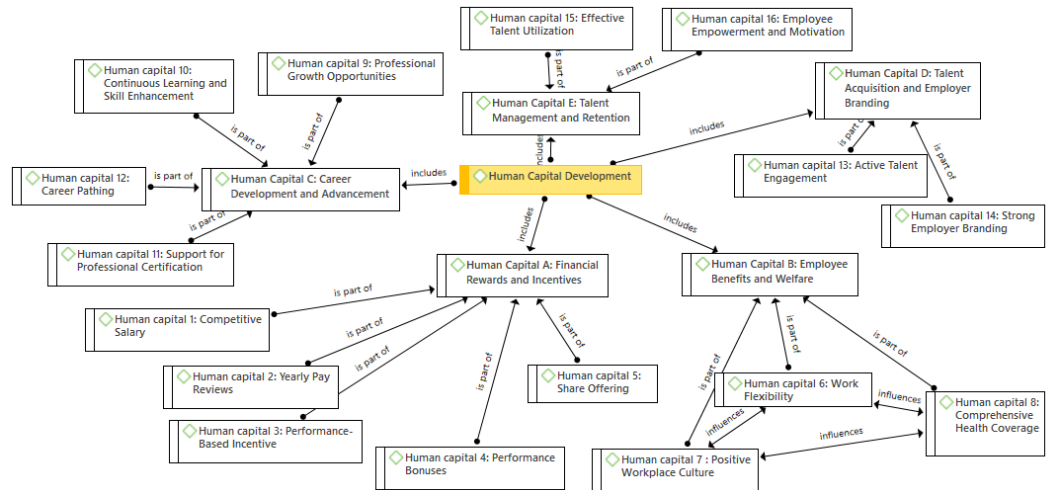
##### b) Employee Empowerment and Motivation

R1, R2, and R8 empower employees by providing clear direction while allowing them to make decisions independently, fostering a sense of responsibility. R3 motivates staff by involving them with new technologies and partnerships,

ensuring they stay relevant. R5 and R6 encourage employees to choose the technologies they want to learn, promoting continuous development.

R8 and R12 emphasise trust, creating a family-like atmosphere where long-term staff are empowered with decision-making responsibilities. R10 practices open communication, motivating employees through direct interactions with leadership. R12 avoids binding employees with contracts, trusting them to stay committed voluntarily.

Respondent	Verbatim Quote
R1	"Find the right people. Give them the direction. Tell them what we want to do, what we want to achieve "
R2	"we don't handhold them or spoon feed them on every decision that they need to make. They will perform more individually"
R3	"we keep them relevant and motivated on what they do, by making sure what they learn, whom we partner is very important... People want to learn new technology"
R5	"So we want our technical people to learn as much as they want. and to share, and this will escalate the way how we going to be."
R6	"We encourage them to understand new technologies. And keeping them up to date"
R8	"we empower them with one of the element is trust ... And most of them are actually been given the responsibility, which means that the decision making Is theirs. "
R10	"If you have problem, you just come to me. So we will talk to the staff openly. We are not really trying to grow the staff but to motivate the staff"
R12	"whatever skillset that the company has invested in, not a single one, we would tie them down with a bond. Nobody is handcuffed here. because we believe in trust"



**Figure 4.7 (RQ2) Themes: Human Capital Development View**

#### 4.6.5 Social and Relationship Capital (SRC) Management

This research reveals that SRC is crucial for ICT reseller SMEs in Malaysia. The findings show that these businesses build and maintain value networks through ecosystem relationships, effective communication, and ethical partnerships. Strategic partnerships and trust-building are also key, supported by innovative marketing and modern technologies. To achieve customer satisfaction, ICT resellers prioritize understanding customer pain points, engaging with their ecosystem, and maintaining certification and compliance with industry standards.

There are two main focuses within SRC management: one is building value networks with various stakeholders, and the other is achieving customer satisfaction, which is critical for business sustainability. Without satisfied customers, ICT resellers would struggle to maintain partnerships with their principals. The summary view of Human Capital Development is provided at the end of this section, as illustrated in Figure 4.8.

#### 4.6.5.1 High Importance of Building Value Networks

While SRC serves as a valuable resource for strengthening relationships, the focus here is on creating robust value networks with customers, principals, partners, and distributors. Building value networks is essential for the success of ICT reseller SMEs to enhance businesses' operational capabilities and long-term sustainability. Below are the opinions gathered from the respondents, and below table summarises the critical resources that form the foundation for building value networks.

High Importance of Building Value Networks	Respondents
a) Building and Maintaining Ecosystem Relationships	R1-R12
b) Effective Communication and Responsive Customer Engagement	R2, R9, R11, R12
c) Collaborative and Ethical Partnerships	R3, R6, R10
d) Strategic Partnership and Trust-Building	R1-R12
e) Innovative Marketing and Modern Technologies	R8

##### a) Building and Maintaining Ecosystem Relationships

All the respondents emphasise the necessity of building and maintaining strong relationships with principals, distributors, customers, and industry associates. These relationships are foundational for gaining business opportunities and securing deals.

Respondent	Verbatim Quote
R1	"although you are the genius, you, or you passed all the papers but you do not have the relationship to the principal and customer, you are nothing"
R2	"It's (building value network) very important. Of course we need to stay in communication with them"
R3	"Finding a win-win through collaboration is the ultimate importance ...to compete with other ICT resellers takes a second priority"
R4	"We become their friend. Everything easy to talk, right. This is part of ecosystems are, you know, we also join IT association like Pikom and the rest like MSC"
R5	"we have our special team like customer success... We doing customer communities where they can networking with others of their same customers"
R6	"What we all have is the relationships with the principals, partners and distributors."
R7	"identified the right partners, then once we go in, we win the war together"
R8	"So relationship with all these relevant parties are definitely important for our company. They contribute in their own ways"

Respondent	Verbatim Quote
R9	" you know is very very important (building value network). Yes, I capitalize on that...leverage and benefits on the network"
R10	"It's very important (building value network). We need that network to help us to get the view"
R11	"better network or engagement with the people, I think it's easy for you to get support from there"
R12	"it's all about relationship. It's all about network and only things happen"

## b) Effective Communication and Responsive Customer Engagement

Effective communication and responsiveness are essential for maintaining strong customer relationships. R2, R9, R11, and R12 stressed the need to stay in constant communication, respond promptly, and ensure customers feel valued. This approach builds trust and long-term relationships, which are key to business success.

Respondent	Verbatim Quote
R2	"we need to stay in communication with them. ... we also need to react fast and also give whatever the best that we can offer to them"
R9	"Always. Attentive to the customer. Always be in contact with the customer even that goes beyond your scope"
R11	"better network or engagement with the people, I think it's easy for you to get support from there"
R12	"Daytime, Nighttime, Evening, you know, you just got to find a slot when you can meet the person, make the person comfortable, and once he see you as a trustworthy person"

## c) Collaborative and Ethical Partnerships

Collaboration, integrity, and ethical conduct form the foundation of successful partnerships in the ICT reseller sector. R3, R6, and R10 highlighted that working with partners and maintaining honesty leads to long-term success. Ethical practices ensure that businesses build a reputation for trust and reliability.

Respondent	Verbatim Quote
R3	"We try to find a win-win through collaboration... partnership model has been always one of our foundations as a company"

R6	"we need to honor the service or we need to honor the products, when you're working with certain partners, vendors or disties. We don't sleep with everyone in the market... win is win, lost mean lost"
R10	"Be honest to the to the customer as well and also the partner who work with you...We need that network to help us to get the view"

#### d) Strategic Partnership and Trust-Building

All respondents emphasised the importance of building trust from customers and demonstrating the value of partnerships with principals. R7's approach highlights the significance of strategic brand positioning, strong partnerships, and trust-building for customer loyalty and business growth.

Respondent	Verbatim Quote
R1	"although you are the genius, you, or you passed all the papers but you do not have the relationship to the principal and customer, you are nothing"
R2	" I will handle the higher management of the customers, then my people will handle the working people"
R3	"Finding a win-win through collaboration is the ultimate importance...We as a company cannot do everything, we cannot be good at everything"
R4	"We become their friend. Everything easy to talk, right. This is part of ecosystems... it's part of network connections"
R5	"we believe in customer references... We also have focus partner, focus principal that we want to work with and we spend more time and resources in to make sure that he can grow to a certain areas that we want"
R6	"first is we need to honor the service or we need to honor the products, when you're working with certain partners, vendors or disties. We don't sleep with everyone in the market."
R7	"I believe the most important thing is basically how trustworthy you are. we are not hit and run company. If we hit problem, we try to solve it."
R8	"relationship is important in the sense that you could also lower down our overall cost in running of any of the operation or any projects"
R9	" I capitalize on value network...leverage and benefits on the network"
R10	"We need that network to help us to get the view... We need support from principal to get more revenue. To get more customer base"
R11	"better network or engagement with the people... I think I would say the resources support from the principals and distributors to generate more project or to have more leads"
R12	"it's all about relationship. once he see you as a trustworthy person, Yeah, then you're looking at the long-term relationship"

#### e) Innovative Marketing and Modern Technologies

R8 emphasised that innovative marketing strategies and modern technologies are vital for reaching customers and staying competitive. By employing younger talent and digital marketing tools, businesses can enhance their reach and effectively engage customers in today's market.

Respondent	Verbatim Quote
R8	"So to employ younger blood in the company and applying the skills and also expertise on social media, multimedia... important for the company to be commercially relevant"

#### 4.6.5.2 Achieving Customers' Satisfaction

Customer satisfaction is critical for long-term success in the ICT reseller SME sector. All the respondents agreed that understanding customer pain points and delivery value and having collaboration and engagement with the ecosystem are vital strategies for achieving customer satisfaction. Additionally, maintaining a commitment to certification and compliance ensures customer trust and high service standards. Below are the opinions gathered from the respondents, and Figure 4.8 (RQ2) Themes: Social and Relationship Capital Management summarises the critical resources that form the foundation for ensuring customer satisfaction.

Achieving Customers' Satisfaction	Respondents
a) Understanding Customer Pain Points and Delivering Value	R1-R12
b) Collaboration and Engagement with the Ecosystem	R1-R12
c) Commitment to Certification and Standard Compliance	R1, R2, R3, R4, R5, R7, R11

##### a) Understanding Customer Pain Points and Delivering Value

All the respondents emphasised the importance of understanding customer pain points and providing solutions that align with their needs, whether for SME,

enterprise, or public sector customers. This helps in building long-term relationships.

Respondent	Verbatim Quote
R1	"we have to stand on the customer's point of view...For the SME customers, they want is cheap things... For enterprise, SLA is very important, because this one will help them to meet their KPI
R2	"customer will share with us what is their pain point...we'll bring the respective technical team to sit down and talk to them what is the solution that we are going to propose. And after that eventually, we will work out the budget for them"
R3	"find out what they need, implement the product. And then, the big value proposition, is to enable our clients to be a learning organisation"
R4	"We captured the wave during the pandemic on what kind of solution that our customers are looking altogether. For example, we are providing a virtual desktop solutions so that all their staff can work from home. This solution, we are providing during pandemic"
R5	"understand the customer requirement and pain points and then try to deliver them onsite"
R6	"They (Customers) pay money to solve their problems, not to have more problems"
R7	"So we understand the customer environment, a lot of customers we go with them very deep. Once we are in, we basically can do a lot of things for them in their organisations"
R8	"our existence is still that we have to be trustable to our end user, and from there sales could be generated"
R9	"Attentive to the customer... them take you as a person in opposed to product"
R10	"we have to understand customer pain... have a team just purely into services to support customer"
R11	"from the customer perspective, they want us to solve the problem...we aligned with their business innovation"
R12	"Have to help to solve the customer's problem or to ease their problem... when you give the recommendation, they take it seriously"

## b) Collaboration and Engagement with the Ecosystem

All respondents highlighted the importance of collaboration and engagement with the ecosystem to support customer's satisfaction. These engagement creates synergies and enabling the business to deliver comprehensive solution to maintain competitive advantage.

Respondent	Verbatim Quote
R1	"we do have quite of number of principals that we work with"

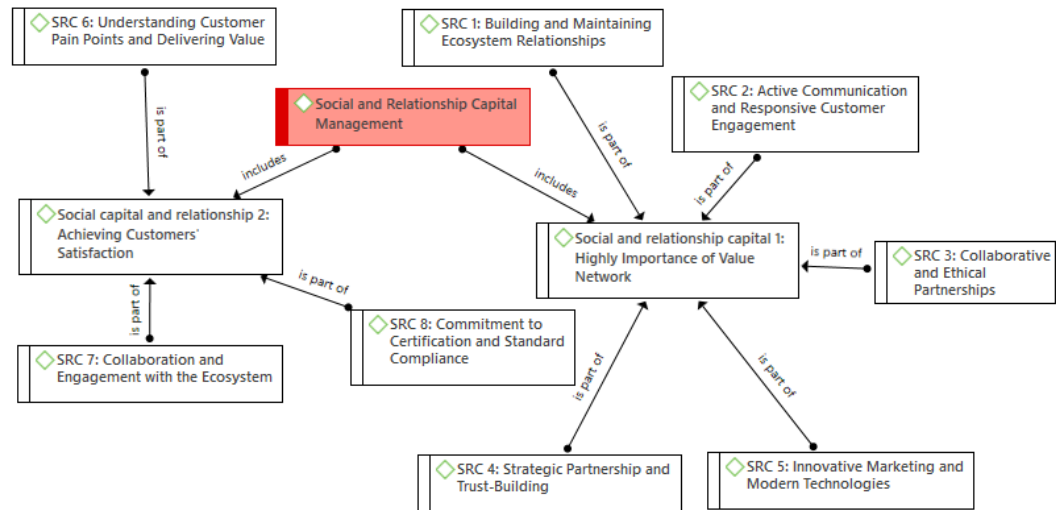


Respondent	Verbatim Quote
R2	" I do have a certain enquiry, network, network and security plus cabling, of course our organisation don't do the cabling so we will seek the assistance from other organisation... the client will feel more convenient or easier to deal with single point of contact"
R3	"we keep them (customer) staying relevant and motivated on what they do, by making sure what they learn, whom we partner is very important"
R4	"We become their friend. Everything easy to talk, right. This is part of ecosystems are, you know, we also join IT association like Pikom and the rest like MSC"
R5	"we have our special team like customer success... We doing customer communities where they can networking with others of their same customers"
R6	" So, we are taking a holistic approach to taking a full responsibility in terms of full project basis as a turnkey project basis... What we all have is the relationships with the principals, partners and distributors."
R7	"identified the right partners, then once we go in, we win the war together"
R8	"So relationship with all these relevant parties are definitely important for our company. They contribute in their own ways in (serving customers)"
R9	" I have to tie up with, I need to collaborate it with other partners. that complementing my services and product, that will be my market positioning"
R10	"We need that network to help us to get the view. We need support from principal to get more revenue. We need customers support to talk to their friends or their counterpart"
R11	"better network or engagement with the people, I think it's easy for you to get support from there"
R12	"it's all about relationship. It's all about network and only things happen... having good relationship with the Distributors or to your suppliers"

### c) Commitment to Certification and Standard Compliance

More than half of the respondents emphasised the importance of meeting certification requirements and following industry standards to maintain credibility, access principal resources, and meet customer expectations.

Respondent	Verbatim Quote
R1	"Without the certification, they can't, how to say, access to the portal to do the sizing, to do all the designs"
R2	"...principal's route map, they also do have the certain certificate asking us or especially our technical team or engineer to go for it"
R3	"One is official recognition, accreditation as in getting certified or highly certified; not just certified."
R4	"...Without them (principal status), we have nothing to sell... "
R5	"...we are actually as ISO 27001 certified... "
R7	".The solution that we propose to customers. We try to go to the environmental friendly way. It has to be a certain compliance"
R11	"Our progress with the principals, we have updated our partner level from time to time"



**Figure 4.8 (RQ2) Themes: Social and Relationship Capital Management**

#### 4.6.6 Natural Capital

ICT reseller SMEs are increasingly recognizing their responsibility toward natural capital by adopting sustainable practices. They focus on five main strategies: using recyclable or renewable materials, offering eco-friendly offerings, reducing carbon footprints through energy optimization, and environmental awareness initiatives among customers and employees. These actions align with the global push for sustainability, demonstrating the resellers' commitment to renewable energy and environmental protection. It is not significant, but they are at the infant stage. The summary view of Natural Capital is provided at the end of this section, as illustrated in Figure 4.9.

##### 4.6.6.1 Recyclable or Renewable

Many ICT reseller SMEs rely on their principals for sustainability initiatives, highlighting the supply chain's role in driving eco-friendly practices. While SMEs have limited control over sustainability, they can influence customers to choose more sustainable products and solutions. Based on the verbatims by R1,

R9, and R10, their strategies reflect the growing importance of sustainability-driven by customer preference, market trends, and the influence of principals.

Respondent	Verbatim Quote
R1	"We just follow what the principal say. Try to ask end user not to buy too many things. Just try to reuse back all the things that they can use"
R9	"I only have this small little role in renewable energy... find the decision makers and try to schedule a session with them "
R10	"Most of the hardware product... is all recyclable... We try to propose all this recyclables solution to customer... We will push more of this brand compared to the other brand that has lesser recyclable parts "

#### 4.6.6.2 Eco-friendly Offerings

ICT reseller SMEs have begun focusing on eco-friendly offerings as part of their sustainability efforts. The focus is primarily on promoting green technologies provided by principals rather than implementing internal sustainability practices.

R2 acknowledged their company's absence of a formal CSR strategy but noted that all newer products come with green energy features. Similarly, R5, R7, R8, R9 and R12 mentioned relying on the principal's products for green technology. As long as the principals provide eco-friendly solutions, the ICT reseller SMEs will propose them to customers.

Respondent	Verbatim Quote
R2	"The newer technology... already come with the green energy... it's mainly, it's on the product itself... we will consult them to go for the green energy"
R5	"We do try to use principals that have green data centres... we also supportive to their ESG... it's still a very infant stage on the compliance "
R7	"The focus is primarily on promoting green technologies provided by principals rather than implementing internal sustainability practices."
R8	"Most of the IT products has been certified as green products... Whether it is green enough to fulfill all those requirements "
R9	"I get the utmost support (green tech) from principal from reseller or from distributor. I'll go all the way"
R12	"Power management or green IT is coming... if the government can set it as compulsory... our solution would assist in that ecosystem."

#### 4.6.6.3 Reducing Carbon Footprint

ICT reseller SMEs are adopting various practices to reduce their carbon footprint, with most focusing on promoting green energy solutions provided by their principals. R2 mentioned that they do not create a carbon footprint and that their role is to consult customers on green energy solutions. R3 and R10 described implementing remote work, reducing office space, and using digital communication to lower emissions. R11 highlighted their focus on cloud transformations and data centre efficiency to minimise the footprint for their customers. R12 shared their internal energy-saving practices, like controlling lights and air conditioning, moving towards digitalization, and encouraging sustainable habits within the company.

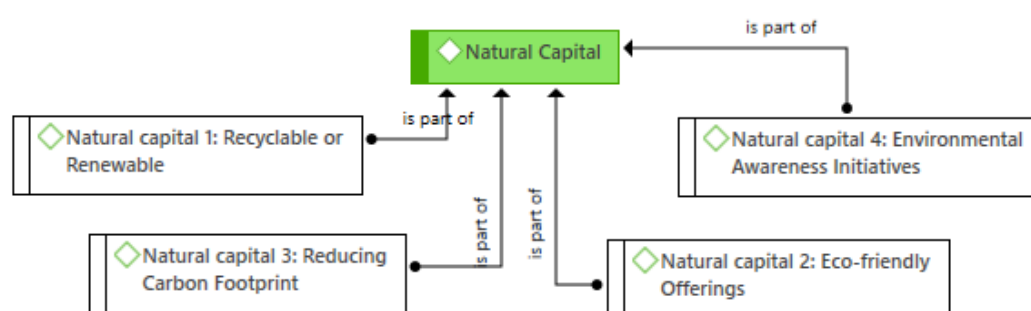
Respondent	Verbatim Quote
R2	"Because we, our company don't create, the carbon footprint... we will consult them (customers) to go for the green energy"
R3	"Indirectly, we are implementing technologies that downsize the data centres... In fact, even our office has implemented, the solar energy panels to power our own airconds"
R10	"We try to cut down expenses, like printing... use email and WhatsApp... e-documents, e-invoice and E-delivery order "
R11	"The cloud transformations, how we reduce the footprint in terms of the datacentre... we share with customers on this area"
R12	"We also ensure the fact of the lights usage of light, airconds or what not, is been controlled... even printing we have controlled printing everything is moving on digitalization "

#### 4.6.6.4 Environmental Awareness Initiatives

R4 stated that they have no role in green energy or renewable energy initiatives, primarily due to their focus as resellers and not being in data centre operations. However, the CEO is exploring how to integrate green practices into their business model by attending seminars. R11 highlighted that environmental awareness varies among customers, with utilities being more interested than other

sectors, like financial services. R12 shared a more direct approach, offering solutions to help customers manage energy consumption and calculate carbon footprint, promoting sustainability through their products.

Respondent	Verbatim Quote
R4	"Currently my company has no role in here... we are not in the data centre... Our policy is work from office... I'm attending some of the seminars, you know, how to bring this thing to be applicable to our business model"
R11	"We need to create awareness on this session between energy sustainability... only the utilities customer is looking at this... The customer is not aware the importance of this... our FSI customer... they don't really care about this "
R12	" We have a solution that does the PC power management. how much you spend to run a single machine, how much of energy is being used in a day, how much of carbon footprint has been released"



**Figure 4.9 (RQ2) Themes: Natural Capital**

#### 4.6.7 Significance of Strategic Innovation in ICT Reseller SMEs' Business

The strategic innovation approaches of the ICT reseller SMEs in Malaysia are diverse, yet all respondents emphasise the critical role of innovation in driving business growth, sustainability, and competitiveness in a rapidly evolving technological landscape. The findings highlight a shared understanding of how vital innovation is to the long-term success and sustainability of these businesses. The ICT reseller SMEs focus on six key areas: innovation resource allocation, stakeholder innovation synergies, customer-centric innovation, leadership and strategic direction, adaptation to technological changes, and agility in business

operation shown in the summary below. The summary view of Natural Capital is provided at the end of this section, as illustrated in Figure 4.10.

Key Area	Key Points	Respondent
<b>1. Innovation Resource Allocation</b>		
Financial Investments and Human Capital	Significant resource investments in R&D, financial prudence, and investing in the right talent to support innovation.	R1-R12
Intellectual Capital Development	Developing intellectual property and creating scalable products.	R5, R7
<b>2. Stakeholder Innovation Synergies</b>		
External Strategic Partnerships and Collaborations	Importance of strategic partnerships in extending capabilities and reaching new markets. Partnering with principals for product enhancement without bearing the entire R&D burden internally.	R1-R12
Internal Stakeholder Engagement and Collaboration	Effective collaboration with external partners often requires a skilled and knowledgeable workforce about emerging technologies. Acquiring the right talent and upskilling current employees are important to the ICT business.	R1-R12
<b>3. Customer-Centric Innovation</b>		
Aligning Innovation with Customer Needs	Importance of aligning innovative ideas with customer requirements and ensure practicality and valuable from customer's perspective.	R1-R12
<b>4. Leadership and Strategic Direction</b>		
Leadership Commitment	Critical role of leadership in driving innovation, fostering an innovative culture, and providing clear strategic direction.	R1-R12
Strategic Planning	How innovative efforts and strategic partnerships influence the company's market positioning.	R1-R12
<b>5. Adaptation to Technological Changes</b>		
Staying Relevant to Technological Trends	Importance of staying abreast of industry trends and adapting products and services to meet evolving market demands.	R1-R12
<b>6. Agility in Business Operation</b>		
Optimizing Processes and Enhancing Efficiency	Innovation isn't just product-based; it's also about improving processes, services, and operational efficiency.	R1-R12
Flexibility and Continuous Learning	Importance of being adaptable and continuously learning. This involves staying updated with technological trends, taking calculated risks, and learning from successes and failures to optimize operational efficiency.	R1-R12

#### 4.6.7.1 Innovation Resource Allocation

Effective resource management is fundamental for ICT reseller SMEs to drive strategic innovation. Resource allocation, encompassing financial investments, human capital, and intellectual capital development, emerged as a central theme in the interviews with the resellers. These resources are essential for enabling innovation, ensuring financial prudence, and addressing the challenges of limited resources.

##### a) Financial Investments and Human Capital

All the respondents emphasised the importance of financial investments and skilled human capital in fostering innovation. R1, R3, R7 emphasised that substantial investments in R&D to remain competitive and responsive to market changes. R2 and R8 stressed the need to adopt innovation prudently, balancing financial investments with maintaining financial health. All respondents agreed on the importance of upskilling the workforce through training in the emerging technologies.

Respondent	Verbatim Quote
R1	"A lot of investment have to put in, you have to find the right people, you have to find the right customers, and you have to think about the right direction."
R2	"It's very important but bear in mind that the innovation must come with the changes.. feasible to do that right, then of course we'll go ahead to do that"
R3	"innovation is the most important and from our business point of view... We have started some software development just for internal R&D"
R4	"we try to capture what is the next wave, so that my business plan will involve my people to get ready to train and be a front line for the upcoming technology"
R5	"will require more resources and more time to research and develop this into a real IP for us"
R6	"We really invest our resources in doing certain things of Automations"
R7	"I would do try to invest in some dashboard customisation and how to localise the product "
R8	"innovation is so important as far as IT is concerned, but we would rather focus on our P&L"
R9	"Any innovation. would need to be driven by the one with decision, ability and authority"
R10	"we have to look into the new solution offering and also the new market trend... we have to buck up and also, we have to learn more."

Respondent	Verbatim Quote
R11	"we are the one who constantly involve ourself into a solutions and technology"
R12	"once you innovate, that is the key thing that will push you to the next level... find a niche in the particular product and also the loophole in the product"

#### b) Intellectual Capital Development

In the context of innovation resource allocation, intellectual capital development emerged as a crucial element for ICT reseller SMEs. Both R5 and R7 emphasised the importance of creating and protecting intellectual property to enhance scalability and long-term growth. R5 highlighted the effort to transition from a customer-specific solution to more universally applicable products so that the innovations are scalable and reusable. This can promote long-term growth and sustainability. R7 mentioned the need to invest in intellectual property to differentiate themselves in the market for offering unique value propositions to enhance competitive advantage.

Respondent	Verbatim Quote
R5	" It's very dedicated to one customers. It cannot be used generally for across a bigger scale of customers where we can build one and reuse it many time. So we are working towards that areas"
R7	"We are looking into developing our own products... the market are different. Customers are also expecting different solution as well"

#### 4.6.7.2 Stakeholder Innovation Synergies

Stakeholder innovation synergies, including both internal and external collaborations, play a vital role in fostering innovation for ICT reseller SMEs. All respondents highlighted the importance of forming strategic partnerships to share resources and capabilities in promoting innovation, ensuring that businesses remain competitive while mitigating the challenges of limited resources.



### c) External Strategic Partnerships and Collaborations

All respondents emphasised the significance of forming strategic partnerships and collaborations. These partnerships are essential for sharing knowledge, resources, and capabilities, significantly enhancing innovation. By collaborating with principals and other leading firms, these companies can access advanced technologies and innovative solutions without bearing the entire R&D burden internally. This engagement ensures that the company stays relevant and competitive in a rapidly changing technological landscape.

Respondent	Verbatim Quote
R1	"a lot of R&D you have to get involved...you have to find the right people, you have to find the right customers, and you have to think about the right direction"
R2	"I would say every business need an innovation... with major change then we will sit down with all the stakeholder to discuss about it..."
R3	"internally, we do some R&D of which products make sense and all that... I have my hand-picked partners who will do security for us if I need to go deep security... we try to find win-win through collaboration"
R4	"So our side do not have R&D, we will partner with those principal"
R5	"We also have focus partner, focus principal that we want to work with and we spend more time and resources in to make sure that he can grow to a certain areas that we want"
R6	"we use partnership to work with our customers... The profit is not important, but the collaboration in the long term basis is more important"
R7	"we are doing it together with Huawei because we can see that they have an end solution... We are looking into developing our own products. Those from our experience with a smart cities."
R8	"When we invested in Cloud with AWS... we were Innovative enough at the point of time but ahead of time"
R9	"my investment would be, you know, send out people send out principals to get onto the customer side and then share their innovation piece and the R&D piece."
R10	"We need that network to help us to get the view... on the current solution whether it is suitable for the customer and us to pick up"
R11	"we see how these technology will be able to provide the innovative solutions to our customer, then we bring this to our team to evaluate and then to look at the need for our customers"
R12	"Choose the product you innovate and you sell that will help you sustain so that framework has to be there... find a niche in the particular product and also the loophole in the product. If you don't, the principal will dictate"

#### d) Internal Stakeholder Engagements and Collaborations

Internal stakeholder engagement and collaboration enable effective partnerships and drive innovation within ICT reseller SMEs. The role of internal stakeholders—such as management, technical staff, and employees—was repeatedly emphasised in the interviews. All the respondents highlighted that having the right talent and upskilling current employees are important for implementing innovative solutions. Internal teams need to stay updated on emerging technologies to enhance the innovation process and effectively collaborate with external partners.

Respondent	Verbatim Quote
R1	"a lot of R&D you have to get involved...you have to find the right people"
R2	"we'll bring the respective technical team to sit down with them and talk to them what is the solution that we are going to propose"
R3	"we are working with the forefront of the technology in our field and all the technology brands we are working with. Without that, we cannot enhance our consulting, alright. So, to us, innovation is through knowledge"
R4	"involve my people to get ready to train and be a front line for the upcoming technology"
R5	"develop it into a product that will require more resources and more time to research and develop this into a real IP for us...we get the right person to lead this one"
R6	"Our engineers... We really invest our resources in doing certain things of Automations... company will need to leverage on AI... leadership of the stakeholders, that's the most important to the whole equations"
R7	"Slowly it would be more to software solutions or integrations to how AI platform works. That's why we have a software integration team now."
R8	"That's the reason why we employ more people, right now is for us to strengthen our existing operations, not trying to play with new risk"
R9	"Any innovation. would need to be driven by the one with decision, ability and authority"
R10	"A new solution or total solution end-to-end solution to customer with all this new technology, (supported) by software Development team"
R11	"Actually is by three of us to define it, which is the my two business partner and myself, constantly involve ourself into a solutions and technology."
R12	"Within the organisation there again. Being an organisation with staff force of 35 of us. I would say it's pretty easy to group everyone and talk to them about it (innovation)"

#### 4.6.7.3 Customer-Centric Innovation

Strategic innovation is critical for ICT reseller SMEs because customer-centric innovation emerged as a significant theme in the interviews with the resellers. By focusing on consumers' evolving needs and behaviours, these businesses can effectively counter challenges identified earlier, such as customer and market needs. Specifically, the shift towards a service-oriented approach and the ability to adapt to changing consumer behaviours are pivotal for sustainable growth and customer satisfaction.

##### e) Aligning Innovation with Customer Needs

All the respondents quote that they are aligning innovations around the customer needs or market demands. They ensure that their offerings remain relevant, practical, and valuable, which contributes to long-term customer satisfaction and business sustainability. R6 even stressed that the innovation has to align with customer needs, or else there is a risk of not getting paid. R8 emphasises the financial balance in the innovation effort, and R12 suggested finding a niche area in aligning with the innovation that the customer needs.

Respondent	Verbatim Quote
R1	"a lot of R&D you have to get involved...you have to find the right people, you have to find the right customers, and you have to think about the right direction"
R2	"I would say every business need an innovation... with major change then we will sit down with all the stakeholder to discuss about it..."
R3	"We work with clients to see what suits them, what suits their budget or what their team are familiar"
R4	"We captured the wave during the pandemic on what kind of solution that our customers are looking altogether"
R5	"we try to bring back the values to the customers, understand the customer requirement and pain points and then try to deliver them onsite"
R6	" innovation is very good but most of the time... align with their business requirement, somehow, we may not be able to get paid"
R7	" understand market with the innovative from the market. the industry is everything that let's keep benefits us and benefits the customer"
R8	" we would rather focus on our P&L and perhaps one or two years. If the market continued to be good, the growth continued as it is, then maybe we will try to be innovative to fit customer demand"

Respondent	Verbatim Quote
R9	" send out people send out principals to get onto the customer side and then share their innovation piece and the R&D piece"
R10	" we provide end to end solution and also consultancy to customer, which we can help customers to stop their pain and also at the same time, provide the solution which is the gap solution for them"
R11	"we know the high level and we know how to address these to our customer need"
R12	"To develop more skillset in the services line, especially in the cyber security (demand). which, To make us a very niche player."

#### 4.6.7.4 Leadership and Strategic Direction

Leadership and strategic direction play a pivotal role in the strategic innovation efforts of ICT reseller SMEs. They are the ones driving the company's direction. The analysis of respondents' insights reveals the critical importance of leadership commitment and strategic planning. Here's a detailed breakdown:

##### f) Leadership Commitment

The verbatims from R1 to R12 provide insights into the leadership commitment of ICT reseller SMEs in Malaysia, highlighting their roles in driving innovation, fostering an innovative culture, and providing clear strategic direction, though each had a unique approach. R1 and R4 focused on setting targets and giving clear direction to their teams, with R1 emphasising the importance of guiding people and R4 sharing their company vision at the start of the year. R2 prefers a collaborative approach, ensuring decisions are made after stakeholder discussions. R3 and R11 prioritize continuity in their mission and vision, focusing on maintaining relevance.

R5 aims to position the company as one of the top two in its space through the strategic framework. R6 and R9 stress that strong leadership is vital for successful innovation, while R9 highlights the importance of decision-making authority. R7 delegates more freedom to the middle management team, while R10

drives a mindset shift, transforming the company from a hardware provider to a software-based service company. Finally, R12 commits to running the innovation company with trust and treating employees like family.

Respondent	Verbatim Quote
R1	"Find the right people. Give them the direction. Clear their mind. Tell them what we want to do, what we want to achieve"
R2	"I would say every business need an innovation... with major change then we will sit down with all the stakeholder to discuss about it..."
R3	" We need to continue learning to prepare for the next 24 months... we should remain relevant for the next 24 months for what we have built"
R4	" Our clear vision is always very simple idea. We set a target We're going to meet this target. And everyone share the profit. So this target and vision will be shared, usually beginning of year"
R5	"We want to be number one, number two, in that space. So this way we want to create identity for ourselves, right. If we decide that, this is the right place. That we want to be. We will create all strategy framework across all our pillars. To make sure that we become number one over two in the area"
R6	"leadership of the stakeholders, that's the most important to the whole equations"
R7	"we are bringing up our medium management team. So we give them more freehand to basically execute their plan. So we basically just give a macro direction"
R8	"If the results keep on improving and we have perhaps certain fund that we could actually start reinvesting for new things and innovations"
R9	" Any innovation. would need to be driven by the one with decision, ability and authority. So if that happens, then it's easier to adapt and embark on the new way of doing things. if the one with decision, not able to drive that onto a proper landscape. Forget it. Innovation not gonna happen"
R10	"We are trying to change our mindset from a trading company, or hardware solution company. We want to change it to a software-based company to look more into the services side"
R11	"we have our very solid and also the very clear picture on our mission and vision is actually on year 2021"
R12	"basic principle, that myself, my partner we had, when we founded this company was, We were going to run it for the people with us, is like a family, So, we build the trust with each and every one."

#### g) Strategic Planning

All the respondents knows that strategic planning is essential in aligning innovation efforts with the company's goal and market demands. The respondents collectively highlight strategic planning focused on innovation and market positioning. R1 aims for market recognition as a data science company, while R2

focuses on expanding client communication, particularly through online portals. R3 emphasises a significant transformation into DevOps and DevSecOps consulting, and R4 sees managed cloud services as essential for long-term sustainability. R5 plans to replicate past successes while prioritizing intellectual property development. R6 is developing a model combining application services with hybrid cloud solutions for specific agencies, and R7 plans to enter IPO markets for financial stability. R8 acknowledges the balance between innovation and maintaining conventional revenue streams. R9 focuses on shifting from product-driven to service-centric deliverables, while R10 is transitioning to a software-based service company. R11 outlines a long-term plan focused on data analytics and security, and R12 is expanding their team to support international growth. Each respondent underscores innovation, strategic shifts, or market expansion in their planning efforts.

Respondent	Verbatim Quote
R1	"My future plan, hopefully one day there will, we can achieve, in the market people know us as the data science company"
R2	"3 years from now or 5 years from now but as I say we need to expand more communication to our clients especially like just now what I say mention about the online purchase kind of portal"
R3	"we are somewhat taking a leap in the industry for this... you can call it innovation. We have now transformed into a DevOps, DevSecOps consulting company"
R4	"we evolve ourselves out to managed service to as a cloud provider, so that's why it's a critical success factor for business sustainability"
R5	"Continue to replicate the success that we have been continued to rely on our identity. We have to ensure that we have those references in those countries to sustain our business in the countries. Second thing is we also will put prioritize our own IP in terms of sustainability"
R6	"we are planning on certain model which is like a application service together with On premise and also the hybrid cloud initiatives for certain agencies"
R7	"we do plan for, if we can get into the IPO markets, to raise more fund, so that we can sustain better."
R8	"innovation is so important as far as IT is concerned, but we would rather focus on our P&L...The conventional business is still a strong provider of our revenue"
R9	" I would like to be the one strategically provide services to the customer. So I'm investing more on services centric, deliverables. Rather than product driven to deliverables"

Respondent	Verbatim Quote
R10	"We want to change it to a software-based company to look more into the services side... create tool to help customer to increase their productivity, increase their revenue, get familiarized with their expenses"
R11	" In terms of mission and vision, we already established it and that will be the key focus for the next five to ten years (on data analytic project, data analytic platform, data security, and data protections)"
R12	" we will continue with this plan because we are now looking into making it as a big team bigger team. So that we can then move internationally"

#### 4.6.7.5 Adaptation to Technological changes

Strategic innovation plays a crucial role to effectively adapt to technological changes. This adaptation is crucial for countering challenges related to rapid technological evolutions, cloud innovation waves and facing the obsolescence of traditional ICT services. By staying abreast of industry trends and integrating new technologies into their portfolios, these companies can maintain their competitive edge and meet evolving market demands.

#### h) Staying Relevant to Technological Trends

All the respondents collectively recognise the importance of staying relevant to technological trends and adapting products and services to meet evolving market demands. Adapting to technological changes is essential for the strategic innovation efforts of ICT reseller SMEs to sustain growth and long-term sustainability. All respondents have moved from the conventional hardware or "box-pusher" model to a service-oriented approach. R1, R5, R11, and R12 focus on data security and cybersecurity. R2, R6, R8, R9, and R10 prioritize delivering comprehensive solutions tailored to customer needs. R6 specialises in turnkey projects, while R8 and R9 concentrate on public sector services. R2 and R10 focus on system integration, and R8 emphasises service delivery. R3 has transitioned to

DevOpsSec consulting, R4 has developed its own cloud service, and R7 leverages Huawei's technology for end-to-end solutions.

Respondent	Verbatim Quote
R1	"In the market, right now, demand on the, especially on data science is very demanding from the market"
R2	"Mainly it's on the hardware and software application, we help them to integrate together and package it as a solution "
R3	"We have now transformed into a DevOps, DevSecOps consulting company""
R4	"We built our cloud called xxx Cloud. Yeah, we have this, like, our own IP for this product. "
R5	"managed services... we are actually more on Cyber security and very focused on cloud. So normally we call it Cloud First and Cyber Security"
R6	"we do turnkey projects. we position ourselves to accept the service-level agreement (SLA) of the entire entire projects, which is consists of hardware, the infrastructure"
R7	"we are doing it together with Huawei because we can see that they have an end solution. they have all the way from data centre to telco equipment to transmitting optical equipment"
R8	" we do a lot of services, like preventive maintenance, and the number of equipment are actually massive to the public sector"
R9	" we promote process enabler...focusing on public sectors, GLC on support into services oriented which originated from a proven product"
R10	"We want to change it to a software-based company to look more into the services side."
R11	" we moved on to data analytic project, data analytic platform, Data security, and data protections"
R12	" IT security. That's our main focus which looks into cyber security aspect"

#### 4.6.7.6 Agility in Business Operations

Strategic innovation plays a crucial role in enhancing the agility of business operations. This agility is essential for ICT reseller SMEs to counter operational efficiency challenges, which are grouped under optimizing processes and enhancing efficiency, and being flexible and continuous learning.

##### i) Optimizing Processes and Enhancing Efficiency

R1, R3, R6, R9, R10 and R11 suggest that innovation isn't just product-based; it's also about streamlining processes, integrating new services and technologies, and leveraging automation and AI to reduce costs and improve



productivity. This also means the need for continuous improvement and the effective use of resources

All respondents in this study emphasise the importance of optimizing processes and improving efficiency in their businesses. For example, R1 transitioned from transactional services to a managed services model, enhancing security operations for their customers. This allows customers to feel more secure and worry-free. R2 focused on simplifying communication with customers by implementing an online purchase portal, making interactions more convenient. R3 discussed using technology to downsize data centres and increase efficiency in the workplace. R4 and R7 highlighted their agile approach, continuously evolving to catch the latest trends and provide value-added services.

Several respondents, such as R5, R6, and R9, discussed the importance of streamlining processes. R5 focused on ensuring the sustainability of resources and services through effective process management. R6 and R9 also emphasised the need for inventory and process management, with R9 particularly focusing on transforming processes for better results. R10 mentioned the importance of agility in addressing changes immediately to sustain operations and better support customers. Finally, R11 and R12 talked about leveraging technology to improve the speed and agility of operations, with R12 specifically focusing on customer-driven applications.

Overall, the ICT reseller SMEs showed diverse approaches but shared the common goal of enhancing operational efficiency and maintaining agility in their business operations.

Respondent	Verbatim Quote
R1	"we transform from the transactional base to the SLA base... Operation Centre. We call it SOC... We manage the customer 24x7, on their security event"

Respondent	Verbatim Quote
R2	"we need to expand more communication to our clients especially like just now what I say mention about the online purchase kind of portal"
R3	" we are implementing technologies that downsize the data centres and also create efficiency in the workplace"
R4	"... we are very agile so the only thing we can do is continue to evolve to catching the next wave... developer to continue to enhance our product feature and function"
R5	"So we try to replicate the whole thing through a process way right now. To make sure it's easier for us to maintain our sustainability of the peoples and resources to refill"
R6	"we are planning on certain model which is like a application service together with On premise and also the hybrid cloud initiatives for certain agencies... we have inventory system which is to do maintenance to keeping track the contract of our customer contracts"
R7	"We are in the 3.0 mode already... So we become kind of value added distributor, in a way, a small value added distributor."
R8	"applying the skills and also expertise on social media, multimedia. Many more things instruments that we could actually use, is also important for the company to be commercially relevant"
R9	" the company having this team of Process enabler. So, often times organisation, change their process. so, by understanding the process, I need a sense of innovation, transformation, reformation with regards to their current process"
R10	"Company is agile ... whatever need to change, then will just innovate immediately... Because we need to sustain.. in order to support our customer, I have a team just purely into services to support custome "
R11	"... the technology is keep changing ... we cook all these change in a very agile time and also in a shorter time that we can get to know all these solution... benefit policing, our operation policing, our deliverable policing, our financial policy"
R12	"To develop a product. for instance, in splunk per say that platform you can create your own app applications. it's a customer driven process app for a particular industry"

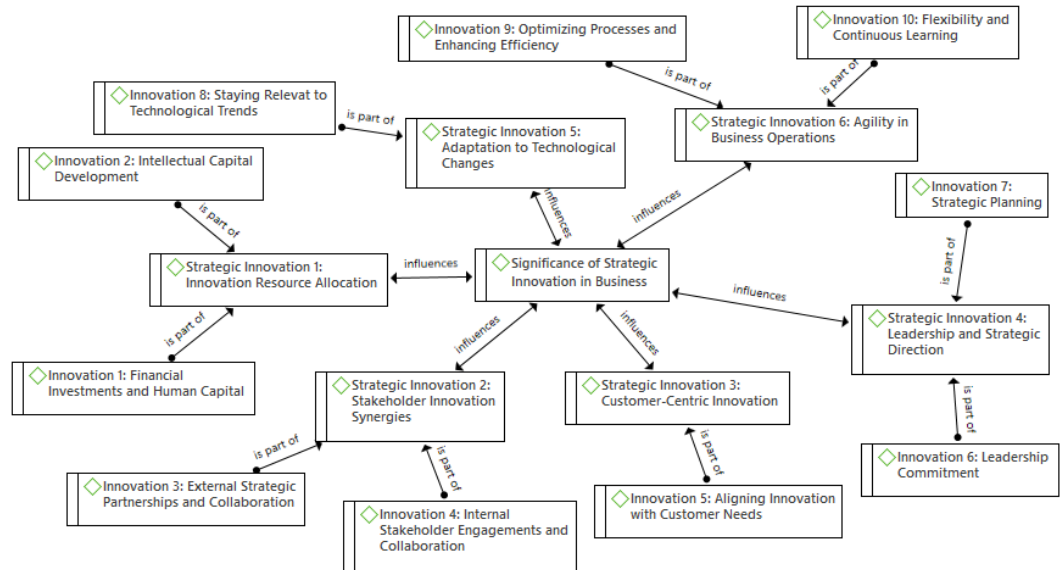
## j) Flexibility and Continuous Learning

The respondents all emphasise the importance of flexibility and continuous learning in maintaining agility within their business operations. Some put a higher priority compared to others. Training is a central theme across all responses. For example, R1, R4, and R6 focus on training their staff, especially in new technologies, to stay updated and maintain operational efficiency. R2 highlights the need to be proactive and open to trying new things, while R3 stresses the value of learning from past experiences to stay relevant.

R5 and R8 mention promoting a learning culture within their organisations, ensuring employees stay updated with industry changes. Similarly, R7 emphasises continuous professional development, while R9 notes that flexibility in learning enables employees to adapt to innovation and new processes. R10 and R11 both highlight the importance of being equipped with the latest skills and knowledge, ensuring their teams are prepared for technological advancements. Finally, R12 discusses the importance of having in-house expertise and providing specialised training to reduce inefficiencies.

In summary, flexibility and continuous learning are vital for ICT resellers to stay competitive, adapt to new trends, and optimize their business operations.

<b>Respondent</b>	<b>Verbatim Quote-Flexibility and Continuous Learning</b>
R1	"We do have the training, okay, especially on the products training....Without that, you can't do their business."
R2	"Persistent, you need to dare to try the new things, yeah and then be more proactive "
R3	" I always go back to the history ... lessons learned ... We need to continue learning to prepare for the next 24 months... we should remain relevant for the next 24 months for what we have built"
R4	"So basically we are capitalized our technical people we spin them for a number This technical people who are doing the A solution but we train them for B solution or C solution"
R5	"organisation structure need to be in is promote learning. And promote sharing as well"
R6	"So as a technical staff, we actually train them. We give them trainings. We encourage them to understand new technologies. And keeping them up to date."
R7	"And then we continue to give them professional training as well, right to get themselves upgrade"
R8	"So it is my it is the responsibility of the company to equip the best possible way for a small company like us you know training"
R9	"So the study (process enabler), the knowledge is an ongoing process. So it's very, very important innovation particularly to influence customer that they have to embark on, they have to possibly embark innovation way of completing the process"
R10	" but we have the resources to learn. And also, we are following up very closely in terms of new technology. Okay. So we need to learn"
R11	"We constantly providing those training. If there is any enablement from a principal, we also involve our team to be part of the training and also we also do the paid certification for them."
R12	"The turnaround to get a deal in. I take three to six months, right? And to have the skillset to have in-house skillset"



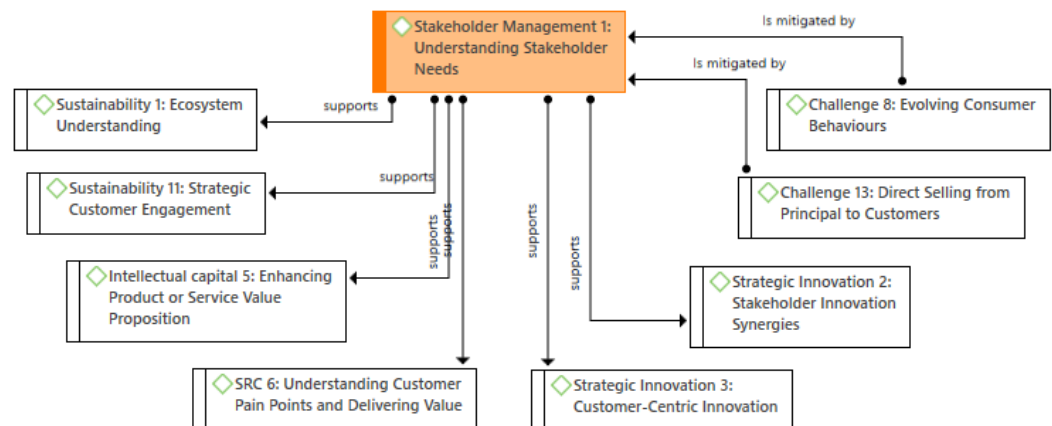
**Figure 4.10 (RQ2) Themes: Significance of Strategic Innovation in ICT Reseller SMEs' Business View**

#### 4.6.8 Stakeholder Management

Previous sections have mapped out how resources are managed within the six capitals framework. This research reveals a fundamental truth: resources are invariably linked to people. This connection is crucial whether we are talking about the challenges that ICT resellers face (section 4.4), their strategies for business sustainability (section 4.5) or how they create value using the six capitals (section 0). By using the Atlas.ti tool has highlighted the significant role that stakeholder management plays. It is a key factor that mitigates overcoming challenges, striving for business sustainability, and effectively managing resources across the six capitals. The ten key stakeholder management were essential and classified into three main categories: relationship building, strategic engagement, and operational excellence.

#### 4.6.8.1 Relationship Building

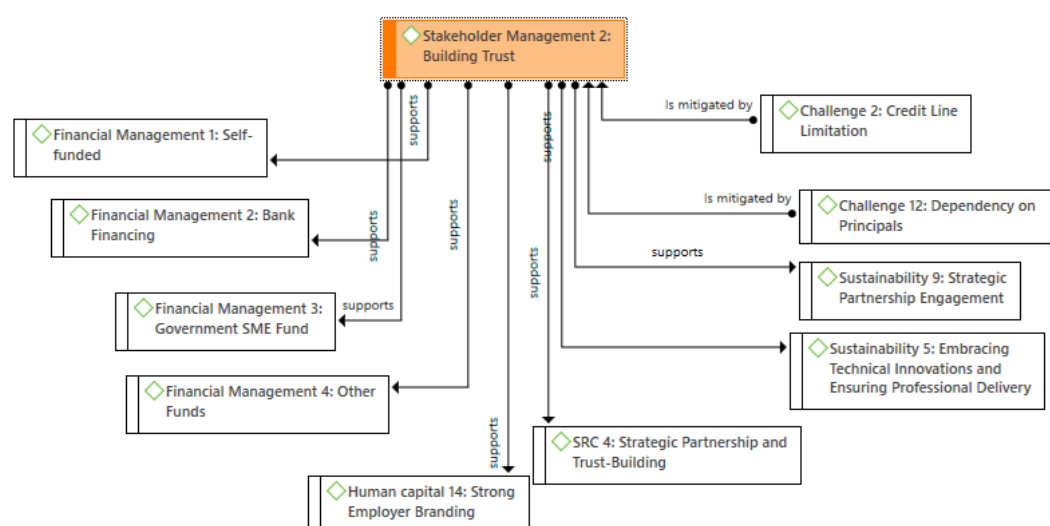
##### a) Understanding Stakeholder Needs



**Figure 4.11 (RQ2) Stakeholder Management Themes: Understanding Stakeholder Needs**

Understanding stakeholder needs is central to navigating business sustainability, addressing evolving consumer behaviors, and enhancing product or service value. This understanding fosters stakeholder innovation synergies and supports strategic customer engagement, aligning solutions with customer pain points to deliver substantial value. Moreover, it enables a business to counteract challenges such as direct selling from principals by creating unique, customer-centric offerings that reflect deep market insight and adaptability. This comprehensive approach is vital for maintaining relevance and fostering long-term stakeholder relationships, ensuring continuous strategic and customer-centric innovation.

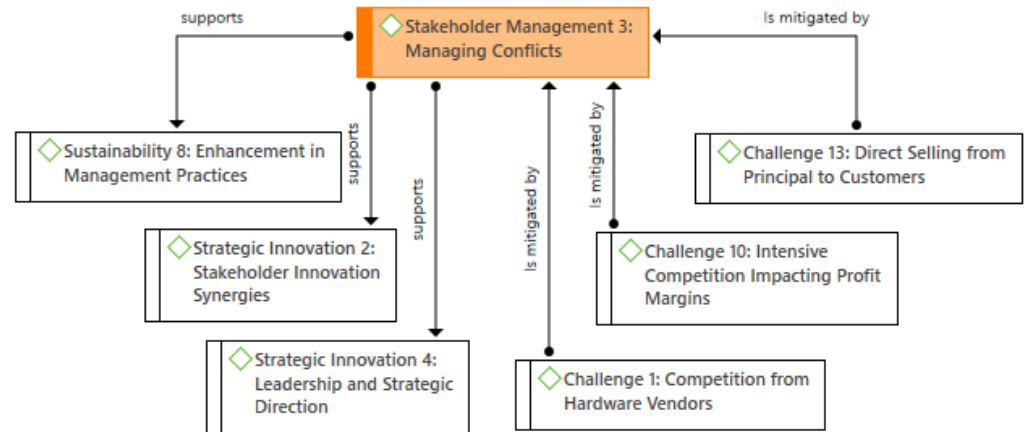
## b) Building Trust



**Figure 4.12 (RQ2) Stakeholder Management Themes: Building Trust**

Building trust is crucial across multiple facets of business operations. It anchors employer branding by establishing a company as a reliable place to work, which in turn attracts quality talent. In financial management, trust gained from banks, other funds, and government SME funds can lead to more favorable financing options. Overcoming credit line limitations often hinges on the trustworthiness of the business, as seen by financial institutions or distributors. Trust also plays a significant role in forming and maintaining strategic partnerships, which are vital for sustained business operations. Furthermore, dependency on principals can be mitigated by cultivating a trusted brand, ensuring partners are more committed and less likely to bypass the reseller and reach out to customers. Trust underpins the successful adoption of technological innovations, ensuring stakeholders believe in the company's ability to deliver professionally. In summary, building trust is interwoven with success in various areas, including financial stability, strategic collaborations, and operational sustainability.

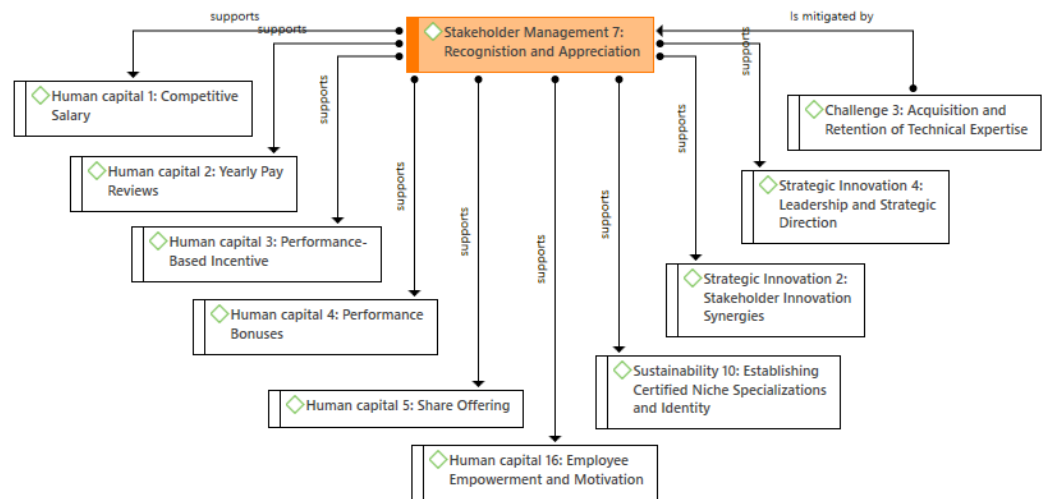
### c) Managing Conflicts



**Figure 4.13 (RQ2) Stakeholder Management Themes: Managing Conflicts**

It is crucial to understand how these SMEs manage the conflicts arising from competitive pressures, such as those from hardware vendors and the trend of direct selling from principals to customers. These conflicts, if unmanaged, can severely impact profit margins and undermine the resellers' position in the market. Moreover, the role of enhanced management practices becomes apparent in mitigating these conflicts, promoting an environment that favours stakeholder innovation synergies and strategic leadership. Addressing these challenges through effective conflict management is essential for the sustainable growth of ICT resellers and is a fundamental element of the proposed BMI framework. It reflects the dynamic interplay between managing immediate business pressures and steering towards long-term strategic goals within the Malaysian ICT reselling industry.

#### d) Recognition and Appreciation



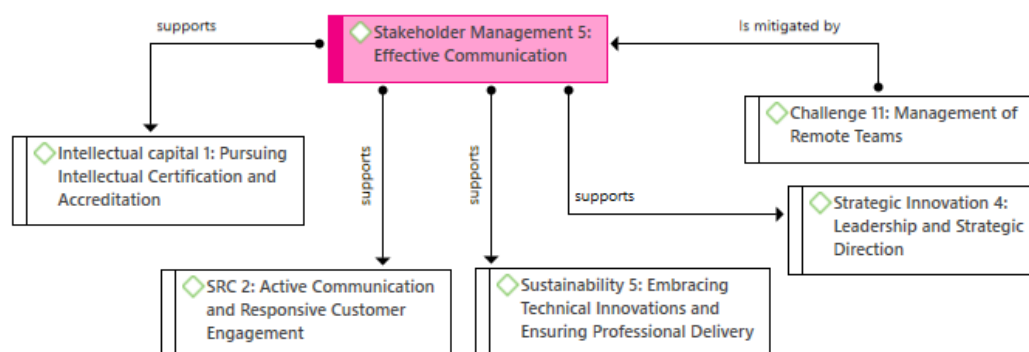
**Figure 4.14 (RQ2) Stakeholder Management Themes: Recognition and Appreciation**

Being an SME, recognition and appreciation are key components of stakeholder management, directly influencing the motivation and retention of valuable human capital. Practices such as performance bonuses, yearly pay reviews, share offerings, and performance-based incentives are tangible ways these businesses acknowledge the contributions of their team members. Beyond financial rewards, stakeholder innovation synergies and strategic leadership play pivotal roles in establishing certified niche specialisations, providing employees with a sense of identity and pride in their work, further empowering them. This framework of recognition fosters an environment where employees are not only motivated by financial gain but also driven by the desire to advance and excel within their roles, ensuring the SMEs' growth and their ability to compete in the ICT market.



#### 4.6.8.2 Strategic Engagement

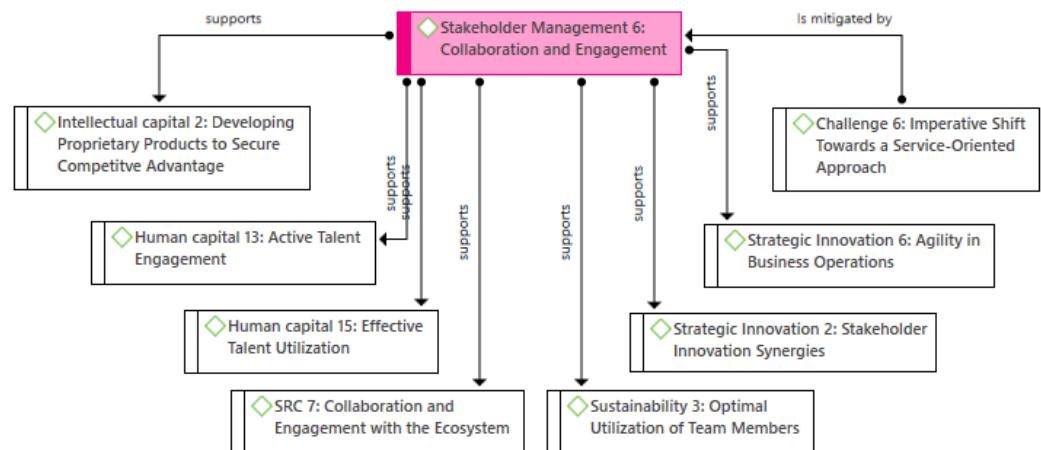
##### e) Effective Communication



**Figure 4.15 (RQ2) Stakeholder Management Themes: Strategic Engagement- Effective Communication**

For ICT reseller SMEs, effective communication is the linchpin that connects the stakeholders, including the management of remote teams, the pursuit of intellectual certification, and the adoption of technical innovations. It's about ensuring that team members, wherever they are, stay aligned with company goals and maintain productivity. It also means that the business's pursuit of certifications and accreditations is well-articulated and understood internally and externally, bolstering the company's reputation. Moreover, effective communication underpins the delivery of technical innovations to customers, ensuring that solutions are professionally delivered and clearly explained and supported. Active, responsive engagement with customers solidifies relationships, builds trust, and is essential for customer satisfaction and retention in the competitive ICT sector. Strategic leadership further enhances this communication by steering the organisation's strategic direction, ensuring all stakeholders are harmonized towards common goals.

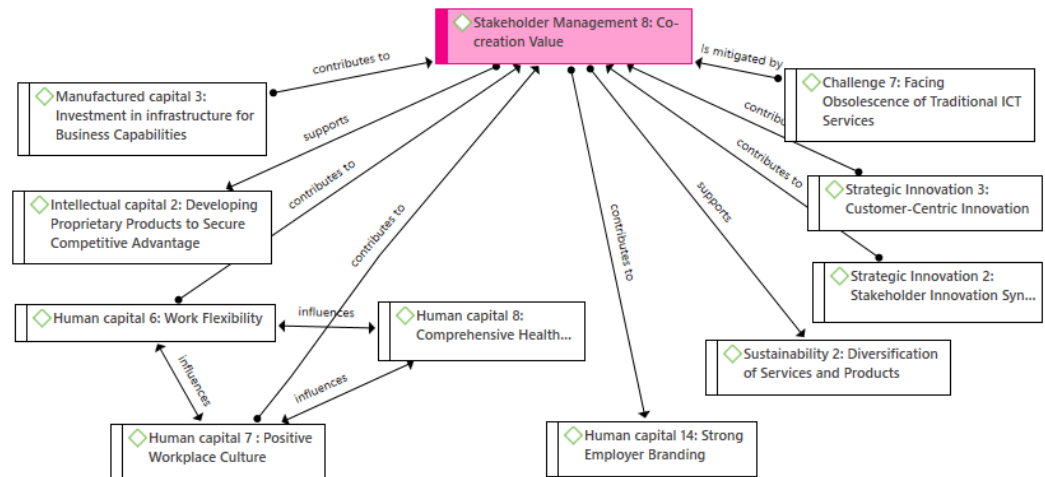
## f) Collaboration and Engagement



**Figure 4.16 (RQ2) Stakeholder Management Themes: Strategic Engagement- Collaboration and Engagement**

Collaboration and engagement are essential strategies for aligning with the shift towards service-oriented business models, fostering innovation through the development of proprietary products, and maximizing team member contributions. Effective collaboration with the business ecosystem, a core aspect of stakeholder innovation synergies, allows these SMEs to leverage collective expertise and relationships, ensuring the development of solutions that offer a competitive edge. Engaging actively with talent—both within the organisation and in the broader community—enables optimal utilization of skills and drives the performance necessary to thrive in the fast-paced ICT sector. This collaborative and engagement-focused approach, enhanced by agility in business operations, is fundamental for ICT resellers aiming to sustain growth and adapt to the changing market demands.

## g) Co-creation Value



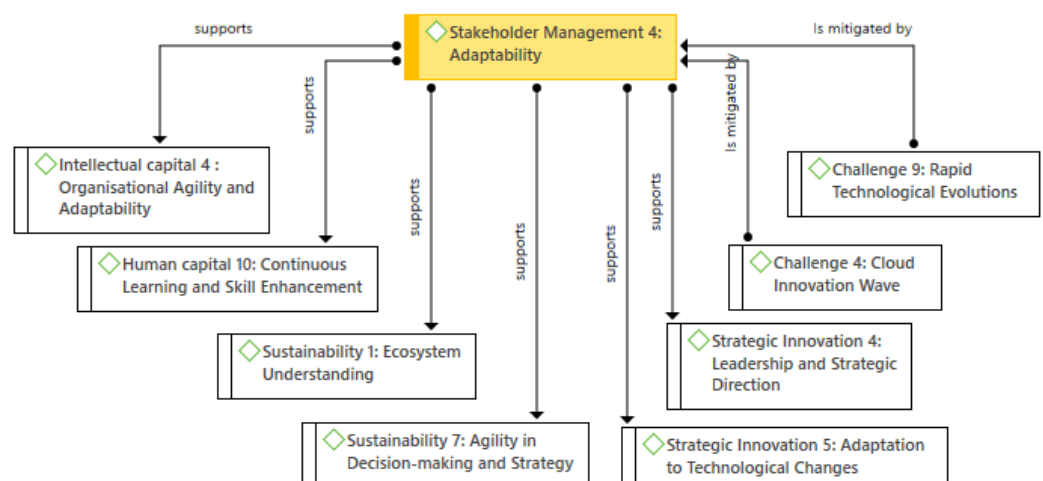
**Figure 4.17 (RQ2) Stakeholder Management Themes: Strategic Engagement- Co-creation Value**

In the realm of ICT reseller SMEs, actively engaging with stakeholders to understand their needs and co-create value is essential for mutual benefit and innovation in products and services. This research highlights how strategic investments in infrastructure, as part of stakeholder innovation synergies, significantly contribute to value co-creation by equipping businesses with the necessary operational tools and technological support. Such infrastructure supports current activities and lays the groundwork for future service expansions and innovations. Developing proprietary products, enhanced by customer-centric innovation, plays a crucial role in this co-creative process. By introducing unique products, the company secures a competitive edge and ensures its offerings remain distinctive in the market. This innovation is pivotal in maintaining market relevance and expanding market share. Employee-centric policies like work flexibility, comprehensive health coverage, and a positive workplace culture are integral to co-creating value. These policies foster a supportive environment that enhances employee morale and productivity, directly impacting the company's internal and external success.

Co-creation of value significantly strengthens employer branding. A robust employer brand attracts top talent and enhances the company's reputation, bolstering its competitive position. Furthermore, this approach supports the diversification of services and products, allowing the company to explore new markets and customer segments, thus reducing dependency on traditional business models that may face obsolescence. Strategic diversification is key in mitigating risks associated with outdated ICT services and ensures the company remains agile and responsive to dynamic market conditions.

#### 4.6.8.3 Operational Excellence

##### h) Adaptability

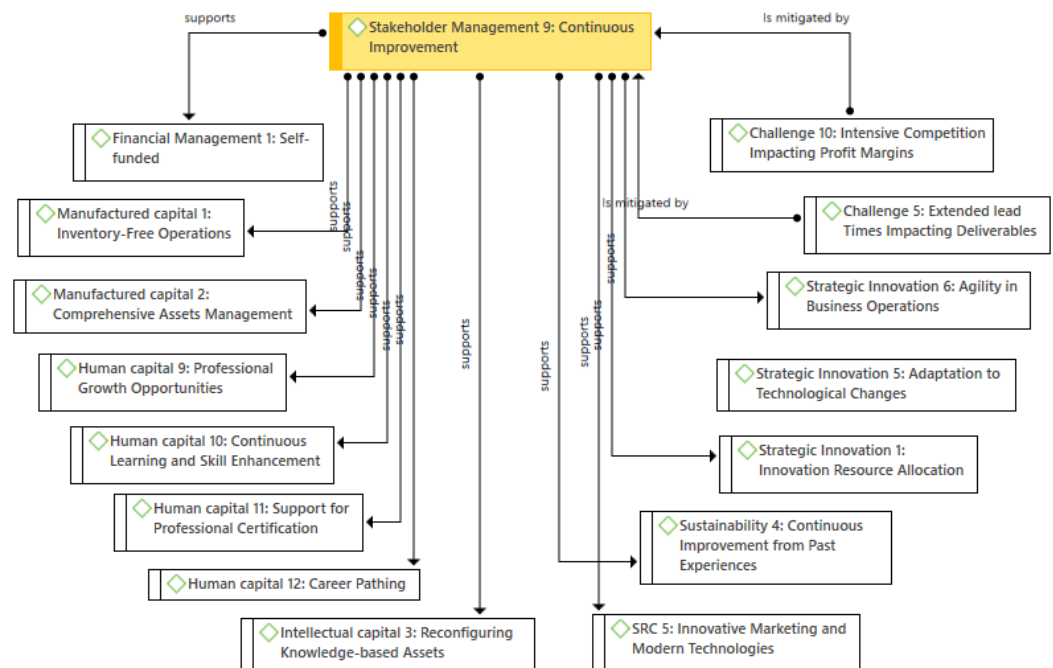


**Figure 4.18 (RQ2) Stakeholder Management Themes: Operational Excellence- Adaptability**

In the landscape of ICT reseller SMEs, adaptability is essential for navigating the rapid technological shift, such as cloud innovation. This adaptability must be anchored in strategic leadership that can quickly adjust to new trends and a corporate culture promoting technological agility. It involves a dynamic understanding of the ecosystem, organisational agility, informed decision-making, and continuous learning to capitalize on emerging opportunities. Such adaptability not only maintains the relevance of the business model but also enhances the

company's capacity to meet evolving stakeholder demands, thereby ensuring sustainable growth and maintaining competitiveness in the sector.

## i) Continuous Improvement

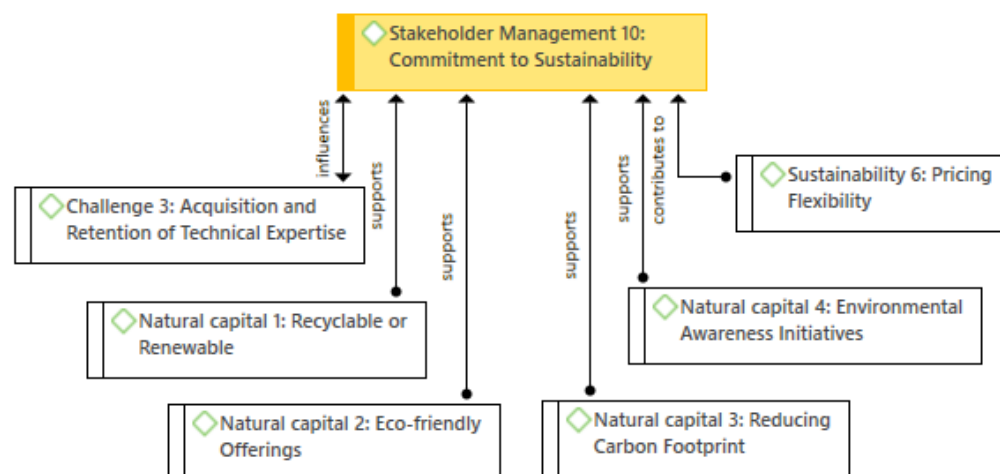


**Figure 4.19 (RQ2) Stakeholder Management Themes: Operation Excellence- Continuous Improvement**

For ICT reseller SMEs, stakeholder management significantly underpins operational excellence by fostering a culture of continuous improvement. This strategic focus is critical in allocating resources for innovation, adapting seamlessly to technological changes, and maintaining agility in business operations. It involves leveraging innovative marketing and modern technologies to stay ahead in a competitive market, supporting employees through professional certification and growth opportunities, and managing assets effectively. Continuous learning, skill enhancement, and clear career pathing keep the workforce agile and proficient, ready to adapt to new challenges like inventory management and shifting market demands. This commitment to improvement helps navigate financial self-funding and tackle challenges such as extended lead times and intense competition that could squeeze profit margins. In essence, continuous improvement is a holistic

approach that drives the SMEs' internal processes and workforce development and shapes how they interact with the market and their broader stakeholder community.

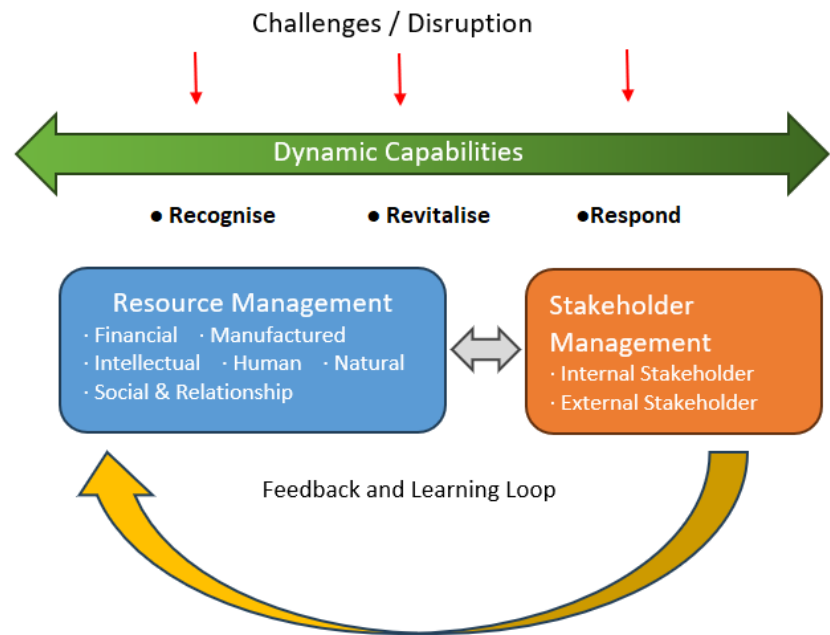
#### j) Commitment to Sustainability



**Figure 4.20 (RQ2) Stakeholder Management Themes: Operational Excellence- Commitment to sustainability**

ICT reseller SMEs' commitment to sustainability is anchored in the balanced consideration of people, planet, and profit—often referred to as the triple bottom line. By focusing on the acquisition and retention of skilled technical experts, these SMEs invest in their people, ensuring a knowledgeable and capable workforce to drive innovation and service quality. Regarding the planet, initiatives like adopting recyclable materials, offering eco-friendly products, and implementing measures to reduce carbon emissions show a responsibility towards environmental conservation. These efforts resonate with a growing consumer base that favours green business practices. Finally, maintaining pricing flexibility allows these SMEs to remain financially viable and competitive, securing profit while adapting to market trends and economic shifts. Together, these stakeholder management foster a sustainable business model that supports long-term success and aligns with the broader societal shift towards sustainability.

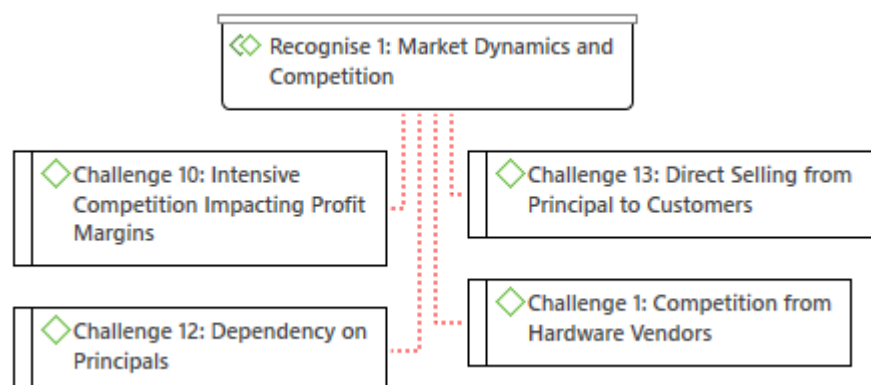
#### 4.6.9 Dynamic Capabilities



**Figure 4.21 (RQ2) Themes: Dynamic Capabilities – BMI Framework for Business Sustainability**

##### 4.6.9.1 Recognise

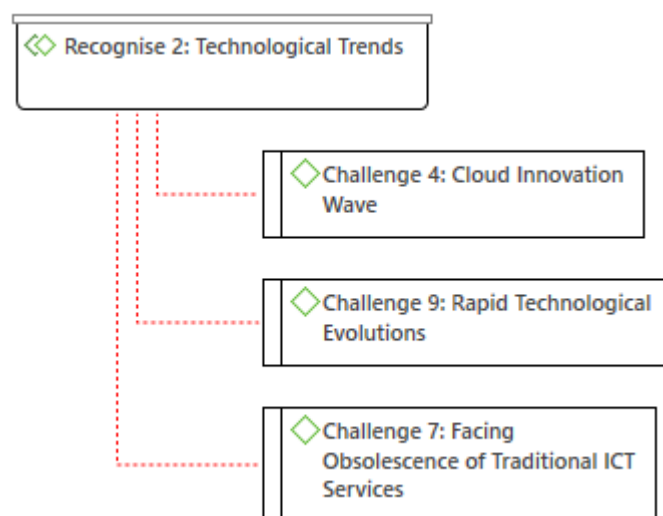
“Recognise” is a critical initial step in the dynamic capabilities framework, which allows ICT reseller SMEs in Malaysia to gather and interpret vital information from their operating environment effectively. The key areas for sensing have been identified directly from the challenges these SMEs face, as detailed in section 4.4. These challenges are categorised into four main areas: Market Dynamics and Competition, Technological Trends, Evolving Consumer Behavior, and Operational Efficiencies Challenges.



**Figure 4.22 (RQ2) Themes: Dynamic Capabilities- Recognise 1- Market Dynamics and Competition**

In the context of dynamic capabilities, the "Recognising" phase is about detecting and interpreting signals from the market that indicate both opportunities and threats. The diagram and data reflect the primary market dynamics and competitive challenges ICT reseller SMEs face in Malaysia. Based on the challenges identified:

- Challenge 1: Competition from Hardware Vendors and Challenge 10: Intensive Competition Impacting Profit Margins have revealed a high degree of market saturation and aggressive pricing strategies that need the ICT reseller to adapt and innovate to maintain margins.
- Challenge 13: Direct Selling from Principal to Customers shows a shift in distribution channels that could bypass traditional resellers, urging these SMEs to reconsider their value propositions and relationship management strategies
- Challenge 12: Dependency on Principals highlights the risks in supply chain or business model that are overly reliant on a principals

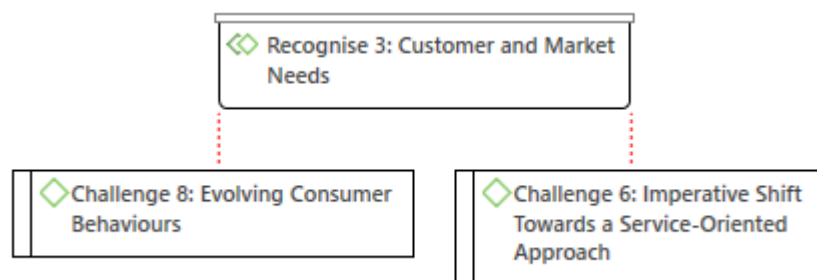




**Figure 4.23 (RQ2) Themes: Dynamic Capabilities- Recognise 2- Technological Trends**

The diagram and data reflect the primary technological trends of ICT reseller SMEs in Malaysia. Based on the challenges identified:

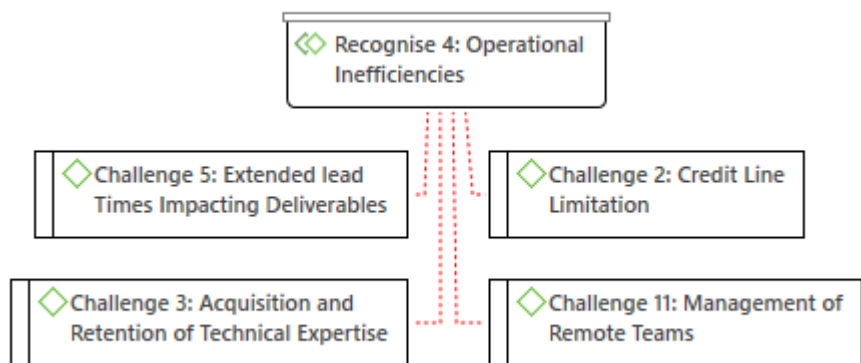
- Challenge 4: Cloud Innovation Wave points to the increasing shift towards cloud-based solutions, which necessitates ICT resellers to adapt their service offerings and perhaps invest in new capabilities to remain competitive
- Challenge 9: Rapid Technological Evolutions represent the broader pace of technological change that pressures ICT resellers to update their technological competencies continuously.
- Challenge 7: Facing the Obsolescence of Traditional ICT Services relates to the risk of the current skills that the resellers have in their environment, which signifies the need to upkeep and capture market interest and demand.



**Figure 4.24 (RQ2) Themes: Dynamic Capabilities- Recognise 3- Customer and Market Needs**

The diagram and data reflect the primary Customer and Market Needs of ICT reseller SMEs in Malaysia. Based on the challenges identified:

- Challenge 8: Evolving Consumer Behaviours captures the changing preferences and expectations of customers influenced by new technologies, enhanced service standards and increased market knowledge
- Challenge 6: Imperative Shift Towards a Service-Oriented Approach pointed out the market's demand for more integrated and service-based rather than traditional product-only offerings.



**Figure 4.25 (RQ2) Themes: Dynamic Capabilities- Recognise 4- Operational Efficiencies Challenges**

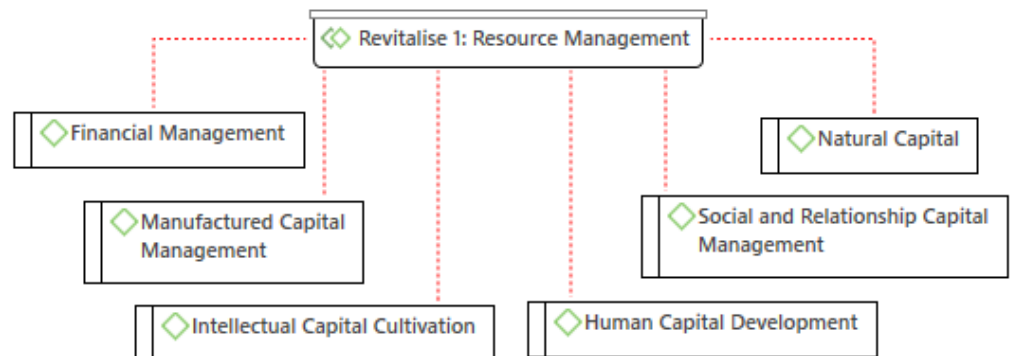
The diagram and data reflect the primary operational efficiencies challenges of ICT reseller SMEs in Malaysia. Based on the challenges identified:

- Challenge 5: Extended Lead Times Impacting Deliverables demonstrates the issue with supply chain and logistical inefficiencies that can affect the reputation or penalty imposed by the customers
- Challenge 2: Credit Line Limitation points to the financial constraints that will lead to purchasing power and maintaining a healthy operational flow

- Challenge 3: Acquisition and Retention of Technical Expertise signifies the difficulties in getting and maintaining the skilled professionals who are essential in driving innovation and service excellence that lead to human management
- Challenge 11: Management of Remote Teams shows the challenges of effective management in coordinating with increasing remote work practices.

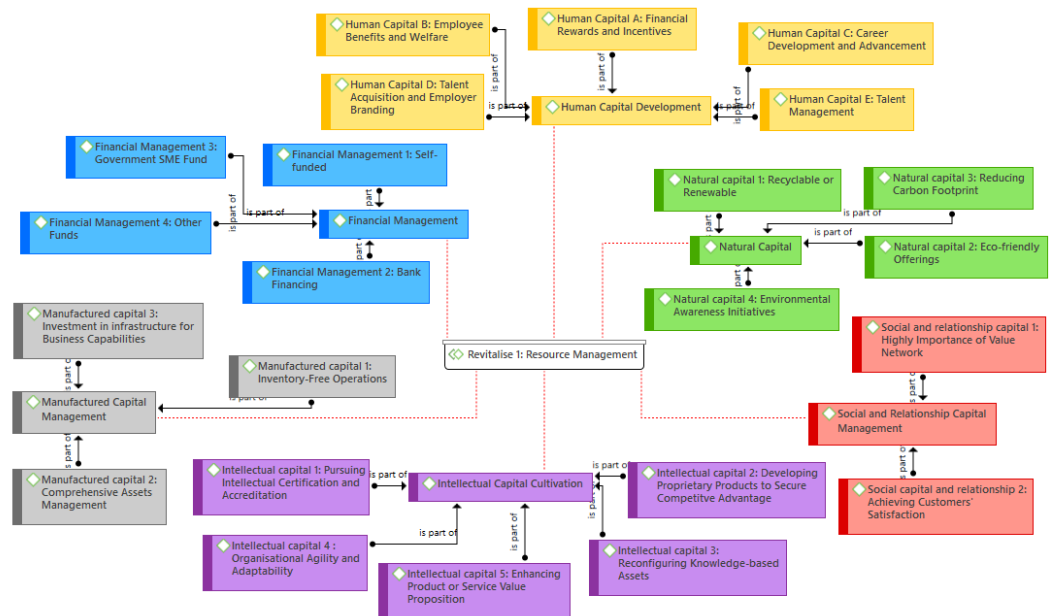
#### 4.6.9.2 Revitalise

“Revitalise” imply a focus on renewing or improving existing processes, resources, or strategies to adapt to new challenges or capitalize on emerging opportunities. This aspect is crucial because it bridges the understanding gained from "Recognise" (sensing and identifying opportunities and threats) and prepares the groundwork for "Respond" (taking strategic actions based on this understanding). This phase ensures that the business optimally leverages its resources management and stakeholder relationships to enhance its competitive positioning and effectively address potential challenges. Additionally, it focuses on developing and strengthening internal capabilities to ensure sustainable growth and resilience.



**Figure 4.26 (RQ2) Themes: Dynamic Capabilities- Revitalise 1- Resource Management**

Resource management under “Revitalise 1” includes using various capitals- financial, manufactured, intellectual, human, social and relationship, and natural- to enhance business operations and competitive advantage.



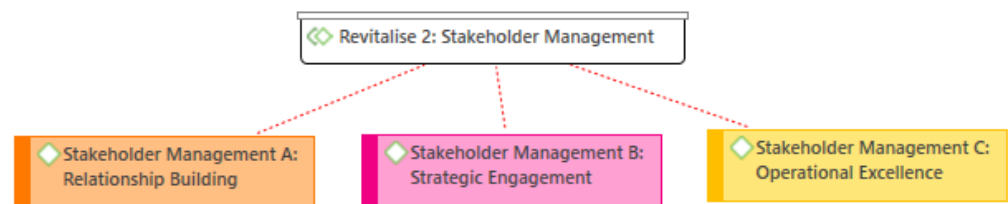
**Figure 4.27 Themes: Dynamic Capabilities- Revitalise 1- Resource Management (Expanded view)**

**Error! Reference source not found.** shows the research findings on the specific management practices under each type of capital:-

- **Financial Management:** Strategies like self-funding, bank financing, and government SME funding allow firms to maintain financial health and invest in growth areas.
- **Manufactured Capital Management:** Investments in infrastructure and inventory-free operations enhance operational capabilities and efficiency.
- **Intellectual Capital Cultivation:** Activities such as pursuing certifications, developing proprietary products, and enhancing value

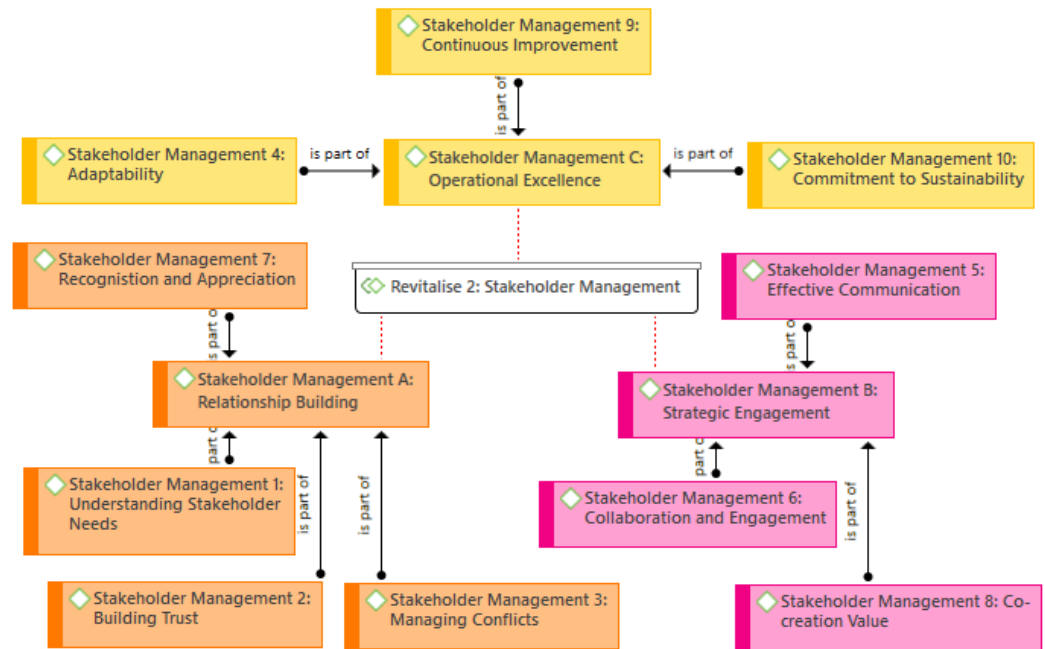
propositions ensure the company maintains a competitive edge through innovation and expertise.

- **Human Capital Development:** Engaging practices such as offering incentives, fostering a positive workplace culture, and focusing on career development help attract, develop, and retain skilled employees, which are critical for driving the company's growth.
- **Social and Relationship Capital:** The ongoing effort of building the value network and achieving customers' satisfaction.
- **Natural Capital Management:** Initiatives like reducing carbon footprints and promoting eco-friendly offerings align the business with environmental sustainability standards and expectations.



**Figure 4.28 (RQ2) Themes: Dynamic Capabilities- Revitalise 2- Stakeholder Management**

Stakeholder management in the "Revitalise 2" phase involves strategically enhancing human capital and relationships to maximize business outcomes. This management function is vital for ensuring that all interactions with stakeholders—from customers and suppliers to employees and partners—are handled in a way that fosters trust, collaboration, and mutual benefit.

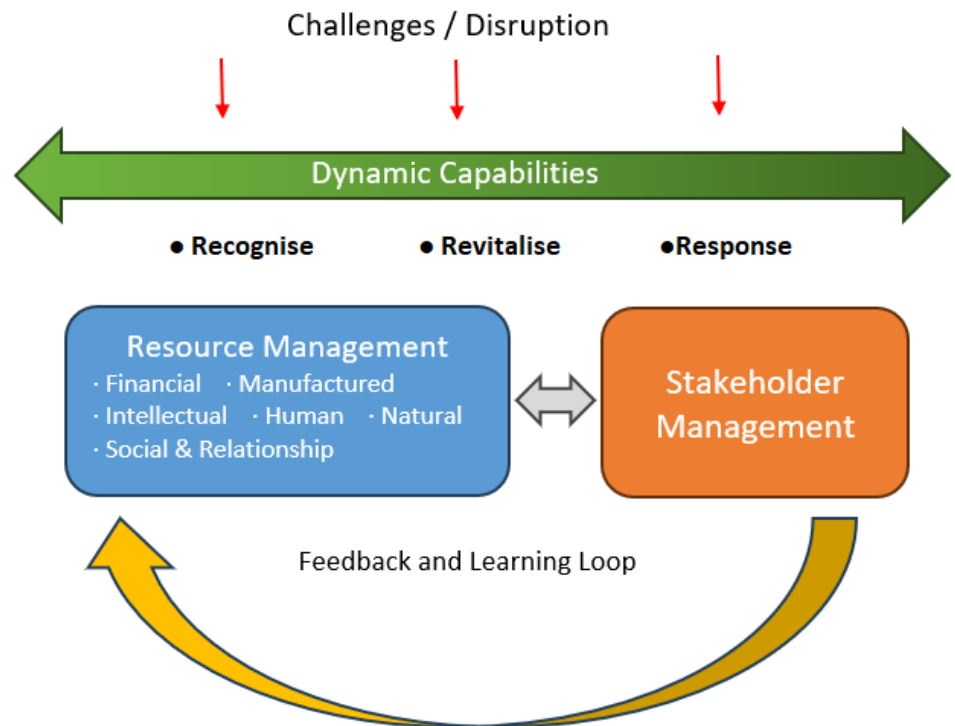


**Figure 4.29 (RQ2) Themes: Dynamic Capabilities- Revitalise 2- Stakeholder Management (Expanded View)**

Figure 4.29 shows the research findings on the components of stakeholder management that are categorised under three components under different colours:-

- **Relationship building:** Establishing strong connections with stakeholders by understanding their needs and expectations. This includes building trust, managing conflicts, and providing recognition and appreciation, which are fundamental to long-term business relationships and ensure stakeholders feel valued and understood.
- **Strategic engagement:** Involves communicating effectively with stakeholders to ensure that all parties are aligned with the business's strategic goals. It includes promoting collaboration and engagement that directly contribute to co-creating value.
- **Operational excellence:** Ensures that the interactions and engagements with stakeholders are not just strategic but also

optimized for operational efficiency. This involves adaptability, continuous improvement, and a commitment to sustainability.



**Figure 4.30 (RQ2) Themes: Dynamic Capabilities with Resource Management and Stakeholder Management**

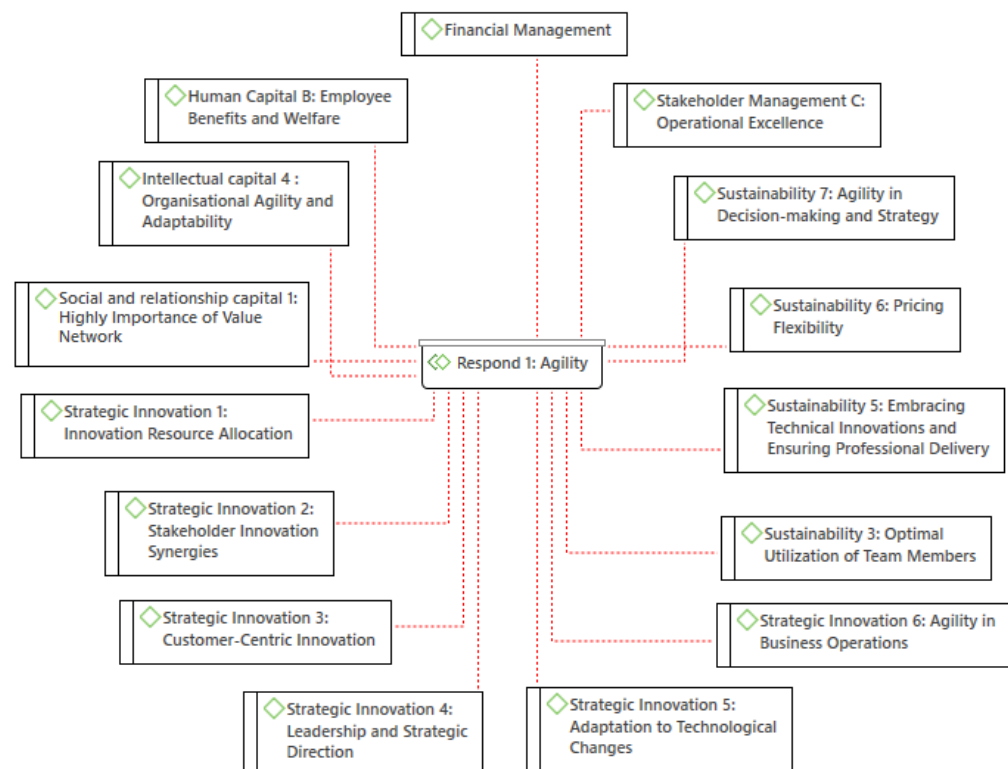
Both Revitalise 1: Resource Management and Revitalise 2: Stakeholder Management deeply integrate with each other. Example of how stakeholder management enhances resource management:

- Co-creation of value: By aligning stakeholder interests with business operations, companies can co-create value that enhances the company's offerings. This might involve joint ventures, partnerships, or collaborative innovation, all of which utilize various capitals more effectively.
- Feedback and learning loops: Stakeholder interactions provide critical feedback that can be used to improve business processes (operational excellence) and product offerings (intellectual and

manufactured capital). This feedback loop is essential for continuous improvement and innovation.

#### 4.6.9.3 Respond

The “Respond” phase in BMI for ICT reseller SMEs Malaysia encapsulates strategic actions taken to utilise insights from the “Revitalise” phase, which is about understanding and harnessing the firm’s resources and capabilities. This final step is crucial for applying strategic, operational and relational adjustments necessary to drive agility, growth and resilience within the organisation.



**Figure 4.31 (RQ2) Themes: Respond 1: Agility**

Figure 4.31 Respond 1: Agility phase in the BMI framework for ICT reseller SMEs in Malaysia emphasises the importance of agile responses to the dynamic market environment. This phase groups together various elements, demonstrating the firm’s ability to swiftly adjust and innovate in response to changes and

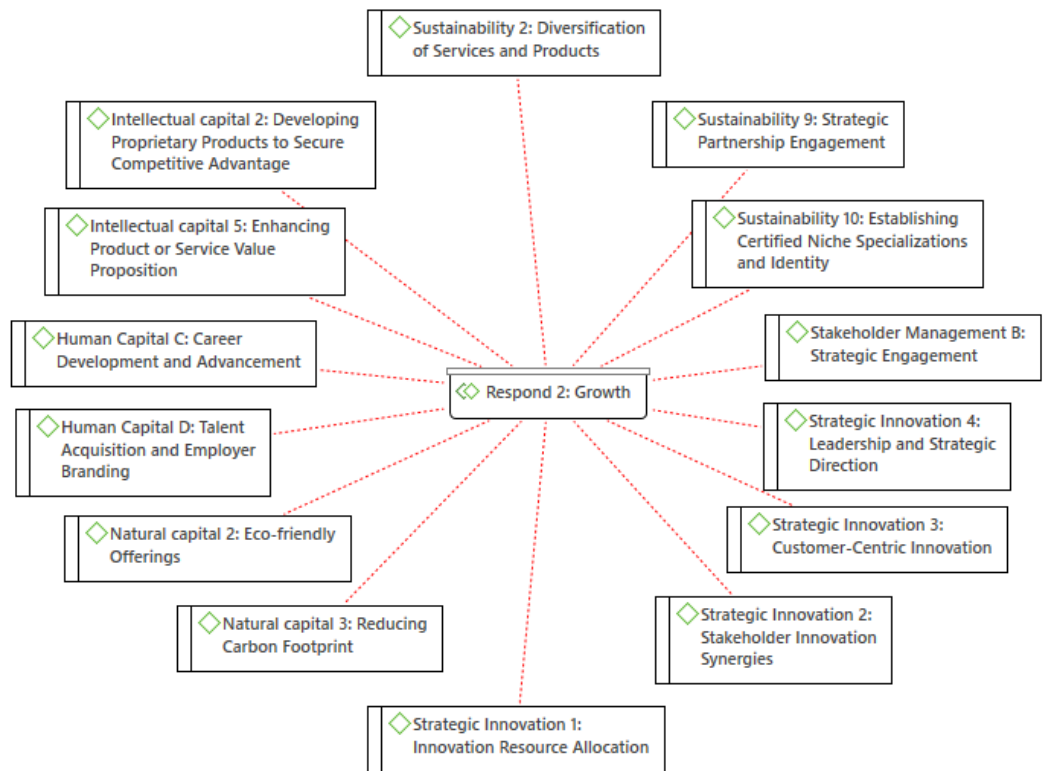


opportunities, which is crucial for maintaining competitiveness and ensuring sustainability.

- Financial Management (Self-funded and Diversifying Financial Sources)- This theme shows financial agility by ensuring liquidity and access to capital for rapid response to market opportunities or market expansion strategies.
- Human Capital B: Employee Benefits and Welfare (Work Flexibility)- This supports a flexible workforce capable of adapting to changing demands.
- Intellectual Capital 4: Organisational Agility and Adaptability- This reflects the internal capabilities of the organisation to be flexible and responsive to changes. It involves restructuring operations, processes, and even business models to align with the current market and technological landscapes.
- Social and Relationship Capital 1- High Importance of Value Network: Agility is also supported by strong relationships and networks that provide strategic insights and opportunities. A well-established network can offer rapid access to resources, information, and collaborations, accelerating response times to market changes.
- Strategic Innovation 1: Innovation Resource Allocation and Strategic Innovation 2: Stakeholder Innovation Synergies - These focus on optimally allocating resources and enhancing stakeholder synergies to foster innovative solutions and strategic advancements.
- Strategic Innovation 3: Customer-Centric Innovation – This centres on developing products and services that meet customer needs, enhancing satisfaction and loyalty.

- Strategic Innovation 4: Leadership and Strategic Direction – This shows the need for leadership that drives a culture of quick adaptation and strategic foresight.
- Strategic Innovation 5: Adaptation to Technological Changes and Strategic Innovation 6: Agility in Business Operations - These innovations ensure the company is proactive in integrating cutting-edge technologies and maintaining operational agility to stay ahead in the industry.
- Sustainability 7: Agility in Decision-making and Strategy- This element underscores the importance of quick, strategic decision-making processes that allow the business to pivot and adapt to fast-changing market conditions. It involves evaluating market trends and making decisions that align with long-term strategic goals while responding to immediate needs.
- Sustainability 6: Pricing Flexibility- This allows the business to quickly adjust pricing strategies to meet market demands and conditions, which is crucial for staying competitive and managing profitability under varying economic circumstances.
- Sustainability 5: Embracing Technical Innovations and Ensuring Professional Delivery - This involves adopting and integrating new technologies into service delivery, ensuring that the business not only stays current with technological advancements but also delivers these innovations effectively to its customers.
- Sustainability 3: Optimal Utilization of Team Members- Agile businesses effectively leverage their human resources by ensuring that team members are utilized in roles that maximize their skills and impact, adapting roles and responsibilities as needed to meet strategic objectives.

- Stakeholder Management C: Operational Excellence (Adaptability)- This reflected that operational processes are flexible and can be modified as required by shifting circumstances.



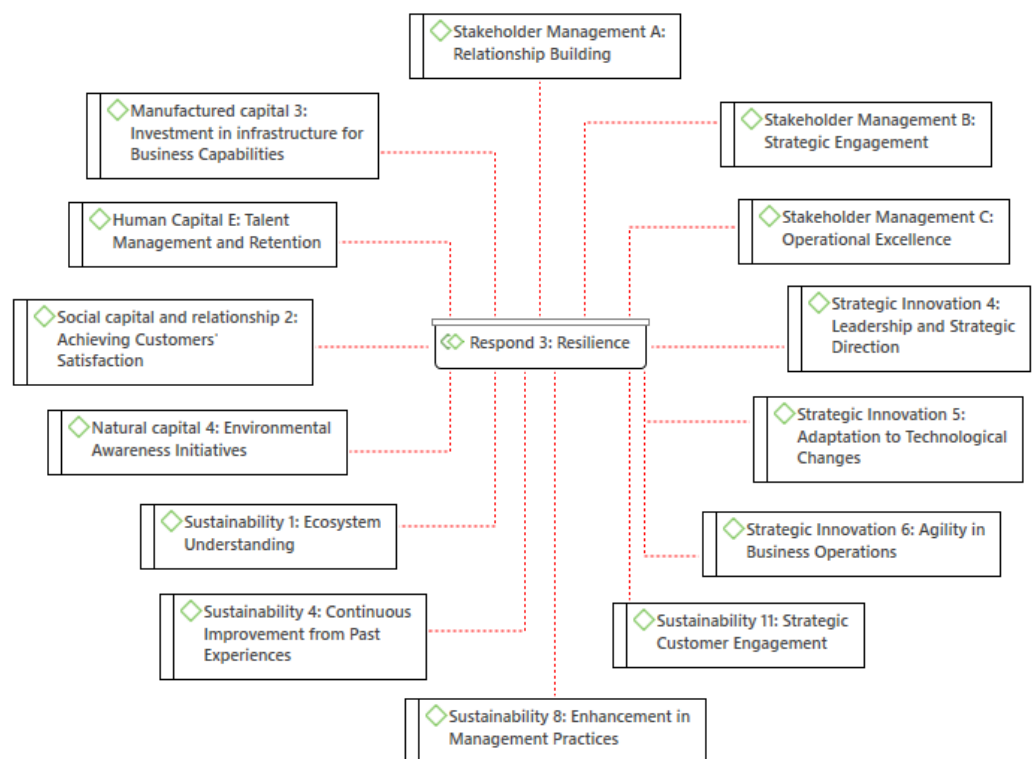
**Figure 4.32 (RQ2) Themes: Respond 2: Growth**

Figure 4.32 (RQ2) Themes: Respond 2: Growth encapsulates the strategic elements essential for ICT reseller SMEs' expansion and long-term growth. This grouping highlights how interconnected strategies and operational tactics drive substantive business growth. Below shows how the element contributes:-

- Intellectual Capital 2: Developing Proprietary Products to Secure Competitive Advantage and Intellectual 5: Enhancing Product or Service Value Proposition – These themes are critical in establishing a market differentiator, which attracts premium pricing and customer loyalty, enhancing revenue streams and market share

- Human Capital C: Career Development and Advancement and Human Capital D: Talent Acquisition and Employer Branding – These reflected that investing in human capital ensures a skilled and innovative workforce that is crucial for developing new solutions and improving the existing ones to support business expansion and adaptability.
- Natural Capital 2: Eco-friendly Offerings and Natural Capital 3: Reducing Carbon Footprint – These initiatives, even though less focused by the ICT resellers, resonate with the growing demand for environmentally friendly products, opening up new markets and enhancing company reputation that supports growth.
- Stakeholder Management B: Strategic Engagement and Sustainability 9: Strategic Partnership Engagement – It helps to forge partnerships that expand business capabilities and access to new markets.
- Strategic Innovation 1: Innovation Resource Allocation, Strategic Innovation 2: Stakeholder Innovation Synergies, Strategic Innovation 3: Customer-Centric Innovation - These initiatives drive long-term growth through allocating resources strategically, synergistic collaborations, and improved customer satisfaction.
- Strategic Innovation 4: Leadership and Strategic Direction – This strategy is pivotal in steering the company towards growth opportunities and ensuring the company remain agile, proactive and responsive to market changes and challenges.

- Sustainability 10: Establishing Certified Niche Specialisations and Identity – It enhances growth by differentiating the business and penetrating new market segments.
- Sustainability 2: Diversification of Services and Products- This theme underscores the importance of expanding product lines and services to tap into new market segments. It helps mitigate risks associated with market fluctuations and dependence on specific products, fostering steady growth.



**Figure 4.33 (RQ2) Themes: Respond 3: Resilience**

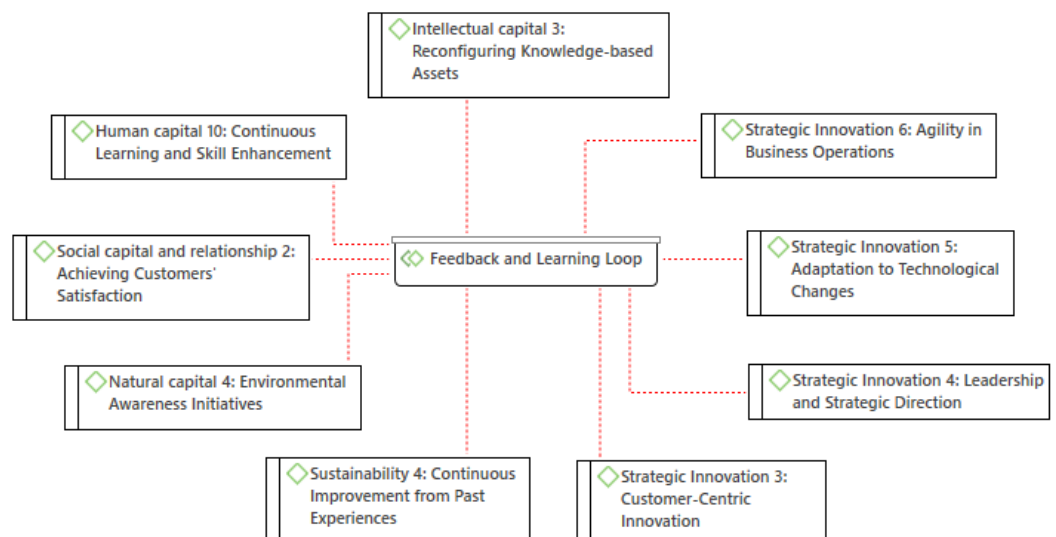
Figure 4.33 (RQ2) Themes: Respond 3: Resilience reflects the core strategies and practices that enhance ICT reseller SMEs' robustness and adaptive capacity. Each identified theme within this segment plays a crucial role in building resilience, enabling the business to withstand and adapt to various challenges and changes in the market.

- Manufactured capital 3: Investment in infrastructure for Business Capabilities – This underscores the importance of robust infrastructure as foundational to business operations, enabling flexibility and responsiveness to market changes, thereby enhancing resilience.
- Human Capital E: Talent Management and Retention- Building a resilient workforce that can sustain performance under and drive recovery is important.
- Natural Capital 4: Environmental Awareness Initiatives- This is a long-term resilience against environmental risks and enhancing brand reputation
- Sustainability 1: Ecosystem Understanding and Sustainability 11: Strategic Customer Engagement- These reflect the firm's ability to align its strategies with ecological and market dynamics, which are essential for anticipating changes and adapting strategies accordingly.
- Sustainability 4: Continuous Improvement from Past Experiences and Sustainability 8: Enhancement in Management Practices: This underscores that the organisation remains agile and can refine its approach based on real-world experiences and feedback, crucial for long-term resilience.
- Strategic Innovation 4: Leadership and Strategic Direction, Strategic Innovation 5: Adaptation to Technological Changes, Strategic Innovation 6: Agility in Business Operations - These strategic innovations ensure that leadership is well-equipped to guide the company through shifts and challenges, adapt to technological

changes swiftly, and maintain operational agility to respond to market demands quickly

- Stakeholder Management A: Relationship Building, Stakeholder Management B: Strategic Engagement, Stakeholder Management C: Operational Excellence- These elements of stakeholder management ensure that the firm maintains strong, collaborative relationships with all stakeholders, facilitating mutual support and rapid response capabilities in times of need.

#### 4.6.9.4 Feedback and Learning Loop



**Figure 4.34 (RQ2) Themes: Feedback and Learning Loop**

The concept of feedback and learning loops is integral to understanding and enhancing the dynamic capabilities within a business. In the context of ICT reseller SMEs, these loops can be identified within various themes from the research that focus on continuous improvement, adaptation, and the evaluation of processes and strategies as Figure 4.34.

- Intellectual Capital 3: Reconfiguring Knowledge-based Assets- This indicates the learning and adapting intellectual resources to better

suit the changing markets demands and operation needs of the ICT resellers.

- Human Capital 10: Continuous Learning and Skill Enhancement – This theme focuses on the ongoing development of staff, which is a direct representation of learning loops.
- Social capital and relationship 2: Achieving Customers' Satisfaction – This is a cycle of understanding customers, engaging feedbacks to improve service delivery and client satisfaction
- Natural Capital 4: Environmental Awareness Initiatives – This is ongoing consciousness of the environmental strategies
- Sustainability 4: Continuous Improvement from Past Experiences- This theme directly implies learning from past actions and refining strategies accordingly
- Strategic Innovation 3: Customer-Centric Innovation and Strategic Innovation 5: Adaptation to Technological Changes: This indicates the need for feedback loops to get customer feedback while continuously learning and integrating technological advancement.
- Strategic Innovation 4: Leadership and Strategic Direction – This emphasises steering the organisation through actively engaging in feedback and learning to continually refine direction and enhance leadership practices.
- Strategic Innovation 6: Agility in Business Operations – This ensures the business remains flexible and responsive to operational challenges through ongoing adjustments and innovations.



## **4.7 Conclusion**

The findings from Chapter 4 set the stage for Chapter 5, where the focus will shift to discussing these insights in greater depth, formulating recommendations, and concluding the study. Chapter 5 will address research question 3, recommending a comprehensive Business Model Innovation (BMI) framework for business sustainability that leverages the identified elements and strategies to enhance the sustainable growth of ICT reseller SMEs in Malaysia. This framework will incorporate practical recommendations based on the research findings, aiming to guide these SMEs in navigating the challenges and leveraging opportunities for long-term success.

# **CHAPTER 5**

## **DISCUSSIONS, RECOMMENDATION AND CONCLUSION**

### **5.1 Introduction**

This chapter synthesizes the key findings from the research and relates them to the existing literature and theoretical frameworks discussed earlier in the study. The aim is to provide a comprehensive analysis of the data and draw meaningful insights that answer the research questions posed. The chapter begins with a recapitulation of the research purpose and the identified research gap; followed by a discussion summarizing the findings and results based on the research questions, including the proposal of the BMI framework. Finally, the chapter highlights the study's contributions, outlines its limitations, and provides suggestions for future research.

### **5.2 Recapitulation of the Findings**

The current research aims to establish a BMI framework tailored to support the business sustainability of ICT reseller SMEs in Malaysia. These SMEs operate in a rapidly evolving industry characterised by significant challenges, including market dynamics and competition, technological trends, evolving customer and market needs, and operational inefficiencies. The sustainability of ICT resellers is increasingly challenged by these factors, compounded by the digital transformation that has accelerated due to the pandemic. This transformation has pressured these businesses to adapt quickly or risk becoming obsolete. The ICT reselling sector, which once relied heavily on hardware sales, now faces the imperative to innovate

its business models to include value-added services, cloud solutions, and other technological innovations to sustain its market relevance and competitive edge.

ICT resellers play a critical role in the national economy, particularly in supporting the digital transformation of various industries. With the recent surge in AI technologies, the imperative to re-evaluate and adapt existing business models has become even more pronounced. While most existing studies predominantly examine larger enterprises or other sectors, with little attention given to the unique challenges ICT resellers face in Malaysia (Müller et al., 2021). The rapid advancements in AI, alongside other technological trends, are reshaping market demands and introducing new operational challenges that many current business models are not fully equipped to handle. As AI continues transforming businesses' operations, from automating processes to enhancing decision-making, ICT resellers must innovate and evolve their business models to remain competitive. This research seeks to bridge this gap by proposing a comprehensive BMI framework incorporating strategic innovation, resource management, stakeholder management, and dynamic capabilities, ensuring the sustainable growth of ICT reseller SMEs in this rapidly changing technological landscape.

As highlighted in Chapter 1, the sustainability of ICT resellers hinges on their ability to innovate and adapt to market and technological changes continuously. The proposed BMI framework addresses these challenges by providing a structured approach to managing the critical elements of business sustainability. The research propositions formulated in this study focus on the necessity of agility, growth, and resilience as pillars supporting the BMI framework. Leadership commitment, strategic direction, and managing resources and stakeholders effectively are essential components for driving business sustainability.

The research was conducted using a qualitative case study approach, focusing on in-depth, semi-structured interviews with twelve ICT resellers in Malaysia. These interviews aimed to uncover the key challenges and business sustainability initiatives these SMEs have undertaken in response to the evolving market and technological landscape. The findings from these interviews were analysed to identify the strategic elements necessary for developing the proposed BMI framework.

The key theoretical foundations underpinning this research include the Resource-Based View (RBV), Stakeholder Theory, and Dynamic Capabilities, which together provide a comprehensive lens for understanding the sustainability challenges and opportunities for ICT resellers. The research gaps identified in the literature review, such as the lack of a clear business model framework for ICT resellers and the need for a more integrated approach to managing resources and stakeholder relationships, were addressed through the development of the BMI framework.

The findings of this study highlight the critical importance of innovation in business models to ensure the sustainability of ICT reseller SMEs. The research revealed that to remain competitive, these businesses must embrace technological innovations, optimize their operations, build strong relationships with stakeholders, and navigate the challenges posed by market dynamics, competition, and evolving customer needs. The proposed BMI framework integrates these insights, offering a strategic tool that ICT resellers can use to navigate the complexities of their industry, sustain growth, and achieve long-term business success.

In conclusion, the research provides a detailed understanding of the strategic initiatives required for the sustainability of ICT reseller SMEs in Malaysia. The BMI framework developed through this study offers a practical guide for these

businesses to innovate, manage resources effectively, engage stakeholders, and adapt to the rapidly changing market environment. This framework is positioned as a vital tool for ensuring the long-term competitiveness and sustainability of ICT resellers in the Malaysian context.

### **5.3 Research Findings Analysis**

This section presents a structured analysis of the research findings, directly linking to the research propositions outlined in Chapter 2. Each theme and sub-theme listed in the table below offer insights how the identified challenges and initiatives are being addressed by ICT reseller SMEs in Malaysia. These findings not only respond to our research questions but also validate and expand upon our initial propositions, illustrating the practical implication of our theoretical framework. By systematically categorising these elements, this analysis highlights the key factors that influence business sustainability and growth, offering clear pathways for innovation within the sector.

#	Research Objectives (RO)	Research Questions (RQ)	Propositions (H)	Analysis Findings (Themes)	Detailed Categories (Sub-themes)
A.	RO1: To examine the challenges experienced by the ICT resellers in sustaining their business in Malaysia	RQ1: What are the challenges experienced by the ICT reseller SMEs in sustaining their business in Malaysia	<b>Proposition #1:</b> ICT reseller SMEs in Malaysia face significant competitive pressure from market dynamics and evolving consumer behaviours, diminishing their value while impacting profit margin and sustainability	<b>Challenges</b> 1. Market Dynamics and Competition 2. Technological Trends 3. Evolving Customer and Market Needs 4. Operational Inefficiencies	<b>1. Market Dynamics and Competition</b> -Competition from Hardware Vendors -Direct Selling from Principal to Customers -Intensive Competition Impacting Profit Margins -Dependency on Principals <b>2. Technological Trends</b> -Cloud Innovation Wave -Rapid Technological Evolutions -Facing Obsolescence of Traditional ICT Services <b>3. Customer and Market Needs</b> -Evolving Consumer Behaviours -Imperative Shift Towards a Service-Oriented Approach <b>4. Operational Efficiencies Challenges</b> -Credit Line Limitation -Acquisition and Retention of Technical Expertise -Extended Lead Times Impacting Deliverables -Management of Remote Teams

#	Research Objectives (RO)	Research Questions (RQ)	Propositions (H)	Analysis Findings (Themes)	Detailed Categories (Sub-themes)
				<b>Business Sustainability Initiatives</b> 1. Market Dynamics and Competition 2. Technological Trends 3. Evolving Customer and Market Needs 4. Operational Inefficiencies	<b>1. Market Dynamics and Competition</b> -Diversification of Services and Products -Pricing Flexibility -Strategic Partnership Engagement -Establishing Certified Niche Specialisations and Identity <b>2. Technological Trends</b> -Embracing Technological Innovations and Ensuring Professional Delivery -Continuous Improvement from Past Experiences <b>3. Customer and Market Needs</b> -Ecosystem Understanding -Strategic Customer Engagement -Agility in Decision-Making and Strategy <b>4. Operational Inefficiency</b> -Optimal Utilization of Team Members -Enhancements in Management Practices

#	Research Objectives (RO)	Research Questions (RQ)	Propositions (H)	Analysis Findings (Themes)	Detailed Categories (Sub-themes)
B.	RO2: To identify the fundamental elements of BMI in ICT reseller SMEs' business sustainability in Malaysia	RQ2: What are the fundamental elements of BMI that contribute to the business sustainability of ICT reseller SMEs in Malaysia?	<b>Proposition #2:</b> Effective management of finance, manufactured, intellectual, human, social and relationship, and natural resources significantly contributes to the sustainability and competitive advantage ICT reseller SMEs.	<b>1. Finance Management</b> <b>2. Manufactured Capital Management</b> <b>3. Intellectual Capital Cultivation</b> <b>4. Human Capital Development</b> <b>5. Social and Relationship Capital Management</b> <b>6. Natural Capital</b>	<b>Financial Management</b> 1. Financial Management -Self-funded Strategies 2 Diversifying Financial Sources -Bank Financing -Government SME Funding -Other Funds <b>Manufactured Capital Management</b> 1. Inventory-Free Operations 2. Comprehensive Asset Management 3. Investment in infrastructure for Business Capabilities  <b>Intellectual Capital Cultivation</b> 1. Pursuing Intellectual Certification and Accreditation 2. Developing Proprietary Products to Secure Competitive Advantage 3. Reconfiguring Knowledge-based Assets 4. Organisational Agility and Adaptability 5. Enhancing Product or Service Value Proposition



#	Research Objectives (RO)	Research Questions (RQ)	Propositions (H)	Analysis Findings (Themes)	Detailed Categories (Sub-themes)
					<b>Human Capital Development</b> 1. Offering Financial Rewards and Incentives -Competitive Salary -Yearly Pay Reviews -Performance-Based Incentive -Performance Bonuses -Share Offering 2. Enhancing Employee Well-Being -Work Flexibility -Positive Workplace Culture -Comprehensive Health Coverage 3. Career Development and Advancement -Professional Growth Opportunities -Continuous Learning and Skill Enhancement -Support for Professional Certification -Career Pathing 4. Talent Acquisition and Employer Branding -Active Talent Acquisition -Strong Employer Branding 5. Talent Management and Retention -Effective Talent Utilization -Employee Empowerment and Motivation

#	Research Objectives (RO)	Research Questions (RQ)	Propositions (H)	Analysis Findings (Themes)	Detailed Categories (Sub-themes)
					<p><b>Social and Relationship Capital Management</b></p> <ul style="list-style-type: none"> <li>1. High Importance of Value Network</li> <li>-Building and Maintaining Ecosystem Relationships</li> <li>-Effective Communication and Responsive Customer Engagement</li> <li>-Collaborative and Ethical Partnerships</li> <li>-Strategic Partnership and Trust-Building</li> <li>-Innovative Marketing and Modern Technologies</li> <li>2. Achieving Customers' Satisfaction</li> <li>-Understanding Customer Pain Points and Delivering Value</li> <li>-Collaboration and Engagement with the Ecosystem</li> <li>-Commitment to Certification and Standard Compliance</li> </ul> <p><b>Natural Capital Management</b></p> <ul style="list-style-type: none"> <li>1. Recyclable or Renewable</li> <li>2. Eco-friendly Offerings</li> <li>3. Reducing Carbon Footprint</li> <li>4. Environmental Awareness Initiatives</li> </ul>
			<p><b>Proposition #3:</b> Strategic stakeholder management enhances the capabilities of ICT reseller SMEs</p>	<p><b>Stakeholder Management</b></p> <ul style="list-style-type: none"> <li>1. Relationship Building</li> <li>2. Strategic Engagement</li> <li>3. Operational Excellence</li> </ul>	<p><b>1. Relationship Building</b></p> <ul style="list-style-type: none"> <li>-Understanding Stakeholder Needs</li> <li>-Building Trust</li> <li>-Managing Conflicts</li> <li>-Recognition and Appreciation</li> </ul> <p><b>2. Strategic Engagement</b></p> <ul style="list-style-type: none"> <li>-Effective Communication</li> <li>-Collaboration and Engagement</li> <li>-Co-creation Value</li> </ul>

#	Research Objectives (RO)	Research Questions (RQ)	Propositions (H)	Analysis Findings (Themes)	Detailed Categories (Sub-themes)
					<b>3. Operational Excellence</b> -Adaptability -Continuous Improvement -Commitment to Sustainability
			<b>Proposition #4:</b> Clear company direction, supported by leadership commitment and strategic innovation, is essential for guiding ICT resellers towards sustainable growth and evolving business models	<b>Strategic Innovation</b> 1. Innovation Resource Allocation 2. Stakeholder Innovation Synergies 3. Customer-Centric Innovation 4. Leadership and Strategic Direction 5. Adaptation to Technological Changes 6. Agility in Business Operations	<b>1. Innovation Resource Allocation</b> -Financial Investments and Human Capital -Intellectual Capital Development <b>2. Stakeholder Innovation Synergies</b> -External Strategic Partnerships and Collaborations -Internal Stakeholder Engagements and Collaborations <b>3. Customer-Centric Innovation</b> -Aligning Innovation with Customer Needs <b>4. Leadership and Strategic Direction</b> -Leadership Commitment -Strategic Planning <b>5. Adaptation to Technological changes</b> -Staying Relevant with Technological Trends <b>6. Agility in Business Operations</b> -Optimizing Processes and Enhancing Efficiency -Flexibility and Continuous Learning

#	Research Objectives (RO)	Research Questions (RQ)	Propositions (H)	Analysis Findings (Themes)	Detailed Categories (Sub-themes)
			<b>Proposition #5:</b> ICT reseller SMEs with strong dynamic capabilities (recognise, revitalise, respond and learn) will be better positioned to sustain growth in a competitive environment	<b>1. Recognise</b> <b>2. Revitalise</b> <b>3. Respond</b> <b>4. Feedback and Learning Loop</b>	<b>Recognise</b> 1. Market Dynamics and Competition 2. Technological Trends 3. Customer and Market Needs 4. Operational Inefficiencies <b>Revitalise</b> 1. Resource Management 2. Stakeholder Management <b>Respond</b> 1. Agility 2. Growth 3. Resilience 4. Feedback and Learning Loop

#	Research Objectives (RO)	Research Questions (RQ)	Propositions (H)	Analysis Findings (Themes)	Detailed Categories (Sub-themes)
			<b>Proposition #6:</b> A well-structured BMI framework with agility, growth and resilience pillars is essential for the sustainable growth.	<b>1. Agility</b> <b>2. Growth</b> <b>3. Resilience</b> <b>4. Feedback and Learning Loop</b>	<b>Agility</b> 1. Financial Management 2. Human Capital - Employee Benefits and Welfare 3. Intellectual Capital - Organisational Agility and Adaptability 4. Social and relationship Capital 5. Strategic Innovation - Innovation Resource Allocation - Stakeholder Innovation Synergies - Customer-Centric Innovation - Leadership and Strategic Direction - Adaptation to Technological Changes - Agility in Business Operations 6. Stakeholder Management - Operational Excellence

#	Research Objectives (RO)	Research Questions (RQ)	Propositions (H)	Analysis Findings (Themes)	Detailed Categories (Sub-themes)
					<b>Growth</b> 1. Intellectual Capital -Developing Proprietary Products to Secure Competitive Advantage -Enhancing Product and Service Value Proposition 2. Human Capital -Career Development and Advancement -Acquisition and Employer Branding 3. Natural Capital -Eco-friendly Offerings -Reducing Carbon Footprint 4. Strategic Innovation -Innovation Resource Allocation -Stakeholder Innovation Synergies -Customer-Centric Innovation - Leadership and Strategic Direction 5. Stakeholder Management - Strategic Engagement

#	Research Objectives (RO)	Research Questions (RQ)	Propositions (H)	Analysis Findings (Themes)	Detailed Categories (Sub-themes)
					<b>Resilience</b> 1. Manufactured Capital -Investment in Infrastructure for Business Capabilities 2. Human Capital -Talent Management and Retention 3. Social and Relationship -Achieving Customers' Satisfaction 4. Natural Capital -Environmental Awareness Initiatives 5. Strategic Innovation -Leadership and Strategic Direction -Adaptation to Technological Changes -Agility in Business Operations 6. Stakeholder Management -Operational Excellence -Strategic Engagement

#	Research Objectives (RO)	Research Questions (RQ)	Propositions (H)	Analysis Findings (Themes)	Detailed Categories (Sub-themes)
					<b>Feedback and Learning Loop</b> 1. Intellectual Capital -Reconfiguring Knowledge-based Assets 2. Human Capital -Continuous Learning and Skill Enhancement 3. Natural Capital -Environmental Awareness Initiatives 4. Strategic Innovation -Customer-Centric Innovation -Leadership and Strategic Direction -Adaptation to Technological Changes -Agility in Business Operations 5. Sustainability Initiatives -Improvement from Past Experiences
C.	RO3: To recommend a BMI framework to enhance the sustainable growth of ICT reseller SMEs in Malaysia	RQ3: What will the BMI framework be to enhance the sustainable growth of ICT reseller SMEs in Malaysia?	<b>Proposition #7:</b> Developing a BMI framework that incorporates resource management, stakeholder management, strategic innovation, and dynamic capabilities will significantly enhance the competitiveness and sustainability of ICT reseller SMEs	<b>1. Stakeholder Management</b> <b>2. Resource Management</b> <b>3. Strategic Innovation</b> <b>4. Agility</b> <b>5. Growth</b> <b>6. Resilience</b> <b>7. Dynamic Capabilities</b> <b>8. Company Direction</b> <b>9. Challenges</b>	<b>1. Stakeholder Management</b> -Internal Stakeholders -External Stakeholders <b>2. Resource Management</b> -Financial Capital -Manufactured Capital -Intellectual Capital -Human Capital -Natural Capital -Social & Relationship Capital <b>3. Strategic Innovation</b> <b>4. Agility</b> <b>5. Growth</b> <b>6. Resilience</b>



#	Research Objectives (RO)	Research Questions (RQ)	Propositions (H)	Analysis Findings (Themes)	Detailed Categories (Sub-themes)
					<b>7. Dynamic Capabilities</b> -Recognize -Revitalize -Respond -Feedback and Learning Loop <b>8. Company Direction</b> -Leadership Commitment -Strategic Planning <b>9. Challenges</b> -Market Dynamics and Competition -Technological Trends -Evolving Customer and Market Needs -Operational Inefficiencies

## **5.4 Discussions on Findings and Results**

### **5.4.1 RQ1: What are the key challenges faced by ICT reseller SMEs in Malaysia in sustaining their businesses, and how do they overcome these challenges to achieve business sustainability?**

The interviews conducted with respondents from ICT reseller SMEs in Malaysia have revealed a range of challenges that impact their business sustainability. This discussion addresses the challenges and then explores the corresponding business sustainability initiatives analysed across four key themes: market dynamics and competition, technological trends, evolving customer and market needs, and operational inefficiencies. By using the same themes across both challenges and initiatives, it can better compare and align insights across these categories, which strengthens the validity of your findings. These areas highlight the main difficulties that resellers must navigate to sustain and grow their businesses in a rapidly changing environment.

#### **a) Market Dynamics and Competition**

Respondents highlighted the tough competition in the ICT reselling industry. Many resellers face pressure from hardware vendors who bundle software with their products, making it hard for standalone service providers to compete. Principals are also shifting towards direct selling, reducing the role of traditional resellers in the distribution chain. This market saturation has led to price wars, shrinking profit margins, and increased competition for projects.

To address these challenges, many resellers are diversifying their services. By moving from simple transactions to offering value-added solutions like managed services and integrated consultancy, they create more appealing packages for customers. Strategic partnerships have also been key, allowing resellers to tap

into new markets and leverage their partners' strengths. These strategies not only help resellers stay competitive but also improve margins and build customer loyalty.

#### **b) Technological Trends**

The rapid pace of technological change, particularly with the rise of cloud computing and the hype of AI, presents a significant challenge for ICT resellers. The shift towards cloud services has reduced the demand for traditional hardware and installation services, leading to shrinking margins in these areas. The need to stay current with technological advancements also places continuous pressure on resellers to upgrade their technical skills and service offerings. The obsolescence of traditional ICT services, such as on-premise installations, further complicates the ability of resellers to maintain their market position.

ICT resellers have increasingly embraced technological innovations and emphasised professional delivery to address these technological challenges. This includes investing in new certifications, staying updated with the latest technological trends, and partnering with industry leaders to ensure they remain at the forefront of the market. Continuous improvement based on past experiences also emerged as a key initiative, with resellers drawing lessons from previous projects to refine their offerings and improve service quality. By proactively adopting new technologies and maintaining high service delivery standards, resellers are better positioned to navigate the technological shifts in the industry and capitalise on emerging opportunities.

#### **c) Evolving Customer and Market Needs**

The evolving behaviour of customers, who are now more informed and demanding, presents another significant challenge for ICT reseller SMEs. With abundant information available through digital platforms, customers are

increasingly sophisticated in purchasing decisions, often comparing prices and solutions across different vendors. This shift requires resellers to be more adaptive and responsive to customer needs. Additionally, there is a growing demand for service-oriented approaches, where customers expect more than just products—they seek comprehensive solutions that include consultation, ongoing support, and integration services.

ICT reseller SMEs have strongly emphasised strategic customer engagement in response to these evolving customer needs. Building and maintaining strong customer relationships has become central to their business strategy. Resellers are adopting a more consultative approach, focusing on understanding the broader ecosystem in which their customers operate and tailoring their solutions accordingly. This includes regular customer engagements, building relationships, gathering feedback, and making agile decisions to quickly adapt to changing customer demands. By enhancing customer engagement strategies, resellers can foster long-term relationships and ensure their offerings remain relevant and valuable in a competitive market.

#### **d) Operational Inefficiencies**

Operational inefficiencies, such as credit line limitations, difficulties in retaining technical expertise, and extended lead times for product delivery, were also significant challenges identified by the respondents. These inefficiencies can hamper the ability of ICT resellers to scale their operations, manage cash flows effectively, and meet customer expectations. The challenges of managing remote teams, particularly in the COVID-19 pandemic, further exacerbated these operational difficulties, highlighting the need for more robust management practices. As the interviews were mainly with the business owner or decision maker, it could probably be that none of them will admit that they are having

challenges with poor management. Hence, we could not rule out the possibility of this section of the internal struggle (Alsaaty and Makhoul, 2020).

ICT resellers have implemented several strategic initiatives to counter these operational inefficiencies, optimise resource utilisation, and enhance management practices. One such initiative involves optimising team members through cross-training and internal promotions, improving operational efficiency and encouraging a more versatile workforce. While most resellers focus on basic operational improvements to address inefficiencies, one respondent took a more advanced approach by adopting stringent management practices due to their expertise and background. This included detailed financial reviews and improved budgeting policies, which are only commonly practised in SMEs if the owner has expertise in that area. This reflects the diverse financial knowledge levels within Malaysia's ICT reseller industry. Although this approach has yet to be widely adopted, it underscores the potential impact of specialised knowledge on enhancing operational stability. Such practices could be a helpful reference point for other resellers aiming to strengthen their internal management processes.

#### **5.4.2 RQ2: What are the fundamental elements of business model innovation (BMI) that enable ICT reseller SMEs in Malaysia to achieve business sustainability?**

This discussion will build on the data analysis presented in Chapter 4, where several key elements of BMI were identified and linked to business sustainability. These elements—resource management, strategic innovation, stakeholder management, and dynamic capabilities—are crucial in shaping the ability of ICT reseller SMEs to thrive in a competitive, dynamic environment. The elements of resource management, strategic innovation, stakeholder management, and dynamic

capabilities were found to be essential for ICT reseller SMEs to succeed in a competitive and dynamic environment. While interviews served as the primary data source, involving respondents with diverse expertise and perspectives, the use of a triangulation approach to identify recurring themes, patterns, and insights has enhanced the robustness of the findings.

The aim here is to offer a deeper interpretation of these findings, moving beyond the descriptive data and drawing connections between the strategies employed by the respondents and the broader theoretical frameworks discussed in the literature. By examining how these BMI elements contribute to sustainability, this section will also align the empirical results with the strategic imperatives for long-term business growth, competitiveness, and resilience within the ICT reseller sector. Through this analysis, we will uncover how ICT reseller SMEs utilise these elements to navigate challenges and ensure sustainable business practices.

#### **a) Resource Management for Business Sustainability**

The findings from the interviews with the ICT reseller SMEs reveal the critical role of resource management in achieving business sustainability. The respondents highlighted various strategies under financial, manufactured, intellectual, human, social and relationship, and natural capital management. Each of these capitals plays a pivotal role in guiding companies toward growth and resilience, underscoring the importance of a well-rounded approach to resource management.

In **financial capital management**, all the respondents rely heavily on self-funded strategies, supplemented by ongoing transactions or project-based cash flows. This reliance on internal funding sources provides flexibility and independence, allowing them to avoid debt but constrains their ability to scale rapidly. However, accessing external financial support, such as bank financing,

remains challenging. SMEs are often perceived as riskier than larger firms due to their limited financial history, making it difficult to secure loans or funding at favourable terms (Blick et al., 2024). This financial constraint directly impacts their ability to invest in innovation and growth, which can lead to slower advancement in a competitive market. Given these limitations, other resources and capabilities become important for ICT reseller SMEs. Intellectual capital, human capital, social and relationship capital (SRC), stakeholder management and dynamic capabilities are crucial in balancing the weaknesses associated with limited financial capital.

**Intellectual Capital Cultivation**, reflected in ongoing certification, knowledge management, and agility, plays a central role, allowing ICT resellers to stay competitive in a rapidly changing market. Most respondents emphasised the importance of enhancing their product and service value propositions through employee upskilling and continuous innovation. However, fewer companies are engaged in proprietary product development due to resource limitations. In many cases, SMEs tend to “follow the wave” of technological change led by more prominent players rather than leading innovation themselves. This is especially true in Malaysia, where the business ecosystem has yet to incentivise smaller players to invest entirely in high-risk R&D ventures. (de Mattos et al., 2024). The unique strength and intelligence of the leadership or management determine the company's performance and sustainability. (Bachtiar et al., 2023).

Similarly, **Human Capital Development** emerged as another vital resource, with ICT reseller SMEs strategically implementing *Financial Rewards and Incentives*, *Enhancing Employee Well-being* and, *Career Development and Advancement* to retain and motivate their workforce. This emphasis on human capital is consistent with the RBV, which argues that, when well-developed and strategically aligned, human resources can be a key source of sustainable

competitive advantage (Barney, 1991). While larger enterprises may offer more competitive packages, SMEs can still foster employee loyalty and retention through well-structured incentives, as smaller firms may offer greater flexibility and personalised approaches to career development (Abraham et al., 2023). Besides, there is no one-size-fits-all approach when it comes to financial rewards and incentives. Employees value different aspects of rewards and recognition, which change over time. A better strategy is to make rewards flexible and adaptable to meet individual needs, helping companies manage their HR budgets more effectively. By balancing consistency with local flexibility, businesses can design rewards that motivate employees and reduce unnecessary spending on generalised programs (Madhani, 2020).

One key distinction between SMEs and larger enterprises is how they structure *Career Development and Advancement*. Larger enterprises typically offer formalised training programs, leadership development initiatives, and structured career paths due to their ample resources. These organisations often have defined hierarchies that provide employees with clear progression routes, enabling them to climb the corporate ladder over time. SMEs, by contrast, may need more financial and operational resources to offer such extensive programs. However, this limitation can also become an advantage. Employees in the ICT reseller SMEs gain broader responsibilities and exposure to different aspects of the business, allowing them to develop a wide range of skills more quickly. This flexibility and informal learning environment can foster a diverse skill set, offering an entrepreneurial approach to career development. (Garcia-Martinez et al., 2023). This approach also enables the ICT reseller SMEs to foster a more agile workforce by developing leadership internally as the business grows, allowing employees to take on



leadership roles sooner than they might in larger companies. (Garcia-Martinez et al., 2023).

Consequently, ICT reseller SMEs often attract individuals who may view them as a stepping stone or second choice. Some ICT reseller SMEs emphasise building their *Strong Employer Branding*. Smaller companies can leverage their agility and strong company culture, emphasising employees' well-being, flexibility, and work-life balance to create a unique value proposition for prospective employees (Abraham et al., 2023; Junça Silva and Dias, 2022). While *Talent Acquisition* is essential for business sustainability, *Talent Management and Retention* are equally critical for long-term success. SMEs can use their smaller size to their advantage by offering more personalised and meaningful roles, often lacking in larger enterprises where employees feel like another cog in the machine (Farida and Setiawan, 2022). In SMEs, employees will likely feel a stronger sense of ownership over their work, with opportunities for broader responsibilities and faster career advancement. This personalised attention and involvement in decision-making can foster a deeper connection to the company's success, which is highly attractive to talent looking for meaningful work experiences (Kindström et al., 2024).

**Social and Relationship Capital (SRC)** is the most defining factor for ICT reseller SMEs. The choice to segment SRC into *High Importance of Building Value Network* and *Achieving Customers' Satisfaction* reflects the dual critical intangible resources SMEs must adopt to sustain business operations: maintaining strong external relationships and ensuring internal alignment with customer needs. The *High Importance of Building Value Network* represents the external relationships and partnerships vital for SMEs to thrive in a competitive ecosystem. This theme encompasses a broader strategy of leveraging partnerships, communication, and

ethical behaviour to build a resilient business network supported by ecosystem and stakeholder theories. (Moore, 1993; Donaldson and Preston, 1995). These relationships form the backbone of a resilient business network, enabling firms to access resources, knowledge, and market opportunities (Yoon et al., 2022; Adner and Kapoor, 2016).

On the other hand, Achieving Customers' Satisfaction zeroes in on the essential customer-centric strategies for business longevity. This category was chosen because customer satisfaction remains the cornerstone of sustainable business practices, and in the context of ICT reseller SMEs, it is crucial to continuously align product offerings with customer expectations while maintaining trust through certifications and standards (Khamitov et al., 2024). All the respondents highlighted that understanding the customer's pain points and delivering value is a resource that enables businesses to leverage the ecosystem to provide tailored solutions, build customer trust and loyalty, and sustain revenue streams (Blut et al., 2023). This is an invaluable resource, as it will directly impact the company's ability to remain competitive and relevant. This idea aligns with Gupta et al. (2024) and Grönroos's (1995) relationship marketing theory, which emphasises that customer satisfaction is not a transactional achievement but a relational process that involves the entire value system.

**Manufactured Capital Management and Natural Capital Management** appeared less impactful to the ICT reseller SMEs. In the area of manufactured capital, most respondents emphasised their reliance on *Inventory-free Operations*. Instead, distributors play a crucial role in the ecosystem by managing the warehousing and delivery logistics, allowing resellers to focus on core functions like customer service and solution delivery. However, another critical resource worth highlighting is *Investment in Infrastructure for Business Capabilities*. This

decision involves experience in balancing foresight, financial resources, and crafting a value proposition that differentiates the business. The challenge lies in determining whether such investments will enable greater efficiency and reliability, leading to sustained revenue and adaptability to changing market demands, or whether they will follow fleeting trends, causing investments to be wasted. If an entire investment in infrastructure is not feasible, ICT resellers often rely on key stakeholders, particularly distributors and principals. In this scenario, stakeholder management becomes a crucial component of business sustainability. Effective collaboration with distributors ensures smooth operations and timely delivery of goods to end-users. This strategic alignment allows resellers and distributors to leverage each other's strengths, enhancing market responsiveness and operational efficiency. (Freeman, 2023).

While the respondents acknowledge seeing **natural capital management** as “waves” of growing importance globally in the industry, such as the global shift toward eco-friendly practices and sustainability goals, these areas have not yet taken centre stage in their business models for many Malaysian ICT resellers. Instead, these ICT reseller SMEs, like most of the ASEAN SMEs, have not yet perceived them as critical to their immediate business operations (Yoshino et al., 2023). The focus remains on activities directly tied to revenue, with a continued reliance on principals for product offerings and a cautious approach to resource-intensive initiatives such as natural capital management.

#### **b) Stakeholder Management**

In conclusion, the research findings point to financial, human, intellectual, social and relationship capital as the most critical resources after identifying the six key capitals crucial for business sustainability. These resources are inherently linked to people, which underlines the three key areas of stakeholder management-

*relationship building, strategic engagement and operational excellence* in ICT reseller SMEs. Stakeholders—employees, customers, suppliers, distributors, or principals—are pivotal to the business's survival and growth, emphasising the need for effective internal and external stakeholder strategies.

Managing internal stakeholders, including employees, management, shareholders, distributors, suppliers, and customers, plays a critical role in the daily operations and contributes significantly to its success. Managing stakeholders fosters engagement, motivation, and alignment with the company's strategic goals. As discussed earlier, human capital development plays a central role in this. Employee empowerment and motivation, for example, are key drivers of internal stakeholder relationships, as these practices foster a sense of ownership and loyalty, encouraging employees to invest in the company's long-term goals (Thibault Landry and Whillans, 2019). *Building strong relationships* within the organisation requires *understanding needs* (Massaro et al., 2018; Donaldson and Preston, 1995), *building trust* (Pedrini and Ferri, 2019), *managing conflicts* (Zahoor et al., 2022), and *recognising and appreciating* (Freudenreich et al., 2020) employees' contributions. These elements create a supportive environment where employees feel valued, which enhances their commitment to the company's success. For external stakeholders, building trust and understanding their needs is equally crucial for sustaining long-term partnerships. All the respondents emphasised the importance of maintaining strong, trust-based relationships with external stakeholders, particularly distributors and principals, to ensure reliable access to products and services. Strategic partnership and trust-building with external partners facilitate mutual success as both parties align their efforts toward shared business goals (Freeman, 2023).

**Strategic engagement** is also vital for both internal and external stakeholders. *Effective communication* from leadership ensures that employees understand the company's vision and direction. (Kujala et al., 2019), while opportunities for *collaboration and engagement* in decision-making processes allow employees to *co-create value*, contributing to innovative ideas and improving performance (Stonig et al., 2022; Minatogawa et al., 2022). By involving employees in the strategic direction of the business, SMEs can foster a culture of collaboration and shared responsibility. (Madhani, 2020). Externally, engaging stakeholders such as suppliers and customers too requires collaboration and clear communication. By developing co-creation value with external partners, SMEs can align resources and innovations with customer needs, creating long-term competitiveness and differentiation in a crowded marketplace.

In pursuit of **operational excellence**, whether with internal or external stakeholders, it is essential to maintain a culture of *continuous improvement* and *adaptability* (Remme and de Waal, 2020; de Villiers and Sharma, 2020). For internal stakeholders, this involves providing employees with opportunities for learning, growth, and development, ensuring they can adapt to changing market conditions and operational needs. For external stakeholders, particularly distributors, technology partners, and suppliers, operational excellence involves supply chain efficiency and leveraging each other for support. Maintaining solid relationships with external partners enhances response times and customer experiences. This focus on adaptability and continuous improvement ensures that the company remains agile and aligned with the evolving demands of the business and is committed to *long-term sustainability* and success (Bridoux and Stoelhorst, 2022).

Integrating internal and external stakeholder management is essential for ICT reseller SMEs to maintain coherence and alignment across their business. Internal efforts to build a strong, motivated workforce translate into better relationships and interactions with external stakeholders, such as principals, customers and distributors. This alignment ensures that the business operates smoothly, adapts to changing market conditions, and continues to deliver value to all parties involved. By managing internal and external stakeholders effectively, ICT reseller SMEs can foster long-term partnerships, ensure employee loyalty, and sustain their competitive advantage in a dynamic industry. The findings in this study support the broader literature on stakeholder theory, which emphasises that businesses must build strong, ethical relationships with all stakeholders to ensure long-term success. (Freeman et al., 2021).

### **c) Strategic Innovation**

The analysis of strategic innovation responses from the ICT reseller SMEs in Malaysia reveals that innovation is central to their business operations identified across six key areas- innovation resource allocation, stakeholder innovation synergies, customer-centric innovation, leadership and strategic direction, adaptation to technological changes, and agility in business operations. This restructuring ensures that strategic innovation practices directly address the four main challenges faced by these SMEs—market dynamics and competition, technological trends, evolving customer and market needs, and operational inefficiencies—while integrating resource management and stakeholder management. By aligning innovation with these core challenges, ICT resellers can enhance their competitive edge, remain agile in the face of market changes, and maintain long-term business sustainability.

**Innovation resource allocation** is crucial for SMEs' strategic innovation efforts, particularly in *Financial Investments*, *Human Capital Development* and *Intellectual Capital Development* (Lukovszki et al., 2020). ICT reseller SMEs recognise the need for substantial investments in R&D and building intellectual capital through employee training and development. This strategic allocation of resources allows SMEs to differentiate their offerings and enhance their competitiveness in a crowded market, helping them navigate the challenges of market dynamics and competition. However, many ICT resellers face credit line limitations and constrained access to financial resources due to their reliance on self-funding or limited external financing options. As a result, allocating financial resources to critical innovation efforts becomes even more significant. This approach is vital in overcoming operational efficiency challenges, such as extended lead times and managing technical and remote teams. By investing in internal process optimization and enhancing resource utilisation, SMEs can strengthen their operational resilience and maintain the flexibility needed to adapt to market demands. This strategic use of financial and intellectual capital enables SMEs to remain agile and competitive, ultimately improving their overall market standing (Blick et al., 2024).

Many ICT reseller SMEs leverage **stakeholder innovation synergies** by *collaborating with external stakeholders*, such as customers, partnering with principals and distributors to extend their capabilities without bearing the full burden of R&D or infrastructure investments. This strategic partnership is crucial in addressing market dynamics and competition, where SMEs face direct competition from hardware vendors and principals. By collaborating rather than competing, SMEs can secure a stronger foothold in the market and ensure a continuous flow of products and services from their partners (Garcia-Martinez et

al., 2023). Stakeholder innovation synergies also help mitigate risks associated with rapid technological trends. By collaborating with principals driving technological innovation, ICT resellers can focus on distributing cutting-edge products without the need for heavy R&D investment. This strategy allows them to stay relevant in the face of rapid technological evolutions, such as the cloud innovation wave and the obsolescence of traditional ICT services (de Mattos et al., 2024).

Additionally, *collaboration with internal stakeholders*, such as employees, creates a culture of co-creation and innovation. Employee ideas and expertise contribute to the company's strategic goals, making sure that internal stakeholder engagement enhances organisational agility. This internal collaboration enables SMEs to respond more effectively to evolving customer and market needs, helping them to remain competitive and adaptive in a changing business environment.

Focusing on **customer-centric innovation** ensures that SMEs align their products and services with evolving customer and market needs. All the respondents have recognised the need to shift from a product-based approach to a more service-oriented model. By emphasising the *alignment of innovation with customer needs*, SMEs can meet the increasing demand for tailored, value-added services that cater to specific business needs. This addresses the challenge of evolving consumer behaviours, where customers expect more than just hardware—they seek comprehensive solutions that solve their business problems. Customer-centric innovation also helps address the intense competition from larger players by differentiating SMEs through superior service offerings and close customer relationships. As customers shift toward service-based models, ICT resellers must innovate around customer engagement, ensuring that their offerings are technologically advanced and provide practical value from the customer's perspective (Blut et al., 2023).



**Leadership and strategic direction** are essential components in driving innovation and maintaining alignment with the company's strategic goals. *Leadership commitment* is crucial for ICT resellers, particularly as they navigate market dynamics and competition from both principals and other resellers. Leaders in ICT resellers need to set a clear strategic direction, ensuring that innovation efforts are targeted at areas of the business where differentiation and competitive advantages can be achieved (Yuwono et al., 2024). Effective *strategic planning* is equally crucial in addressing technological trends, as leaders must identify which innovations to invest in and how to integrate them into the business. Leadership that prioritizes staying ahead of technological evolutions—such as the shift to cloud services—ensures that the organisation remains competitive and responsive to market changes (Omol, 2024).

Another area requiring strategic innovation is the **adaptation to technological changes**, which remains one of the greatest challenges ICT reseller SMEs face in staying relevant amid rapidly evolving technological trends. Adaptability is critical for sustaining long-term competitiveness, as resellers must constantly update their product and service offerings. Cloud computing, rapid technological advancements, and the obsolescence of traditional services are pressing factors that compel ICT resellers to innovate and remain relevant. By strategically investing in innovation—particularly in developing intellectual capital—SMEs can position themselves as value-added resellers offering more than just products. For instance, providing consulting services for cloud adoption or cybersecurity solutions enables them to capture revenue and effectively address customer pain points and evolving demands. Leaders who prioritize continuous learning and technological adaptation ensure that their teams stay agile and

responsive to these changes, allowing them to meet customer expectations and maintain a competitive edge (Zahoor et al., 2022).

**Agility in business operations** is paramount for ICT resellers, especially given the operational inefficiency challenges that they face, such as credit line limitations, acquisition of technical expertise, and managing remote teams. The emphasis on agility in business operations in the data findings reveals that all the respondents are focusing on *optimizing processes and enhancing efficiency*. By optimizing processes and fostering a culture of *flexibility and continuous learning*, SMEs can quickly respond to market demands and improve their service offerings. Flexibility in business operations also helps ICT resellers manage extended lead times and technical expertise shortages by allowing them to pivot and adjust their internal processes to meet customer needs more effectively. Agility enables ICT resellers to remain competitive in a fast-evolving market, where success often depends on delivering products and services more efficiently than competitors (Roblek et al., 2022).

Strategic innovation in ICT reseller SMEs is closely tied to resource and stakeholder management. Innovation is not isolated from the broader business strategy; it is embedded in how resources are allocated, and stakeholders are engaged. Effective financial, human, and intellectual capital management and strong stakeholder relationships ensure that SMEs can innovate and remain competitive in a rapidly evolving market. These findings are consistent with existing literature, which underscores the importance of integrating innovation, resource management, and stakeholder engagement for business sustainability.

#### **d) Dynamic Capabilities**

Dynamic capabilities, consisting of Recognise, Revitalise, Respond, and Feedback and Learning Loop, are essential in ensuring that ICT reseller SMEs can

survive and thrive in a competitive and ever-changing market. These capabilities allow businesses to detect opportunities and threats, adapt their resources, and respond effectively to market demands while continually learning from experiences to improve future performance. According to Teece (2009), dynamic capabilities enable firms to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments.

In the analysis of dynamic capabilities within ICT reseller SMEs in Malaysia, the "**Recognise**" phase stands out as a critical element in identifying both opportunities and threats in a rapidly changing environment. Based on the data findings, the recognition process was segmented into four main areas: Market Dynamics and Competition, Technological Trends, Customer and Market Needs, and Operational Inefficiencies. Each of these themes represents the challenges that SMEs must actively detect and interpret to maintain their competitive edge and long-term sustainability. By recognizing these challenges, SMEs can better anticipate market shifts, allowing for more proactive strategic planning (Teece et al., 2016).

The "**Revitalise**" phase focuses on improving and optimising existing processes, resources, or strategies to capitalize on new opportunities or address threats. This phase directly connects to resource and stakeholder management, as SMEs must continuously assess their capabilities and relationships to remain competitive (Freeman and Phillips, 2018; Barney, 2018). In *Revitalise 1: Resource Management*, SMEs must adapt their financial, manufactured, intellectual, human and social and relationship, and natural capital to meet the market's demands. This includes ensuring the efficient use of financial resources, upskilling employees, maintaining flexibility in intellectual capital, and fostering strong social and relationship capital networks. These efforts directly enhance the company's ability

to respond to current challenges such as market dynamics and competition, technological trends, evolving customer and market needs, and operational inefficiencies. *Revitalise 2: Stakeholder Management* is equally important, as it focuses on building, maintaining, and leveraging relationships with both internal and external stakeholders. Effective stakeholder management, through relationship building, strategic engagement, and operational excellence, allows ICT reseller SMEs to co-create value, optimize their operations, and enhance their competitiveness in the market (Yuwono et al., 2024; Freeman et al., 2021; Remme and de Waal, 2020). Through collaboration with stakeholders, SMEs can gain valuable insights, share resources, and create synergies that boost innovation and growth (Wheelwright, 2019; Bradley et al., 2022; Franco and Rodrigues, 2021).

Once opportunities and challenges have been recognised and resources revitalised, the next step is to “**Respond**” effectively. This involves taking strategic actions to ensure that the business remains agile, fosters growth, and remains resilient. Based on the respondents’ responses to *Respond 1: Agility*, *Respond 2: Growth* and *Respond 3: Resilience*, in Chapter 4, it is evident that most of their strategies focus on achieving agility, pursuing long-term growth, and building robust resilience. *Agility* is crucial for making quick decisions, adapting to changing conditions, and maintaining operational flexibility. This is particularly relevant in financial management, human capital development, intellectual capital cultivation, SRC, strategic innovation, and stakeholder management. *Agility* in business decision-making and operations allows ICT reseller SMEs to stay competitive in dynamic markets, enabling them to respond to shifts in demand, customer needs, and technological advancements (Teece et al., 2016).

*Growth* focuses on expanding product and service offerings while exploring new markets (Schubert et al., 2020). This is primarily driven by intellectual capital,

human capital development, natural capital, strategic innovation, and stakeholder management. ICT resellers SMEs frequently mention these key factors and emphasise growth strategies such as diversifying services and products, establishing certified niche specialisations, and forming strategic partnerships. Research indicates that developing a unique identity or niche specialisation allows ICT reseller SMEs to more effectively seize growth opportunities (Garcia-Martinez et al., 2023; Heider et al., 2021). By focusing on these areas, ICT reseller SMEs can differentiate themselves from competitors and capture new business opportunities.

*Resilience* refers to the company's ability to withstand shocks and disruptions while maintaining operational stability (Zavala-Alcívar et al., 2020). ICT reseller SMEs build resilience by managing stakeholders effectively, investing in infrastructure, retaining talent, engaging in continuous learning, enhancing leadership, and focusing on environmental sustainability initiatives. Resilience is critical in ensuring long-term sustainability, as it allows businesses to recover quickly from setbacks and continue operating in challenging environments (Bachtiar et al., 2023; Miceli et al., 2021).

The **Feedback and Learning Loop** is crucial in dynamic capabilities, ensuring that businesses continually learn from their experiences and refine their operations (Teece, 2009). This process involves reconfiguring knowledge-based assets, enhancing customer satisfaction, and promoting continuous learning, which is especially valuable in driving strategic innovation and incorporating environmental awareness initiatives. The feedback loop allows SMEs to adjust their strategies, improve resource allocation, and stay ahead of market trends, allowing them to remain competitive and innovative over the long term (Franco and Rodrigues, 2021; Prange and Verdier, 2011).

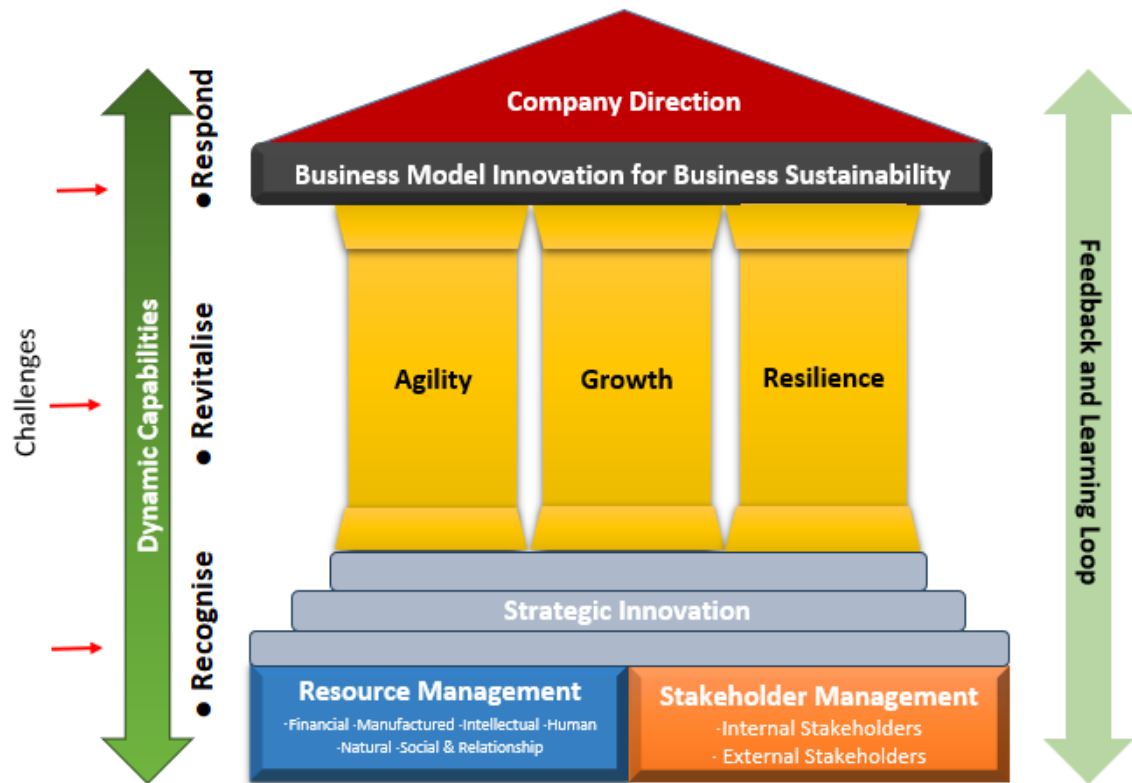
In conclusion, dynamic capabilities—through the process of recognising, revitalising, responding, and utilising feedback and learning loops—are vital for ICT reseller SMEs in Malaysia to navigate the complex challenges of market dynamics, technological trends, evolving customer needs, and operational inefficiencies. By embedding strategic innovation practices within resource management and stakeholder management, these businesses can foster the agility, growth, and resilience required to maintain long-term competitiveness and success.

#### **5.4.3 RQ3: How can a business model innovation (BMI) framework be designed to enhance the sustainable growth of ICT reseller SMEs in Malaysia?**

ICT reseller SMEs in Malaysia face significant challenges, such as market dynamics, evolving customer expectations, technological disruptions, and operational inefficiencies. To thrive in this context, these SMEs must adopt innovative business models that address these challenges and position them for long-term growth and sustainability. The BMI framework for business sustainability offers a strategic framework for redefining how companies create, deliver, and capture value in their operations. BMI is essential for ICT resellers as it integrates key resources, stakeholder relationships, and dynamic capabilities to ensure agility, growth, and resilience in the face of both market opportunities and disruptions.

In addressing RQ3, this section introduces a comprehensive BMI framework specifically designed for ICT reseller SMEs in Malaysia. It aligns the core components of resource management, stakeholder management, and strategic innovation with the dynamic capabilities needed to navigate the industry's unique challenges. Based on the findings from the study, this framework incorporates the

recognised areas of agility, growth and resilience as central pillars that support sustainable business practices. Additionally, it emphasises the importance of continuous feedback and learning loops that allow businesses to adapt and evolve in a constantly shifting landscape.



**Figure 5.1 Business Model Innovation (BMI) for Business Sustainability of ICT Reseller SMEs in Malaysia**

At the top of the framework, **Company Direction** serves as the guiding force of the entire model. The red roof symbolizes leadership’s overarching strategic goals and vision, which guide business operations and ensure alignment with long-term sustainability goals. Leadership commitment ensures that all other elements, from resource allocation to stakeholder engagement, align with the company’s objectives.

The three yellow pillars of **Agility**, **Growth**, and **Resilience** form the foundation of sustainable business success in dynamic markets. They represent the

strategic outcomes of effective BMI practices and reflect the company's ability to adapt, expand, and endure over time. Each pillar is crucial as **Agility** represents the company's capacity to rapidly respond to market changes, customer demands, and technological innovations; **Growth** emphasises expanding product and service offerings, entering new markets, and finding niche specialisations; **Resilience** ensures the company can withstand market shocks, recover from setbacks, and maintain operational stability.

The grey staircase represents **Strategic Innovation**, a key pathway that enables companies to rise and meet their sustainability goals. Strategic innovation encompasses efforts like resource management, stakeholder management, and the use of dynamic capabilities to consistently improve, innovate and stay competitive. Innovation in this framework is not a standalone activity but one that is intertwined with every other business process, ensuring continuous adaptation to evolving market conditions.

At the base of the model, the two horizontal blocks represent **Resource Management** and **Stakeholder Management**, the bedrock upon which the company's sustainability is built. Resource management encompasses six key capitals: financial, manufactured, intellectual, human, natural, and social and relationship capital. These are the foundational assets that drive business operations and competitiveness. Stakeholder management includes both internal (employees, management, shareholders) and external stakeholders (customers, suppliers, distributors, principals). Effectively managing these relationships is key to aligning business objectives with market demands and ensuring long-term value creation. Both resource and stakeholder management are inseparable and must be optimised together to enable successful BMI.



The green arrow on the left represents **Dynamic Capabilities**, broken into three main actions: Recognise, Revitalise, and Respond. This process begins with **Recognise**, where businesses focus on detecting market signals, such as opportunities or threats, which may arise from shifts in market dynamics or technological trends. By recognising these signals early, companies can remain proactive and alert to external changes. The next stage, which is **Revitalise**, involves optimizing internal resources, processes, and stakeholder engagements to adapt to these challenges. This phase emphasises integrating stakeholder and resource management to co-create value and ensure the organisation is prepared to act effectively. Finally, the **Respond** phase entails taking strategic actions aimed at enhancing the company's agility, growth, and resilience, allowing the business to remain responsive and flexible in the face of evolving conditions and market demands. This process ensures that ICT reseller SMEs can successfully navigate the dynamic challenges they encounter.

On the right-hand side of the framework, the **Feedback and Learning Loop** signifies the continuous cycle of learning and improvement. ICT reseller SMEs must reflect on their past experiences and adjust their strategies accordingly. This iterative process ensures businesses remain agile, innovative, and capable of maintaining competitive advantage in a fast-evolving market. ICT reseller SMEs can keep pace with industry changes and customer needs by constantly configuring resources and refining their operational strategies.

When viewed through the five themes identified under the significance of innovation in business—Innovation Resource Allocation, Stakeholder Innovation Synergies, Customer-Centric Innovation, Leadership and Strategic Direction, Adaptation to Technological Changes, and Agility in Business Operations—the framework's elements become even more relevant. For instance, innovation in

resource and stakeholder engagement necessitates effective management, while leadership and strategic direction are encapsulated within the framework's company direction component. Adaptation to technological changes aligns with strategic innovation as the staircase, representing the need for continual advancement. Agility in business operations is reflected in the three pillars of agility, growth, and resilience, which together enable firms to respond to evolving demands. Lastly, a customer-centric focus is embedded in the feedback and learning loop, ensuring that ICT reseller SMEs remain aligned with customer needs and market shifts. This alignment of components and themes reinforces the framework's role in fostering sustainable, competitive advantage.

In conclusion, this BMI framework equips ICT reseller SMEs with a robust strategy for enhancing sustainable growth by focusing on a balanced integration of resource management, stakeholder management, dynamic capabilities, and continuous innovation. This ensures agility, growth, and resilience—the key pillars that sustain long-term competitiveness in the rapidly evolving ICT industry.

## **5.5 Aligning Findings with Theoretical Framework**

The previous section, 5.4, highlights the challenges faced by ICT reseller SMEs, which are market dynamics and competition, technological trends, evolving customer and market needs, and operational inefficiencies and shows how these resellers manoeuvre through resource management, stakeholder management, strategic innovation, and dynamic capabilities to remain sustainable. These insights resonate strongly with the theoretical framework introduced in Section 2.8, which draws on the RBV, Stakeholder Theory, and Dynamic Capabilities, supported by pillars of agility, growth, and resilience. By comparing the proposed BMI framework with these underlying theories, it becomes clear that the specific

elements of resource management, stakeholder engagement, and continuous adaptation align with previously established research and offer viable strategies for addressing the identified challenges.

In relation to RBV, the emphasis on financial, human, and intellectual capital among ICT reseller SMEs underscores the idea that firms build a sustained competitive advantage by effectively leveraging their unique resources (Barney, 1991). The interviews showed that many companies rely heavily on internal funding and employee expertise, reflecting the viewpoint that “valuable, rare, inimitable, and non-substitutable” resources can drive a company’s long-term viability. This focus on optimising and renewing scarce resources directly tackles concerns around limited financial support and talent retention, two areas that often hinder SME growth. In this regard, the proposed BMI framework’s call for clear resource management functions as a blueprint for SMEs to strengthen their financial, intellectual, and human capital, helping them adapt when faced with intense market competition or new technology demands.

Stakeholder Theory becomes particularly relevant when considering how ICT resellers frequently engage in strategic partnerships with vendors, distributors, or other network participants to offset resource constraints. The research findings demonstrate that maintaining robust ties with principals, employees, and end customers reduces operational inefficiencies and builds mutual trust for co-creating solutions that respond to complex customer demands (Freeman et al., 2021). This aligns with the stakeholder management imperative described earlier in the literature review, where stakeholders such as suppliers, customers, and personnel are pivotal in shaping and delivering a firm’s value proposition. By systematically integrating stakeholder needs into their BMI efforts, reseller SMEs can diversify their offerings, streamline supply chain processes, and introduce service-oriented models that meet customers’ heightened consultation and post-sale support

expectations. Consequently, the focus on operational excellence and strategic engagement with stakeholders enables ICT resellers to position themselves competitively while mitigating risks tied to market saturation and direct competition from hardware principals.

Dynamic Capabilities theory illuminates how reseller SMEs must constantly recognise opportunities, revitalise resources, and respond to new market realities (Teece, 2018). The challenges documented in the data, from the rise of cloud computing to obsolescence in hardware services, illustrate the need for rapid sensing and flexible reconfigurations of business models. The BMI framework's push toward iterative learning loops and leadership-driven innovation parallels the dynamic capabilities notion that a firm must reconfigure its resources and competencies to respond effectively to shifting consumer demands and technological shifts (Zahoor et al., 2022). For instance, the interviews revealed how resellers quickly pivoted toward value-added services or invested in staff training for emerging tech certifications, thus exemplifying the continuous "revitalise" and "respond" phases required to sustain competitive momentum. By embedding agility, growth, and resilience, explained in section 2.5.2, into these capabilities, the BMI framework shows how SMEs can proactively address challenges linked to market fluctuations, ensuring they do not merely survive but also exploit new opportunities for expansion.

Through this alignment of empirical data, underlying theories, and the BMI framework's tangible components, it becomes evident that resource management, stakeholder management, and strategic innovation are not merely abstract concepts but concrete mechanisms for problem-solving. For instance, implementing integrated resource allocation strategies and co-innovation with partners directly addresses financial constraints and operational inefficiencies. At the same time, adopting leadership-driven strategic innovation meets evolving

customer needs more precisely, helping resellers avoid margin erosion in crowded markets. Meanwhile, the framework's emphasis on dynamic capabilities illustrates how ICT resellers can build adaptive cultures where continuous learning, rapid feedback loops, and iterative product or service revisions become part of daily operations. By mapping these solutions onto specific challenges, the framework clarifies which elements are most beneficial in areas such as credit line limitations, skill shortages, or the need for cross-training to enhance efficiency.

Overall, the proposed BMI framework stands on a strong theoretical foundation, drawing from RBV to show the resource uniqueness, from Stakeholder Theory to engage collaborators internally and externally, and from Dynamic Capabilities to drive adaptation in a fast-evolving ICT landscape. These components directly respond to the challenges faced by ICT resellers, which supports the framework's real-world value. Each theory covers a key part of business sustainability, yet they create a complete model for BMI when applied together. This alignment shows that while each theoretical strand captures a critical dimension of business sustainability, their collective application via the BMI framework offers a comprehensive model for strategic renewal. By showcasing how resources, stakeholders, and adaptability come together to address market competition, technological shifts, and operational constraints, the framework serves as both an analytical lens for understanding SME challenges and a practical guide for fostering long-term resilience and growth.

## **5.6 Practical Application of the Proposed BMI Framework**

To demonstrate the practicality and relevance of the proposed BMI framework, considering an ICT reseller SME deciding to move beyond hardware sales and step into data analytics services. Under the **Company Direction**

component, leadership sets a strategic goal to become a data-driven solution provider. This shift aligns with the RBV, which stresses that a firm's unique resource combination can secure a sustained competitive edge (Barney, 1991).

Guided by this vision, the ICT reseller uses **Dynamic Capabilities** in the “*Recognise*” phase to spot rising customer interest in data analytics. The firm then moves to the “*Revitalise*” phase by understanding its own resources and reallocating funds toward hiring or retraining staff as data scientists and buying essential software tools. At this point, **Resource Management** becomes especially vital. With limited finances, the SME smartly invests in targeted training programs for current employees rather than making large-scale outside purchases. This approach again aligns with the RBV principle of leveraging internal, valuable resources to achieve competitive advantage (Barney, 1991).

Once the SME has the right people and tools, **Stakeholder Management** takes centre stage. The firm engages new hires or through its internal stakeholders through training and career growth opportunities. It also keeps strong ties with distributors and principal vendors, ensuring a smooth supply of advanced analytics technologies. Satisfied employees create higher-quality outputs, pleasing customers and boosting profits. This mirrors Stakeholder Theory, emphasising how productive relationships with internal and external parties help co-create lasting value (Freeman et al., 2021).

Next, the ICT reseller steps into the “*Respond*” phase of **Dynamic Capabilities**, staying agile enough to adapt, for instance, by integrating client feedback to enhance its data analytics services. This agility helps the firm seize emerging market opportunities, such as customizing AI solutions for a broader range of clients (Teece, 2018). Successful projects foster the **Growth** pillar of the

framework, enabling the ICT resellers to extend these data-driven solutions to other industry segments and widen their revenue streams.

Finally, continuous improvement through the **Feedback and Learning Loop** ensures that the ICT resellers keep refining their offerings. Each completed project becomes a learning opportunity to enhance data analytics capabilities further, fueling the ongoing adaptation and stronger market positioning. Satisfied customers and motivated employees indicate the success of this cyclical process. Over time, this synergy of effective resource allocation, engaged stakeholders, and dynamic adaptation strengthens the SME's profitability and resilience.

By tracing how an ICT reseller transitions from hardware sales to the analytics solution provider, this example clarifies how the proposed BMI framework directly ties theoretical concepts with RBV, stakeholder theory, and dynamic capabilities into practical results. The framework thus offers real-world relevance and a firm foundation for ICT reseller SMEs looking to stay competitive in fast-evolving markets.

## **5.7 Contributions of the Study**

### **5.7.1 Theoretical Contribution**

The theoretical foundation of this research is rooted in three interrelated frameworks: the RBV, Stakeholder Theory, and Dynamic Capabilities Theory, which collectively contribute to a deeper understanding of BMI within the context of ICT reseller SMEs in Malaysia.

The RBV (Barney, 1991) is fundamental in understanding how a firm's internal capabilities, including tangible and intangible resources, influence its ability to sustain competitive advantage. This study extends RBV by applying it to the ICT reseller industry, where firms rely heavily on resources such as financial capital, intellectual property, human expertise, and social relationships. By emphasising the importance of effective resource management (financial, manufactured, intellectual, human, natural, social, and relationship capital), this research contributes to RBV theory by identifying how these resources impact ICT reseller SMEs' sustainability and competitive positioning. The study also underscores the need for ICT resellers to strategically leverage their resource bundles to drive innovation and maintain market relevance in a dynamic and competitive environment.

Stakeholder Theory (Freeman, 1984) further informs this research by highlighting the importance of managing relationships with both internal and external stakeholders. The study extends this theoretical framework by focusing on the unique context of ICT reseller SMEs, emphasising that effective stakeholder management—whether through partnerships, customer relationships, or internal alignment—plays a critical role in driving business sustainability. By exploring the impact of stakeholder synergies on business outcomes, this research advances



Stakeholder Theory by showing how stakeholder engagement can enhance innovation capabilities and market positioning in the ICT reseller sector.

Dynamic Capabilities Theory (Teece, Pisano, and Shuen, 1997) complements RBV and Stakeholder Theory by addressing the need for firms to adapt, renew, and reconfigure their resources in response to changing market conditions. This study contributes to the Dynamic Capabilities framework by illustrating how ICT reseller SMEs in Malaysia can develop agility, growth, and resilience through continuous learning, recognizing emerging opportunities, revitalizing existing resources, and responding to market changes. The research emphasises the importance of integrating feedback mechanisms and dynamic learning loops to refine strategies and enhance operational efficiency, thereby contributing to the ongoing theoretical discourse on how firms can sustain long-term competitiveness through dynamic capabilities.

The creation of a Business Model Innovation (BMI) framework in this study synthesizes these theories into a cohesive structure that supports the sustainable growth of ICT reseller SMEs. By integrating RBV, Stakeholder Theory, and Dynamic Capabilities, the study provides new theoretical insights into how ICT resellers can navigate the challenges of the Malaysian market, adapt to technological trends, and meet evolving customer needs. This theoretical contribution is particularly significant as it contextualizes these frameworks within the ICT reseller sector, an area that has been underexplored in previous research, thereby offering both theoretical and practical guidance for sustaining business success in this industry.

### 5.7.2 Practical Contribution

The findings of this research offer several practical insights that ICT reseller SMEs in Malaysia may find helpful. The BMI framework developed through this study serves as a useful guide for businesses seeking to navigate challenges in an increasingly dynamic and competitive environment. While it does not claim to provide a one-size-fits-all solution, the framework highlights key areas like resource management, stakeholder engagement, and strategic innovation that firms can focus on to strengthen their sustainability efforts.

For business practitioners, the framework aims to provide practical guidance on strategic decision-making. It emphasises the importance of balancing resource allocation and managing stakeholder relationships while remaining adaptable to market changes. This approach may assist ICT resellers in better organizing their financial, human, and intellectual resources, which could help them address industry challenges more effectively.

In terms of policy, the study offers insights into some of the unique difficulties ICT reseller SMEs face in Malaysia. Policymakers might find value in these findings when considering initiatives or support programs that cater to this sector's specific needs. Additionally, industry stakeholders, such as investors or trade associations, could benefit from understanding the framework's emphasis on sustainable growth and competitiveness.

Beyond the ICT sector, the framework may also offer general lessons for other industries. It provides a perspective on how businesses can address resource management and stakeholder relationships, which could be relevant across various contexts. The research further highlights the potential role of these SMEs in contributing to the broader digital economy in Malaysia, which, in turn, may foster job creation and technological development.

Finally, the insights from this study could be incorporated into AI tools and decision-support systems, helping businesses optimize their strategies through data-driven approaches. By leveraging AI platforms, companies could further enhance their resource management and stakeholder engagement efforts, allowing them to remain agile in a rapidly evolving industry.

In conclusion, while this research does not claim to have all the answers, it hopes to offer practical guidance and insights that ICT reseller SMEs, policymakers, and industry stakeholders in Malaysia might find useful as they navigate their own paths to sustainability and growth.

## **5.8 Limitation of the Study**

While this research provides significant insights into BMI framework for ICT reseller SMEs in Malaysia, there are a few limitations that must be acknowledged. The study relied on qualitative data from a relatively small sample of ICT reseller SMEs. Although the semi-structured interview methodology provided in-depth insights, the sample size may not fully represent the diversity and complexity of Malaysia's ICT reseller SME population. The findings may reflect the perspectives of a limited subset of companies, potentially introducing biases related to the specific experiences and challenges encountered by the interviewed participants.

This study primarily used qualitative methods to gather data, relying on interviews with ICT reseller SMEs. While this approach can get detailed insights into the business models and challenges these SMEs face, qualitative research is inherently subjective. The personal views and experiences of both the respondents and the researcher may have influenced the interpretation of the data, potentially

introducing bias. Although qualitative research offers depth, it lacks quantitative studies' statistical rigour and objectivity. The absence of quantitative validation in this study may limit the robustness of the findings, and future research incorporating both qualitative and quantitative methods could provide more balanced results.

The study addresses specific technological challenges and trends faced by ICT reseller SMEs, such as cloud computing and the obsolescence of traditional ICT services. However, technology evolves rapidly, and the relevance of the identified challenges and solutions may diminish over time. As technological trends shift, the BMI framework proposed in this research may need to be revisited and updated to remain applicable in a constantly changing technological landscape. The fast pace of technological change is a significant limitation, as the research findings may become outdated relatively quickly.

The BMI framework presented in this study assumes that ICT reseller SMEs have a certain level of resources and stakeholder cooperation to implement the proposed strategies. In practice, many SMEs face significant resource constraints, particularly in terms of financial, human, and intellectual capital, which may hinder their ability to develop the dynamic capabilities outlined in this research. Additionally, aligning stakeholder interests, particularly with external partners such as principals and distributors, may prove more challenging than anticipated. The framework's applicability could be limited by these resource and stakeholder constraints, which were not fully explored in the study.

The findings presented in this study represent a snapshot of the current challenges and opportunities faced by ICT reseller SMEs in Malaysia. Wider macroeconomic factors such as government policies, economic volatility, and regulatory changes were not highlighted by the respondents, potentially because these factors have been accepted as constants rather than immediate challenges.

However, business dynamics, market conditions, and technological trends are continuously evolving. The BMI framework proposed in this study is based on the present context and may not account for future shifts in the industry.

In acknowledging these limitations, the study provides a foundation for future research to expand its scope, incorporate more diverse and larger samples, employ mixed methods, and account for external factors that influence the sustainability of ICT reseller SMEs.

## **5.9 Recommendation for Future Research**

The current study has provided insights into BMI for ICT reseller SMEs in Malaysia, and future research should aim to validate the proposed BMI framework by expanding the sample size to include more ICT reseller SMEs from other states or regions, such as across the ASEAN market. By doing so, the findings can be generalized, and the applicability of the BMI framework across different cultural and economic contexts can be assessed.

A quantitative study is recommended to strengthen the results. Quantitative data gathered through structured questionnaires could be tested using correlation and regression analysis to identify key business sustainability, agility, growth, and resilience predictors.

In addition to quantitative studies, future research should also focus on an in-depth qualitative investigation of how policy, government support, and market structures influence the success of ICT resellers SMEs. This would provide a broader understanding of external factors affecting their sustainability.

It is also recommended that future studies expand the sample to include respondents from all levels of management within ICT reseller SMEs, including top

executives, middle managers, and operational staff. This would provide a more comprehensive view of the organisation's performance and how BMI strategies are implemented across different tiers.

## **5.10 Recommendation for Stakeholders**

### **5.10.1 Internal Strategies for ICT Reseller SMEs**

The BMI framework for business sustainability of the ICT reseller SMEs in Malaysia could be a powerful tool for the resellers to manage and optimize their resources, relationships and capabilities effectively. This framework addresses the internal needs of ICT resellers by focusing on three core pillars—Agility, Growth, and Resilience—while establishing strong foundational components of Resource Management and Stakeholder Management. Here's how ICT resellers can implement this internally:

#### **1. Equilibrium in the 3R (Recognise, Revitalise, Respond) Cycle:**

- ICT resellers should continuously engage in the 3R cycle to maintain a balanced approach to their challenges. Recognising challenges or emerging trends, revitalizing resources and capabilities, and responding effectively will ensure they stay adaptable and aligned with market needs. This cycle encourages a proactive, iterative approach to BMI, making it possible to quickly adapt to industry shifts.

#### **2. Leveraging Six Capitals with Resource Management**

- To build a solid foundation, ICT resellers must effectively utilize the six types of capital—financial, manufactured, intellectual, human, social and relationship, and natural. By aligning these resources,

they can create internal value that supports sustainable growth. Understanding their strengths in each capital enables them to make informed decisions and implement the appropriate level of innovation, boosting both their operational capabilities and competitive edge.

### **3. Stakeholder Management as a Balancing Tool**

- Balancing internal and external stakeholders is crucial for sustainability. Internally, this means fostering a collaborative culture where employees are motivated and engaged. Externally, it means building trust and synergy with partners, suppliers, and customers. People come and go very quickly, by managing these relationships effectively, ICT resellers can create a supportive network that strengthens resilience and growth potential.

### **4. Leadership Commitment and Strategic Planning for Agility, Growth, and Resilience**

- Achieving the three pillars of Agility, Growth, and Resilience requires strong leadership commitment and strategic planning. Leaders need to establish clear company direction and objectives, ensuring alignment across all levels. A well-defined strategic plan, combined with leadership support, enables resellers to stay agile, capitalize on growth opportunities, and enhance resilience against market fluctuations.

### **5. Continuous Feedback and Learning Loops**

- Implementing feedback and learning loops ensures ongoing improvement. By regularly assessing performance, gathering feedback from stakeholders, and learning from successes and failures, ICT resellers can refine their strategies and operations. This

continuous improvement cycle strengthens their ability to respond to industry changes and promotes a culture of innovation.

With this framework, ICT resellers can strike a balance between operational stability and innovation. By understanding their internal capabilities and resources, they can make strategic decisions about the level of innovation needed to stay competitive. Knowing that their ultimate goal is to be agile, grow, and be resilient, ICT resellers can align their actions with the company's direction, supported by a commitment to leadership and forward-thinking planning.

### **5.10.2 Strategies for External Stakeholders**

Based on the practical contributions of this research, here are few recommended strategies for stakeholders – business practitioners, policymakers, industry stakeholders, investors, and trade associations that can help sustain and strengthen ICT reseller SMEs in Malaysia.

#### **1. Enhancing Attractive and Effective Financial Solutions**

- The current offerings from banks and government programs are often perceived as unattractive and insufficiently beneficial, leading to low uptake among ICT resellers. To address the financial challenges ICT resellers face, stakeholders should encourage and facilitate access to a wider range of funding sources. This could involve government-backed grants or low-interest loans specifically designed for ICT resellers implementing innovative business models. Additionally, trade associations and industry bodies could partner with financial institutions to offer tailored funding solutions that meet the sector's unique needs, including self-funded options, bank financing, and venture capital. By diversifying financial



support would help ICT resellers better manage cash flow and invest in key resources, supporting both resilience and growth.

## **2. Strengthen Skills Development and Talent Retention Programs**

- Human capital is essential for ICT reseller sustainability, especially with the ongoing shift toward a service-oriented industry. Often, skills acquired in tertiary education do not align with practical, industry-specific demands. Industry stakeholders should collaborate with educational institutions and training providers to create certification and upskilling programs that equip more students and employees with relevant technical and managerial skills. In addition, implementing incentives for employee retention—such as flexible work options, competitive benefits, and career development opportunities—will help ICT resellers retain critical talent in a highly competitive job market.

## **3. Foster Strategic Partnerships and Collaboration Networks**

- Building strategic alliances is key for ICT resellers to access new markets, improve service offerings, and leverage shared resources. Industry associations can play a central role in organizing networking events, collaborative platforms, and partnerships between ICT resellers and larger corporations, such as hardware vendors or cloud providers. By promoting partnerships and collective innovation initiatives, resellers can reduce operational costs, enhance service quality, and boost their overall competitiveness. Collaboration also helps mitigate the dependency on a single principal or vendor, creating a more resilient business structure.

## **4. Promote Digital Transformation and Data-Driven Decision Making**

- Policymakers and industry leaders should encourage ICT resellers to adopt digital tools and technologies to enhance operational efficiency and customer experience. Introducing incentives for digital transformation, such as tax breaks or subsidies for technology adoption, could make these advancements more accessible to SMEs. Stakeholders should also support ICT resellers in adopting AI-driven decision-support systems, which can optimize resource allocation, improve customer engagement, and enable quicker, data-informed responses to market changes. This approach will empower ICT resellers to stay agile and competitive in an increasingly digital industry.

#### 5. Develop a Policy Framework that Supports Sustainable Growth

- Policymakers should consider developing a regulatory framework that addresses the specific needs of ICT resellers, such as fair competition practices, intellectual property rights protection, and simplified licensing processes. By creating supportive policies, the government can ensure a level playing field for ICT resellers competing against larger, foreign-based companies. Furthermore, a focus on sustainability in policy, such as incentives for environmental initiatives and corporate social responsibility, would encourage ICT resellers to align with global trends, improving their market positioning and appeal to conscious consumers.

### 5.11 Conclusion

This research explored the challenges faced by ICT reseller SMEs in Malaysia and proposed a BMI framework to enhance their sustainable growth.

Through a detailed analysis of resource management, stakeholder management, and strategic innovation, this study has highlighted the fundamental elements that contribute to business sustainability. The ICT reseller SMEs in Malaysia operate in a highly competitive environment characterised by market dynamics and competition, technological trends, evolving customer and market needs, and operational inefficiencies.

The proposed BMI framework addresses these needs by integrating dynamic capabilities—Recognize, Revitalize, Respond and Feedback and Learning Loop—within the business structure, ensuring that ICT resellers can effectively manage their resources and stakeholder relationships to drive innovation and stay competitive. The framework emphasises the importance of agility, growth, and resilience, supported by strong resource management practices and strategic stakeholder engagements. This research provides a valuable roadmap for ICT resellers seeking to improve their market positioning and achieve long-term sustainability.

However, it is important to acknowledge the limitations of this study. The research reflects a snapshot of current challenges faced by ICT reseller SMEs, and the proposed BMI framework may need to be adapted as market conditions evolve. Further research, particularly longitudinal studies, will be necessary to assess the long-term effectiveness of the framework. Additionally, expanding the sample size and conducting quantitative studies could enhance the generalizability of the findings.

In conclusion, this thesis contributes to understanding BMI for ICT reseller SMEs in Malaysia, providing a practical framework to guide them toward sustainable business growth. By fostering dynamic capabilities and aligning

innovation with market demands, these SMEs can survive and thrive in an increasingly complex and competitive landscape.

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# **APPENDICES**

## **Appendix A: Case Study Protocol**

### **RESEARCH TITLE**

**Establishing Business Model Innovation (BMI) Framework for  
Business Sustainability: A Case Study on ICT Resellers SMEs in Malaysia**

### **Case Study Protocol and Implementation**

**Student's name:**

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**Supervisor:**

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## **CASE STUDY PROTOCOL**

### **Establishing Business Model Innovation (BMI) Framework for Business Sustainability: A Case Study on ICT Resellers SMEs in Malaysia**

#### **A. INTRODUCTION TO THE CASE STUDY AND PURPOSE OF THE PROTOCOL**

##### **A1. Definition of a Case Study**

Yin (2003, p.13): “A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident.”

##### **A2. Relevance of the Case Study Method to the Research**

The research plan is to gain a deeper understanding of the challenges and elements important for ICT resellers to achieve business sustainability. It is organised into a few phases:- First is by reviewing the current challenges faced by the ICT resellers in Malaysia and identifying the elements for business sustainability. Second is by reviewing the literature on business sustainability, stakeholder, resource-based view and dynamic capabilities to conceptualise the elements essential for business model innovation. This research is intended to induce the application of the model for business sustainability for the ICT resellers; hence the primary research is to be carried out.

The research is to be carried out on the ICT resellers that meet the criteria as an SME to further validate the BMI framework for ICT reseller's business sustainability by addressing the research questions below:-

- What are the challenges experienced by the ICT resellers in sustaining their business in Malaysia?
- What are the elements of business model innovation (BMI) to ICT resellers' business sustainability in Malaysia?
- How does the proposed business model innovation (BMI) framework intensify ICT resellers' sustainable growth in Malaysia?

### **A3. Purpose of the Case Study Method**

The case study method is aimed to achieve the following objectives:-

- To examine the challenges experienced by the ICT resellers in sustaining their business in Malaysia
- To identify the elements of business model innovation (BMI) in ICT resellers' business sustainability in Malaysia
- To recommend a business model innovation (BMI) framework to intensify ICT resellers' sustainable growth in Malaysia

### **A4. Role of this Protocol**

This protocol serves as the primary guideline for conducting the case study research. Researchers are expected to adhere to this protocol in pursuing the line of inquiry into each case. This protocol makes up the standardised agenda for the researcher to follow for the achievement of the stated objectives. The reliability of the case study method across investigators and cases can be ensured by adhering to the case study protocol.

## **B. DATA COLLECTION PROCEDURES**

### **B1. Unit of Analysis**

This study will only involve the selected stakeholders or key players of the ICT resellers in Malaysia. The stakeholders' representatives are the main respondents/informant for the case study data collection. The case study report will gear towards the ICT industry's stakeholder organisation.

### **B2. Case Selection**

The study targeted respondents from Malaysian ICT reseller SMEs with headquarters located in Kuala Lumpur, which serves as a hub for the ICT sector. A total of 12 ICT reseller SMEs were approached, each selected based on specific criteria to ensure they align with the research objectives. The selection criteria for respondents are as follows: (i) they must have been in operation for a minimum of five years, and (ii) they should have a sales turnover of less than RM20 million or employ fewer than 75 full-time employees

The cases for this study involved data collection by semi-structured face-to-face interviews mainly targeted to the sequence of the founder, CEO, board of directors, or top management, preferably those who are in the company for five years that are involved in the strategic decision process. Keeping close contact with the respondents and helping them to work out their responses will be part of the key process in order to ensure that the result of the case study is robust in order to enhance the credibility and the level of confidence for the research finding that essentially makes a significant contribution to the industry.

### **B3. Selection Procedure**

- i. The first criterion of this research focuses on the Malaysian ICT reseller SMEs with headquarters located in Kuala Lumpur, which serves as a hub for the ICT sector, and that are in operation for a minimum of 5 years, have an annual sales turnover of more than RM300,000 and less than RM20 million or less than 75 full-time employees. This is based on the assumption that these incumbent firms have established their business model and have a track record of performance. Startup businesses, on the other hand, are often still developing and testing their business model and may not have a reliable performance record.
- ii. The second criterion is the willingness of respondents to participate in this study.
  - The interview duration would be more than one hour for each case.
  - The respondents will be asked to read and submit a signed informed consent.

### **B4. Procedure for Conducting of Case Study**

#### **i. Seeking Consent and Agreement with Respondent**

Consents were to be obtained from respondents after targeted respondents were identified based on established criteria for the respondents. Respondents were provided with the case study protocol, informed consent, and the research question in advance.

#### **ii. Arranging Interview**

In arranging the interview, as it was an in-depth interview and required a detailed explanation from the respondent, the interview technique adopted semi-



structured and open-ended questions aimed to stimulate the respondents' input based on their experience in the industry. Due to the pandemic, the priority of the interview session was arranged online using Zoom, unless agreed by the respondents to have it face-to-face.

### **iii. Conducting interview**

The research targeted respondents that can generate useful and relevant insights. In-depth interviews are insightful and allow valuable findings to be identified. A semi-structured interview with open-ended questions will be adopted. The method is to draw attention to the respondent's experience in the ICT industry and their opinions on the critical success criteria of strategic management inside an ICT to lean toward extensive possible views in strategy for business sustainability to develop a pattern in the data processing.

### **iv. Recording of the interview**

The interviews will be recorded using electronic recording equipment or through an online platform if it's an online interview.

### **v. Transcribing data and verbatim**

Transcription refers to the process of reproducing spoken words, such as those from an audiotape interview, into written text. This research used verbatim to produce an original data transcription from the interviews.

## **C. OUTLINE OF CASE STUDY REPORT**

The presentation of each case study adopts a report format that is more akin to the investigative inquiry by addressing each of the stated objectives in the form of verbatim.

The outlines of the case study report are as follow:

## **C1. Content of the Report**

- i. It will start with introducing the case and the respondent's background. A brief description of the company's background in the ICT industry, such as
  - Their history, organisation chart, role and market strength
  - The financial performance is based on the published report from SSM, including the growth rate and profitability
  - Special profiles such as partnership status and accreditation with principals
- ii. Description and report based on the research objectives

### **Research Objective #1: To examine the challenges experienced by the ICT reseller SMEs in sustaining their business in Malaysia**

Brief description of the organisation's key challenges and concerns in the current market. The key points will contribute to the justification of the proposal and validation of the elements.

### **Research Objective #2: To identify the fundamental elements of business model innovation (BMI) in ICT reseller SMEs' business sustainability in Malaysia**

Identification of the key value drivers for business sustainability of ICT resellers. (A clear explanation of the factors contributing to the sustainability of the ICT resellers and the details on the factors that explain the value drivers' effectiveness level of the organisation. The description has to be explicit and detailed. Includes the factors that can be overcome and addressed and enduring factors that would not be easily overcome and addressed.

**Research Objective #3: To recommend a business model innovation (BMI) framework to enhance the sustainable growth of ICT reseller SMEs in Malaysia**

Addressing and highlighting the factors brought up in the analysis. Suggestion or recommendation of the key drivers and how they are interconnected in detail.

**D. CASE STUDY QUESTIONS**

Below are the questionnaires meant as a guideline, as they do not apply to every candidate.

#	Main Questions	Additional Questions	Thematic
	Introduction (similar to consent form)		
	Respondent's information		
	<b>D1. General questions on the stakeholders of ICT resellers in Malaysia</b>		
a.	Role in the company		
b.	Years of experience		
c.	How was it founded, and how long has the organisation existed		
d.	What are the key business activities and types of services?		
	Which industry that the organisation involved in?		
e.	Organisation chart - who is in the top management (are they involved on the ground)		
f.	How is the performance of the company? Growth rate-yoy / profitability		
g.	How many employees, and what is their role? (skew to which area-such as technical/sales)		
c.	Partnership status / Accreditation with principals		
	<b>D2. Understanding the challenges of the industry</b>		
RO1	<b>To examine the challenges experienced by the ICT resellers in sustaining their business in Malaysia</b>		
RQ1	<b>What are the challenges experienced by ICT resellers in sustaining their business in Malaysia?</b>		

#	Main Questions	Additional Questions	Thematic
1a	Do you see the value of ICT resellers diminishing? What are the key challenges faced by the industry as a reseller?  How do these challenges affect your business operations, growth, and profitability?	Can you list out what would be the key issues and challenges faced by the company moving into the next business cycle?  What new business models do you see emerging in your industry? Is the basis for competition changing?	Challenges
1b	How have you sustained for the past three years?  How do you address or overcome these challenges? Are there any strategies or practices or changes that you implement?	What specific market factors, competition, or regulatory issues pose challenges to your business sustainability?	Sustainability
<b>D3. Identify the value drivers from a strategic perspective</b>			
<b>RO2</b>	<b>To identify the elements of business model innovation (BMI) in ICT resellers' business sustainability in Malaysia</b>		
<b>RQ2</b>	<b>What are the elements of business model innovation (BMI) to ICT resellers' business sustainability in Malaysia?</b>		
#	Main Questions	Additional Questions	Thematic
2a.	What is your financial model and the key financial challenges you face in sustaining your business?	What is the best financial model for ICT resellers in supporting their business? Self funded, built up capital, debts, loan, equity, source of capital, invest in product development?	Financial Capital
2b.	How do you manage your inventory and supply chain or assets or infrastructure facilities to ensure sustainable operations?	Do you sell your own product or services? What is your value proposition?	Manufactured Capital
2c.	Do you have intellectual property such as own patents, copyrights, trademarks, trade secrets, software, databases, and other forms of knowledge-based assets that contribute to the competitiveness and innovation of the business? how do you manage and what are the main barriers in developing and utilizing IC for your business sustainability.		Intellectual Capital

#	Main Questions	Additional Questions	Thematic
2d.	How do you attract, retain, and develop talent to support your company sustainable growth?	How do you grow your staff strengths? What training and development programs do you provide to enhance employee capabilities for business sustainability?	Human capital
2e.	How important is the value network - What and How do you manage and capitalised on the relationships with customers, distributors, vendors, industry association/government ?	<p>What do you think the customer wants from a reseller? What is the key factor to delight your customers</p> <p>Who are your partners, and how do they support you in your business sustainability?</p> <p>Who do you see as your competitor? How do you fend off your competitors</p> <p>Have your company capitalised on the value network in providing value to the customers for business sustainability?</p>	Social capital
2f.	What is your company's role in renewable energy and maintaining a green environment?		Natural capital
2g.	How is innovation important to your business? The willingness and the agility.	<p>How efficient is your organisation in adopting innovation? Do you invest in innovation R&amp;D, custom made, structured process</p> <p>What are the key innovation challenges you face in achieving business sustainability?</p> <p>How do you foster a culture of innovation within your organisation to drive sustainability?</p>	Strategic Innovation

#	Main Questions	Additional Questions	Thematic
		In your opinion, what are the key components or dimensions of a business model innovation framework that would support sustainable growth for ICT resellers in Malaysia?	
2h.	What strategies or initiatives have you implemented to drive sustainable growth in your ICT reseller business?	What is strategic plan for your business - 3years or 5 years	Strategic Management
		How effective is the management of the financials and capitals of the business?	

#### **D4. Connecting the value drivers for business sustainability**

**RO3 To recommend a business model innovation (BMI) framework to intensify ICT resellers' sustainable growth in Malaysia**

**RQ3 How does the proposed business model innovation (BMI) framework intensify ICT resellers' sustainable growth in Malaysia?**

#	Main Questions	Additional Questions	Thematic
3a.	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?	Mission
3b.	What are the critical success factors for business sustainability for ICT resellers		Success factor
3c.	How should the ICT resellers connect the various success and create a long-term sustainability business? What do you think of the future of ICT sustainability	Are 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 ICT business continuity?	Vision
3d.	What is your future plan for your business?	What changes would you make for your company for now, 3years from now, and 5 years in the future	Business continuity

## **E. NATURE OF INTERVIEW**

The interview nature is independent, conversational-based discussion with an open-ended approach with the respondents. While conducting the interview, the following processes will be observed:-

1. The interview will be semi-structured with the questions listed above.
2. The interview adopts an open-ended question approach. It is guided by a semi-structured interview approach and confines the discussion focused on the subject nearest possible. However, a certain degree of allowance for deviation from the topic is permissible to obtain additional data that may not have been identified in the earlier stage of the study.
3. It is paramount for the researcher to listen attentively when the respondent speaks. Avoid interrupting.
4. Use an audio recording device to capture the discussion. However, request permission from the respondent before beginning to record.
5. Take notes of the discussion to assist in analysis.
6. Verbatim will be transcribed for the details of the interview for further data analysis.
7. Interview data will be stored and saved by the researcher on a personal drive and in cloud storage.

**END OF CASE STUDY PROTOCOL**

## Appendix B: Informed Consent Form



### RESEARCH CONSENT FORM

**Research Title: Establishing Business Model Innovation (BMI) Framework for Business Sustainability: A Case Study of ICT Resellers SMEs in Malaysia**

Appreciate your time and effort in participating in this research study. This study intends to establish a BMI framework to support business sustainability, and the interview is strictly confidential and anonymous. Please do acknowledge that participation in this research is completely voluntary. You have the right to accept or reject this invitation to participate. The interview will take approximately 60-90 minutes to complete. There will be no compensation for participation. This study collects, analyses and reports data without compromising respondent identities.

The convention of confidentiality is upheld as a means to protect the privacy of all participants, in accordance with the granted ethical approval by the UWTSD Department of Management's ethics committee. If you have any concerns or questions and wish to reach out to the independent party for further information, kindly contact my director of studies, Associate Prof. Dr. Fakhrol Anwar Zainol.

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In consideration of my participation in the foregoing, the undersigned acknowledge and agree to the following:

- i) I have given information about the research title and discussed the research project with the researcher.



- ii) I understand that the data collected from my participation will be used for this research study purpose, and I consent for it to be used in that manner.
- iii) I have had an opportunity to ask the researcher any questions I may have about the research and my participation
- iv) I understand that my participation in this research is voluntary, I am free to refuse to participate, and I am free to withdraw from the research at any time.
- v) I understand that I have the right to withdraw my data from the study at any time.
- vi) I understand that any information recorded in the investigation will remain confidential, and no information that identifies me will be made publicly available.
- vii) I consent to be a participant in the project and audio recorded as part of the project.

By signing below, I am indicating my consent

**Name :**

**Signature :**

**Date:**

**Principal Researcher Contact Details:**

Name: Miss Yap Choy Yee  
Degree: DBA Professional Doctorate  
Student ID: 0072VMNVMN1017  
Email:  
Contact No.:

**Director of Studies:**

Name: Associate Prof. Dr. Fakhrul Anwar Zainol  
Email:  
Contact No.:

## **Appendix C: Research Debriefing Form**

### **RESEARCH DEBRIEFING FORM**

**Research Title: Establishing Business Model Innovation Framework for Business Sustainability: A Case Study on ICT Resellers SMEs in Malaysia**

Thank you for your participation in this research. In this research, it was important to reserve the information pertaining to some aspects and anticipated outcomes from our conversation. Since your participation is completed, I will define further the conceptual framework and strategic implications for you. I am ready to answer any of your questions, and you have the right to decide whether to include your data in this research.

#### **About this research**

The overall aim of this research is to develop an effective business model innovation (BMI) framework for business sustainability of ICT reseller SMEs in Malaysia. This framework will help the ICT resellers be completely clear about their business model and lay a structured foundation for future innovation while continuing to deliver value in the dynamic environment. The research shall lead to the following objectives:-

1. To examine the challenges experienced by the ICT reseller SMEs in sustaining their business in Malaysia
2. To identify the fundamental elements of business model innovation (BMI) in ICT reseller SMEs' business sustainability in Malaysia
3. To recommend a business model innovation (BMI) framework to enhance the sustainable growth of ICT reseller SMEs in Malaysia

### **Right to withdraw data**

Please sign below if you do or do not grant permission to have your interview data included in this research prior to debriefing without any penalty or loss of benefits:

\_\_\_\_\_ I do grant permission for the data collected during the interview to be included in this research.

\_\_\_\_\_ I do not grant permission for the data collected during the interview to be included in this research.

I am Yap Choy Yee, a professional doctorate (DBA) postgraduate research student of the faculty of business management at the University of Wales Trinity Saint David. If you have any queries after this, kindly contact the director of studies, Associate Prof. Dr. Fakhrol Anwar Zainol.

Please sign below to indicate that you have been debriefed and all your questions have been answered.

Name \_\_\_\_\_ of \_\_\_\_\_ Participants \_\_\_\_\_ :  
Signature \_\_\_\_\_ :

Date \_\_\_\_\_ :

If you wish to receive a copy of the final report of this study, kindly contact the principal researcher