

**EXPLORING THE RELEVANCE OF INTELLECTUAL CAPITAL  
RECOGNITION IN THE FINANCIAL STATEMENTS OF LISTED  
INSURANCE COMPANIES IN NIGERIA**

**By**

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**A thesis submitted in fulfilment of the University's requirements for the  
award of the Degree of Doctor of Business Administration (DBA)**

**February 2023**

## **DECLARATION**

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

Signed ..Emmanuel Oloke..... (candidate)

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## **STATEMENT 1**

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

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## **STATEMENT 2**

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

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## ABSTRACT

The purpose of this research is to explore the relevance of Intellectual Capital recognition in the financial statements of listed insurance companies in Nigeria with a focus on the cities of Abuja and Lagos. The scope of this research was limited to the review and analysis of the relevance of intellectual capital recognition in the financial statements of listed insurance companies for the period 1st January 2015 to 31 December 2020 in developing countries, using Nigeria as a case study. This study employed a mixed method (quantitative and qualitative) research design; adopting the purposive or judgement sampling method. This research utilised a combination of tools: SPSS, Multiple Regression analysis, NVivo, and Word Cloud. The field survey questionnaire, interview and content analysis were utilised with 176 questionnaires distributed. Interview data were collected from 20 out of 30 Listed Insurance companies. The response rates from the field survey and interview were 141 respondents representing 80.1%, and 20 representing 66.7% respectively. Quantitative and qualitative analyses of financial statements and annual reports of listed insurance companies were conducted. In total, 116 annual reports were analysed using NVivo. The research showed that the worth of listed insurance companies in Lagos is higher than those of Insurance companies based in Abuja. This research is one of the few to introduce the “Business recipe or strategic capital”; as the fourth capital as one of the categories of intellectual capital in listed insurance companies in Abuja and Lagos. The research established that intellectual capital components do have individual and joint effects on the performances and valuations of listed insurance companies in Abuja and Lagos. This research produced the first intellectual capital research on listed insurance companies under three recapitalisation regimes since the recapitalisation event of 2007 and during an unstable economic condition which included the covid-19 period. This research covers six years of listed insurance companies including the years 2018, 2019 and 2020, the years of varied recapitalisation introduced by the National Insurance Commission of Nigeria (NAICOM). This is the first research to apply mixed methods and data triangulation in intellectual capital research relating to the insurance industry in Abuja and Lagos, Nigeria. The results and findings have varied inferences for policy, practice and research. A local Intellectual Capital report should be encouraged as part of a mandatory management report in Nigeria as already being practised in some developed countries. The effect of covid-19 restrictions and guidelines impacted the research and resulted in changes in the strategy of the research. Travel restrictions due to covid-19 posed a major challenge for the researcher. For the full benefit of their Intellectual Capital to be derived by companies, measurement and recording of Intellectual Capital should be included in the business accounting system. Future research should include the insurance brokers, and unlisted insurance companies together with the listed insurance companies

Keywords: Intellectual capital; Insurance companies; Financial statements; Recognition; Relevance; NVivo.

## **SUPERVISORS' APPROVAL**

This doctoral thesis is hereby submitted for examination with our approval as the University supervisors.

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# LIST OF PUBLICATIONS

## Journal Publications

### JP1 (Published)

Omoyele, O.S., Oloke, E., Olabisi, F. and Aderemi, T.A., 2022. Economic Growth, Youth Unemployment and Poverty in Nigeria: A Granger Causality Approach. *Acta Universitatis Danubius. Economica*, 18(4).

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[www.journal-innovations](http://www.journal-innovations).



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### **PP1.**

Oloke, E. 2018. 'Intangible Assets of Success for the Entrepreneur'. *Topaz Club Annual Cancer Charity Symposium*, 26<sup>th</sup> May 2018, Chiswick Town Hall, London UK.

### **PP2.**

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## **DEDICATION**

To my late mother - Mrs Margaret Keke Akindele. (nee Okpaise)

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# TABLE OF CONTENTS

<b>DECLARATION</b> .....	2
<b>ABSTRACT</b> .....	3
<b>SUPERVISORS' APPROVAL</b> .....	4
<b>ACKNOWLEDGEMENT</b> .....	5
<b>BIOGRAPHY</b> .....	7
<b>LIST OF PUBLICATIONS</b> .....	8
<b>DEDICATION</b> .....	10
<b>TABLE OF CONTENTS</b> .....	11
<b>LIST OF TABLES</b> .....	17
<b>LIST OF FIGURES</b> .....	20
<b>LIST OF ABBREVIATIONS</b> .....	22
<b>CHAPTER ONE: INTRODUCTION</b> .....	25
1.1. Background to the Research .....	25
1.2. Defining the Problem.....	28
1.3. Motivation and Significance of the Research.....	29
1.3.1. Motivation .....	29
1.3.2. Significance of the Research .....	30
1.4. Scope of Research .....	31
1.5. Aim and Objectives of the Research .....	31
1.5.1. Aim .....	31
1.5.2. Objectives of the Research .....	32
1.6. Research Questions .....	32
1.9. Definitions of terminology and concepts.....	33
1.9. Summary of Research Methodology .....	35
1.9. Synopsis of the Research.....	37
<b>CHAPTER TWO: LITERATURE REVIEW</b> .....	40
2.1. Introduction .....	40
2.2. Intellectual Capital: Definition and Concepts.....	40
2.2.1. Historical Background of Intellectual Capital .....	43
2.2.2. Intellectual Capital Value-Added Categories .....	44
2.2.2.1. Value added Human Capital.....	49
2.2.2.2. Value-Added Structural Capital .....	50
2.2.2.4. Value Added Business Recipe (Value added Strategic capital): .....	53
2.3. Recognition of Intellectual Capital: Definition and Concept .....	57

2.4	Factors Affecting Intellectual Capital Recognition .....	63
2.5	Relevance of Intellectual Capital.....	65
2.6	Effects of Intellectual Capital on Financial Statements.....	67
2.7	Intellectual capital recognition practices .....	68
2.8	Intellectual Capital and Financial Statements for Intangible Assets Recognition.....	71
2.9	Justification for intellectual capital recognition .....	77
2.10	Prior Studies on Intellectual Capital Recognition .....	80
2.10.1	Some Intellectual Capital Studies in Developing Countries in Africa .....	80
2.10.2	Some Intellectual Capital Studies in Developed Countries .....	84
2.11	Limitations of Past Research on Intellectual Capital Recognition .....	89
2.12	Intellectual Capital and Intangible Assets .....	90
2.13	Attributes of Intellectual Capital Value-Added Components.....	91
2.14	International Financial Reporting Standard (IFRS) on Insurance Business .....	93
2.15	Performance reporting .....	94
2.16	Performance Model as categorised by Hansen & Mowen (2005).....	94
2.16.1	Key performance indicators.....	94
2.16.2	Economic Value Added (EVA).....	95
2.16.3	Market Value Added (MVA) .....	95
2.16.4	Future Growth Value (FGV) .....	95
2.16.5	Return on Equity (ROE).....	96
2.16.6	Return on Assets (ROA).....	97
2.16.7	Return on Capital Employed (ROCE) .....	97
2.17	Gaps and Appraisals in Literature .....	98
2.17.1	Appraisals .....	98
2.17.2	Gaps.....	98
2.18	Summary of Research Gap .....	103
2.19	Chapter Summary .....	104
<b>CHAPTER THREE.....</b>		<b>107</b>
<b>THEORETICAL AND CONCEPTUAL FRAMEWORKS.....</b>		<b>107</b>
3.0	Introduction .....	107
3.1	Resource-based View Theory.....	107
3.2	Other Supporting Theories of Intellectual Capital Recognition.....	110
3.2.1	Stakeholder Theory.....	111
3.2.2	Value Theory .....	112
3.2.3	Asset Basis Theory of Intellectual Capital .....	113
3.2.4	Signalling Theory .....	115
3.2.5	Legitimacy Theory .....	117

3.2.6 Agency Theory .....	119
3.2.7 Impression Management Theory .....	120
3.2.8 Decision Usefulness .....	123
3.2.9 Stewardship Theory .....	125
3.2.10 Intellectual property theory .....	126
3.3 Justification of Conceptual Framework.....	134
3.4 Proposed Conceptual Framework.....	135
3.5 The Intellectual Capital Charts .....	139
3.6 Financial Statements Recognition of Intellectual Capital (H1).....	140
3.7 Company Profitability (H2).....	140
3.8 Company Age (H3) .....	141
3.9 Company Leverage Status (H4) .....	142
3.10 Capital Market Valuation (H5).....	143
3.11 Economic Value H6.....	143
3.12 Summary of Hypotheses.....	144
3.13 Chapter Summary .....	144
<b>CHAPTER FOUR .....</b>	<b>146</b>
<b>RESEARCH METHODOLOGY .....</b>	<b>146</b>
4.1 Introduction .....	146
4.2 Research Design .....	147
4.2.1 Research Philosophy or Paradigm .....	149
4.2.2 Research Type .....	157
4.2.3 Research Approach.....	157
4.2.4 Research Method – Mixed Method. ....	158
4.2.5 Justification for Using Mixed Methods .....	159
4.2.6 Triangulation .....	161
4.2.7 Quantitative .....	162
4.2.8 Qualitative .....	163
4.2.9 Research Strategy .....	164
4.3 Data Collection Techniques.....	167
4.4 Population.....	168
4.5 Sampling Frame.....	169
4.6 Sampling Method .....	169
4.7 Sample Size and Sample Technique.....	170
4.8 Sampling Saturation Point .....	171
4.9 Pilot study.....	173
4.10 Data collection.....	175

4.10.1 Primary Data.....	176
4.10.1.1 Questionnaires .....	176
4.10.1.2 Interview.....	176
4.10.2 Secondary Data.....	176
4.10.3 Timing of Primary Data Collection .....	177
4.11. Method of Data Collection .....	178
4.12. Questionnaires Administration and Retrieval.....	179
4.13 Interviews .....	180
4.14 Data Analytical Technique .....	182
4.15 Reflexivity Research.....	183
4.15.1 Introduction .....	183
4.15.2 Before the Research.....	185
4.15.3 Research Journey:.....	186
4.16 Ethical considerations.....	188
4.17 Chapter Summary.....	190
<b>CHAPTER FIVE.....</b>	<b>192</b>
<b>CASE STUDY: LISTED INSURANCE COMPANIES.....</b>	<b>192</b>
5.0 Introduction .....	192
5.1 History and the geographical location of Nigeria.....	192
5.2 Overview of Insurance Business in Nigeria .....	195
5.3 Historical background of Insurance business in Nigeria .....	195
5.4 Gross Premium Income .....	198
5.5 Nigerian Insurance Market World Ranking .....	199
5.6 The Buyers.....	199
5.7 The Sellers .....	200
5.8 The Intermediaries (Agents).....	200
5.9 Nigerian insurance business regulations and Compliance.....	201
5.10 Regulatory Capitalisation and solvency risks in the insurance business.....	202
5.11 Intellectual Capital (IC) Studies in Nigeria .....	203
5.12 Chapter Summary.....	209
<b>CHAPTER SIX.....</b>	<b>210</b>
<b>DATA ANALYSIS, RESULTS AND FINDINGS .....</b>	<b>210</b>
6.1 Introduction .....	210
6.1.1 Questionnaire Results and Analyses.....	210
6.1.2 Analysis of Questionnaire Data.....	212
6.1.3 Testing of Hypotheses .....	236
6.2 Qualitative Data Analysis.....	259

6.3	Content Analysis of Downloaded Financial Statements and Annual Reports of Listed Insurance Companies .....	279
6.3.1	Quantitative Analysis of Financial Statements and Annual Reports .....	279
6.3.2	Qualitative Analysis (Content Analysis) of Intellectual Capital Information in Financial Statements and Annual Reports between 2015 - 2020 .....	285
6.4	Triangulation of Research Results and Findings .....	299
6.4.1	Analysis of the Data Triangulation Based on the Data Collection Technique .....	299
6.4.2	Analysis of the Data Triangulation Based on Two Selected Listed Insurance Companies in Lagos .....	303
6.5	Discussions of Research Outcome .....	304
6.5.1	Discussion on Research Results .....	304
6.5.2	Correlation Coefficient and Regression Analysis.....	309
6.6	Discussion on Research Findings .....	319
6.6.1	Thematic Analysis of the interview .....	320
6.7	Revisiting the Conceptual Framework .....	326
<b>CHAPTER SEVEN</b>	.....	<b>331</b>
<b>CONCLUSIONS AND RECOMMENDATIONS</b>	.....	<b>331</b>
7.1	Chapter Overview.....	331
7.2	Summary of the Research.....	331
7.3	The Accomplishment of Research Aim and Objectives.....	333
7.3.1	Objective One .....	333
7.3.2	Objective Two .....	334
7.3.3	Objective Three .....	335
7.3.4	Objective Four .....	336
7.3.5	Objective Five.....	337
7.4.	Responding to the Research Questions.....	339
7.4.1	RQ1. What impact would Intellectual Capital recognition have on the value of listed Insurance companies in the Abuja and Lagos Stock Exchanges?.....	339
7.4.1a	Results of Research:.....	339
7.4.1b	Findings: .....	342
7.4.2	RQ2. Are there any facets of Intellectual Capital recognised in financial statements and or annual reports of listed insurance companies in the Abuja and Lagos stock exchanges?.....	343
7.4.2a	Results of research:.....	343
7.4.2b	Findings .....	344
7.4.3	RQ3. What is the role of Intellectual Capital in the value creation of listed Insurance companies in the Abuja and Lagos stock markets? .....	345
7.4.3a	Results: .....	345
7.4.3b	Findings .....	347
7.5	Summary of the Results.....	348

7.6	Summary of the Findings .....	349
7.7	Generalisability of this Research to Other Industries .....	349
7.8	Contributions to Knowledge.....	351
7.8.1	Academic-Based Contribution .....	351
7.8.2	Theoretical contribution .....	352
7.8.3	Practice-Based Contribution.....	353
7.9	Summary of Research Gaps and Contributions.....	353
7.10	Implications for Theory and Practice .....	356
7.11.1	Implications for strategic management.....	357
7.11.2	Managerial implications .....	360
7.11.3	Implications for other users of Accounting Information .....	361
7.12	Conclusion.....	362
7.13	Recommendations .....	364
7.14	Research Limitations and Restrictions .....	366
7.14.1	Research Limitations .....	366
7.14.2	Further Limitations .....	370
7.15	Further research suggestions .....	374
<b>References</b>	.....	<b>376</b>
<b>APPENDICES</b>	.....	<b>418</b>
Appendix 1-	Research Ethical Approval letter.....	418
Appendix 2a	- Copy of Email Response from Mary Adams.....	419
Appendix 2b	- Copy of Email to Mary Adams.....	421
Appendix 3:	Field survey permission request .....	422
Appendix 4:	Field survey Full Questionnaire.....	423
Appendix 5a:	Interview Protocol.....	435
Appendix 5b:	Interview Guide .....	435
Appendix 5c:	Interview Questions .....	436
Appendix 6:	Transcription of the interview data.....	437
Appendix 6a:	Responses from Insurance company D Plc.....	437
Appendix 6b:	Responses from Insurance company M Plc.....	445
Appendix 7 :	Unit Analysis of past Intellectual capital studies.....	449
Appendix 8:	Questionnaire Reliability Statistics.....	458
Appendix 9A:	NAICOM Minimum Paid Up Share Capital Policy.....	470
Appendix 9B:	NAICOM Withdrawal of Tier Based Solvency Capital Policy .....	471
Appendix 10	- List of Insurance companies in Nigeria per NAICOM website.....	472
<b>BIBLIOGRAPHY</b>	.....	<b>479</b>



## **LIST OF TABLES**

Table 2.1 – Intellectual Capital Categories.....	48
Table 2.2 – Components of Intellectual Capital by Categories.....	54
Table 2.3 – Past Trend of Intellectual Capital Recognition.....	59
Table 2.4 – Working Groups, Legislations and Guidelines for Intellectual Capital.....	60
Table 2.5 – Working Groups and Guidelines for Intellectual Capital Recognition.....	62
Table 2.6 – Evaluator loops of Intellectual Capital.....	64
Table 2.7 – An Overview of Accounting Standards for Intangible Assets.....	72
Table 2.8 – Some Intellectual Capital Studies of Other Developing African Countries.....	82
Table 2.9 – Intellectual Capital Classification Framework.....	91
Table 2.10 – Summary of Research Gaps.....	102
Table 3.1 – Applicable Theory and Relevance to Intellectual Capital Recognition.....	126
Table 4. 1 – Major Features of the Two Philosophies.....	148
Table 4.2 – Related Research Paradigms.....	149
Table 4.3 – Differences Between Deductive and Inductive Approaches.....	155
Table 4.4 – Comparing the Research Philosophies of Interpretivism, Positivism and Pragmatism.....	163
Table 4.5 – Sample Size Selection Table showing Population, Sample Frame and Sample Size.....	168
Table 4.6 –Pilot Study’s Reliability Statistics.....	172
Table 4.7 – Questionnaires Administration and Retrieval Analysis.....	178
Table 4.8 – Interview Session Solicitation.....	179

Table 5.1 – Gross Premium Income: Non-Life & Life Businesses: 2015 – 2019.....	196
Table 5.2 – Intellectual Capital (IC) Studies in Nigeria.....	205
Table 6.1 – Respondents’ Demography.....	212
Table 6.2 – Descriptive Statistics on Value-Added Relational Capital (VARE).....	220
Table 6.3 – Descriptive Statistics Value-Added Added Human Capital (VAHU).....	222
Table 6.4 – Descriptive Statistics on Value-Added Structural Capital (VAST).....	223
Table 6.5 – Descriptive Statistics on Value-Added Business Recipe Capital (VABU).....	224
Table 6.6 – Descriptive Statistics on Economic Value Added (EVA).....	226
Table 6.7 – Descriptive Statistics on Market Value Added (MVA).....	227
Table 6.8 – Descriptive Statistics on Future Growth Value (FGV).....	229
Table 6.9 – Descriptive Statistics on Return on Equity (ROE).....	230
Table 6.10 – Descriptive Statistics on Return on Asset (ROA).....	231
Table 6.11 – Descriptive Statistics on Return on Capital Employed (ROCE).....	232
Table 6.12 – Independent sample T-test.....	234
Table 6.13 – Multiple Linear Regression Results of Hypothesis 2.....	235
Table 6.14 – Correlation Matrix -Questionnaires.....	236
Table 6.15 – Correlation Coefficient Results.....	237
Table 6.16 – Schedule of ANOVA Results.....	238
Table 6.17 – Standardised Beta Coefficients.....	238
Table 6.18 – Collinearity Diagnostics Variance Proportions.....	239
Table 6.19 – Matrix of the Correlation Coefficients for Five Variables.....	241
Table 6.20 – Multiple Linear Regression Results of Hypothesis 4 .....	243
Table 6.21 – Matrix of the Correlation Coefficients for five variables -Content analysis...	243
Table 6.22 – Multiple Linear Regression Results of Hypothesis 5 -Questionnaires.....	245
Table 6.23 – Matrix of the Correlation Coefficients for Five Variables -Questionnaires.....	245

Table 6.24 – Result of Correlation Coefficient Capital Market Valuation Perspectives – Questionnaires.....	247
Table 6.25 – ANOVA Analysis.....	248
Table 6.26 – Standardised Beta Coefficients.....	248
Table 6.27 – Collinearity Diagnostics.....	250
Table 6.28 – Descriptive Statistics for all Five Variables for Hypothesis 6 – Questionnaires.....	251
Table 6.29 – Matrix of the correlation coefficients for five variables -Questionnaires.....	252
Table 6.30 – Result of Correlation Coefficient Economic Value.....	253
Table 6.31 – ANOVA Summary for Economic Value Added.....	254
Table 6.32 – Standardised Beta Coefficients for Economic Value Added.....	254
Table 6.33 – Identified Intellectual Capital Themes (Interview).....	258
Table 6.34 – Other Themes Related to the Subject of the Study (Interview).....	265
Table 6.35 – Independent sample T-test on the different locations.....	275
Table 6.36 – Measurement of Intellectual capital reporting.....	276
Table 6.37 – Valuation of shares of selected insurance companies.....	277
Table 6.38 - Summary of sample test.....	278
Table 6.39 - Pearson correlation on the impact of IC reporting on valuation of shares.....	280
Table 6.40 – Schedule of listed insurance companies number of annual reports.....	281
Table 6.41 – Frequency of IC items in Financial statements and annual reports.....	283
Table 6.42 - Content analysis of IC items disclosure by number of companies.....	286
Table 6.43 - Data Triangulation Analysis Based on Data Collection Techniques.....	295
Table 6.44 - Data Triangulation Analysis Based on the 2 Listed Insurance Companies.....	299
Table 6.45 - Revised Conceptual Model Validation.....	323
Table 7.1 - Summary of Research Gaps and contributions.....	348

## LIST OF FIGURES

Figure 1.1 – Outline of the Thesis.....	39
Figure 3.1 – Conceptualisation of Intellectual Capital.....	135
Figure 4.1 – The Research Onion.....	145
Figure 4.2 -- Research Design Flowchart.....	146
Figure 5.1 – Administrative Map of Nigeria .....	191
Figure 6.1 – Bar Chart for Gender.....	215
Figure 6.2 – Bar Chart for Age.....	215
Figure 6.3 – Bar Chart for Highest Qualification.....	216
Figure 6.4 – Bar Chart for Professional Qualification.....	217
Figure 6.5 – Bar Chart for Position in the Insurance Companies.....	218
Figure 6.6 – Bar Chart for Service years.....	219
Figure 6.7 – Bar Chart Staff strength.....	220
Figure 6.8 – Word Cloud.....	257
Figure 6.9 – Intellectual Capital-Coding by item.....	266
Figure 6.10 – Employee training and education – Coding by item.....	267
Figure 6.11 – Intellectual Capital Recognition and Value of Shares – Coding by Item....	268

Figure 6.12 – Intellectual Capital for Value Creation and Profit-making.....	269
Figure 6.13 – Investors’ Perception of Intellectual Capital - Coding by Item.....	270
Figure 6.14 – D Plc and M Plc Common Thoughts on Investors’ Perception.....	271
Figure 6.15 – Intellectual Capital Themes NVivo Classification Model.....	273
Figure 6.16 – Line Graph on Valuation of Shares of Selected Insurance Companies....	275
Figure 6.17 - Summary of most Frequent Intellectual Capital by Items.....	285
Figure 6.18 - Summary of most Frequent Intellectual Capital by Year.....	285
Figure 6.19 – Revised Conceptual Framework.....	324

## LIST OF ABBREVIATIONS

<b>ANOVA</b>	Analysis of Variance
<b>CAC</b>	Corporate Affairs Commission
<b>CAMA</b>	Companies & Allied Matters Act
<b>CIBN</b>	Chartered Institute of Bankers of Nigeria
<b>CITN</b>	Chartered Institute of Taxation of Nigeria
<b>DATI</b>	Danish Agency of Trade and Industry
<b>EVA</b>	Economic Value Added
<b>FGV</b>	Future Growth Value
<b>FASB</b>	Financial Reporting Standards Board
<b>FTSE</b>	Financial Times Stock Exchange
<b>HC</b>	Human capital
<b>GRI</b>	Global Reporting Initiative
<b>HRA</b>	Human Resource Accounting
<b>IAM</b>	Intellectual Asset Monitor
<b>IAS</b>	International Accounting Standards
<b>IC</b>	Intellectual Capital
<b>IAs</b>	Intangible assets
<b>ICAN</b>	Institute of Chartered Accountants of Nigeria
<b>IFRS</b>	International Financial Reporting Standard
<b>INCAS</b>	Intellectual Capital Statement
<b>IAS 38</b>	International Accounting Standard No.38
<b>IASB</b>	International Accounting Standard Board
<b>IPOs</b>	Initial Public offerings
<b>MCM</b>	Market Capitalisation Method

<b>MERITUM</b>	Measuring Intangibles to Understand and Improve Innovation Management
<b>MVA</b>	Market Value Added
<b>NAICOM</b>	National Insurance Commission
<b>NPRM</b>	Net premium
<b>OECD</b>	Organisation for Economic Cooperation and Development
<b>RC</b>	Relational Capital
<b>RICARDIS</b>	Reporting of Intellectual Capital to Augment Research, Development & Innovation in SMEs
<b>ROA</b>	Return on Assets
<b>ROCE</b>	Return on Capital Employed
<b>ROE</b>	Return on Equity
<b>ROI</b>	Return on Investment
<b>SAS</b>	Statement of Accounting Standards
<b>SC</b>	Structural Capital
<b>SEC</b>	Security and Exchange Commission
<b>SPSS</b>	Statistical Package for the Social Science
<b>NVIVO</b>	Software program used for qualitative and mixed methods research
<b>VA</b>	Value Added
<b>VABU</b>	Value Added Business Recipe
<b>VARE</b>	Value Added Relations
<b>VAHU</b>	Value Added Human
<b>VAST</b>	Value Added Structure
<b>VIF</b>	Variance Inflation Factor





# CHAPTER ONE: INTRODUCTION

## 1.1. Background to the Research

Accountancy scholars, practitioners, and financial policymakers broadly agree that knowledge is a vital driver for an organisation's performance and value creation (OECD, 1996; Dancey and Tilley, 2019; Abeysekera, 2021). With the arrival of the globalised knowledge-based economy, intangible resources, such as multi-skilled employees, sophisticated information systems, and well-handled customer and societal relationships, have become important drivers of value creation for organisations (Ordonez de Pablos and Edvinsson, 2020; pg.31). There is no doubt that knowledge exchange and financial reporting and administration could be a forceful energy behind the present day digital economy. Modern organisations are geared towards creating value and wealth to benefit various stakeholders, especially both current and prospective investors. The most prevalent academic conversation addressing the effect of knowledge-based matters on value creation is focused on the perceptions of Intellectual Capital (IC) and knowledge management (KM) (Fait et al. 2021).

Consequently, several theories lay behind various works of literature and perspectives in researching Intellectual Capital, for instance (human capital theory, organisational learning theory, information processing theory, and resource-based theory). Moreover, it suggested Intellectual Capital could create value and enhance organisational performance by lowering costs, increasing customer benefits, or some combination of the two. (Bontis, 1998; Teece, 2014; Basten, 2018; Duchek, 2020). Abhayawansa and Guthrie (2014) reported that IC is a critical source of value for firms and the economy, but on the other hand, firms do not own or control all the knowledge resources. Researchers such as Costa and Tamara, 2013 and Calabrese et al., 2013 argued that there are major challenges to reporting Intellectual Capital in a financial statement because intangible resources represent the most difficult resources to manage, so it became more difficult to recognise the impact of each of the components of Intellectual Capital on SME performance.

According to some past authors, Intellectual Capital refers to the overall intellectual assets that the company owns or possesses (Roos and Roos, 1997; Stewart, 1997; Sullivan, 1998; Wooll, 2022) while knowledge management refers to the processes and practices that enable organisations to manage their intellectual assets and to achieve knowledge-based competitive advantages (Alavi and Leidner, 2001).

The insurance companies listed or quoted on the Nigerian Stock Exchange appear to have little or limited Intellectual Capital information in their financial statements and annual reports to reflect the true valuation or the value of their shares. The terms listed or quoted are used interchangeably to mean the same thing within the stock exchanges and financial markets. All the components of Intellectual Capital have limited recognition and are accounted for in terms of accounting treatments as Intangible Assets (IA) and are not recognised in the financial statements and annual returns. The International Accounting Standard 38 (IAS 38) – Accounting for Intangible Assets defined Intangible Assets and what they are, including the various criteria that should be taken into account in the classification of Intangible Assets of which Intellectual Capital components are part within an organisation (IAS 38 – 2021).

Since the year 1990, Intellectual Capital became prominent in the arena of practising accountants and accounting academia, however, there is still the nonexistence of cohesion of Intellectual Capital definition. Scholars contend that the overall Intellectual Capital of an organisation is made up of three dimensions: human, structural/organisational, and relational/social capital (Bontis, 1998; Edvinsson and Malone, 1997; Stewart, 1997; Nahapiet and Ghoshal, 1998; Quintero-Quintero, 2021). Human capital refers to the company's personnel and their knowledge, competencies, education, skills, and features (Edvinsson and Malone, 1997; Roos and Roos, 1997; Stewart, 1997). Structural/organisational capital refers to the Intellectual Capital that is owned by the company and remains in the company even when employees leave (Roos and Roos, 1997). Relational/social capital

is the value embedded in and derived from relationships with customers, suppliers, partners, institutions, and other comparable stakeholders (Nahapiet and Ghoshal, 1998).

The commercial sector has seen and experienced an upsurge in numerous organisations that consider Intellectual Capital in diverse ways such as information, trademarks, competitive advantage, brands, patents, customer relationships, human capital, research and development, and trademarks (Roslender, 2000, pg.35; Li, 2019; Teixeira, 2019). Intellectual Capital is a term commonly used in many diverse endeavours of academia and the corporate world. The rationale for the non-recognition of some of the intellectual capital components is that intangible assets do not qualify for the recognition and measurement criteria in respect of their classification according to IAS 38 (Accounting for Intangible Assets) guidelines (IASB, 2021 para18 -32).

The Theoretical outline and Framework for Financial Reporting (IASB, 2021) indicated that the justification for the non-recognition of these assets is that there is in existence a level of threat that the information about these assets would be an inadequate illustration of what the data should represent. This is due to the essential challenges in the identification of the transactions and various processes to be measured and or valued and the application of techniques and valuation tools used in the transmission of messages that would be in line with those transactions and/or events. Nevertheless, the framework does allow the use of sufficient and reasonable approximations in the determination of the value to be recognised. In most cases, measurement and demonstration may be achieved via the use of judicious and calculated estimations without undermining the validity and trustworthiness of the information being reported. Nevertheless, when a reasonable estimate is not possible, then the item concerned will not be recognised in the statement of financial position (IASB, 2021: para 31-36). Therefore, a noteworthy proportion of an organisation's assets may not be described and indicated in the financial statements of that entity.

The requirements of the IASB are quite strict if, and only if, an item is to be recognised as an asset in the financial statements. These requirements are needed to ensure the comparability of the financial data of different companies and to preclude the organisation's manipulation of financial information. The market valuation of the listed companies lies in the intangible assets with relatively little value being associated with their tangible assets (Seetharaman, Sooria and Saravanan, 2002: p128; Lim, 2020; Barker, 2020).

The increasing importance of intellectual capital and the growing number of companies that rely on these assets to create value have created a need to inform the market, the investors and the other stakeholders of the existence of intellectual capital (OECD, 2006: p5; Minovski, 2018; Ousama, 2020; Salehi, 2021). The accounting recording and reporting of intellectual capital are paramount if the wider stakeholders, especially the current and prospective investors of a company, are given the chance to make well-informed investment decisions. Therefore, exploring the relevance of Intellectual Capital recognition in the financial statements of listed insurance companies in the cities of Lagos and Abuja in Nigeria would anchor the need for prospective and current investors in the insurance companies to look beyond the financial statements (Anuonye, 2015; Morara,2021).

## **1.2. Defining the Problem**

This research was informed by two key problems: the first is the contemporary efforts in Intellectual Capital recognition in the financial statements of listed insurance companies rather than on the whole listed companies' data in Abuja and Lagos. This is followed by the lack of technology that enables the perception of value creation of listed insurance companies from prospective and present investors from the lenses of qualitative features of data. In addition to these main problems, the lack of relevant proof in Nigeria was an incentive for engaging in this research. This research was also compelled by the craving to explore and examine the relevance of the components of intellectual capital and their influence on the value of listed insurance companies. Lastly, this research can also be explored by the

appropriateness of the core prevailing recognition theories to elucidate perceived Intellectual Capital recognition configurations and paradigms (Collins & Stockton, 2018).

Some earlier researchers in Intellectual Capital recognition were motivated by the belief that the information era occurred in the middle of the 1990s (Kirkpatrick, 2006; Statsenko, 2013; Kruk, 2018; Agudelo, 2019). Consequently, organisations have been presumed to have reported enormous amounts of Intellectual Capital data in financial statements and annual reports so far. For instance, Williams (2001, p195) established a period for a survey of annual reports between 1995 and 1999 suggesting that companies were more likely to recognise and disclose Intellectual Capital information than in earlier years due to the significant growing recognition of Intellectual Capital. Ousama et al. (2012) and Azevedo et al., (2019) also found that more Intellectual Capital information was recognised and disclosed after the year 1999 due to the increasing incentives from the Nigerian government to encourage investment in intangible assets.

### **1.3. Motivation and Significance of the Research**

#### **1.3.1. Motivation**

Research into the relevance and recognition of Intellectual Capital in listed insurance companies in Abuja and Lagos is reasonable due to the significant role the insurance business plays in augmenting Nigeria's economic development and the prominence of Intellectual Capital as a component for value creation and enhancement (Sheikholeslami, Hamidi Zadeh & Amiri, 2015). The vital part played by insurance companies, both listed and unlisted, in Nigeria is crucial, predominantly in the plans of the government. Another rationalisation for this study is the need to bridge the lacuna that presently exists in Intellectual capital literature, as limited or no known exploration has been carried out on listed insurance companies in the cities of Abuja and Lagos. The works of Kurfi et al. (2017), Kori (2017), Anuonye (2015), Yahaya (2006)' Okpala and Chidi (2010)' Uadiale & Uwuigbe (2011)' and Onafalajo, Eke & Akinlabi (2011) on intellectual capital in different areas of studies in Nigeria are hereby recognised and acknowledged.

Some of these studies were not specifically based on the study of Intellectual Capital on listed insurance companies in Abuja and Lagos. This present research consequently is not whether or not intellectual capital exists in the listed companies in Abuja and Lagos stock exchanges or any part of Nigeria, but rather on whether it is recognised and reported in the books of the listed insurance companies and perceived in value by their present and future investors. As a result, this research, in conjunction with prior literature, will contribute to the body of information and knowledge by exploring the relevance of intellectual capital recognition in the financial statements (including annual reports) of listed insurance companies in Abuja and Lagos stock exchanges (Osinubi, 2015, p.36; Temile, 2018, p.97)

### **1.3.2. Significance of the Research**

This research is important to a range of preparers of financial statements, financial analysts and investors, users of business and accounting information including future researchers. According to Aswati & Anshori (2007), “financial performance is of primary importance to both investors and users of accounting information, as this affords them the opportunity for proper evaluation of the progress of the business entity in question.” The researcher believes that the financial statements of listed companies, especially insurance companies with a huge amount of service providers do not record or reflect this in the company books and valuation. The financial value creation expectation, which is one of the focuses of this research, can be satisfied through the application of intellectual capital valuation. Those who may need such information include investors, employees, management, government, and other national and international bodies.

Investors’ expectations from business ventures are to maximise their earnings because any business should be seen as creating value for stakeholders (Jones & Wicks, 1999; Kehelwalatenna & Premaratne, 2013). At all times, the investor evaluates the relevance of their stake through earnings which may be embedded in such financial outcomes as Return on Capital Employed, (ROCE), Return

on Assets, (ROA), Return on Equity, (ROE), Market Value Added (MVA). The reason for undertaking this research is to satisfy the curiosity of the researcher nurtured during many years of accountancy practice experience.

#### **1.4. Scope of Research**

The scope of this research shall be limited to the review and analysis of the relevance of intellectual capital recognition in the financial statements of listed insurance companies for the period 1st January 2015 to 31 December 2020 in developing countries, using Nigeria as a case study. The recognition, which is categorised into financial and non-financial parts, is the ability of an insurance company to gain and enhance its value and wealth creation capability using the resources at its disposal to enable it to gain and harness competitive advantage (Hansen & Mowen, 2005). Generally, performance can be evaluated under three dimensions namely; productivity, profitability and market premium (Walker, 2001). However, the scope of this study about performance shall be limited to financial performance using the profitability indices of EVA, FGV, MVA, ROE, ROA and ROCE obtained from the published annual reports of the listed insurance companies in Abuja and Lagos. The field survey was conducted using questionnaires and interviews with listed insurance companies in Abuja and Lagos.

#### **1.5 Aim and Objectives of the Research**

##### **1.5.1 Aim**

This research aims to explore Intellectual Capital recognition and the impact of the financial statements and annual reports on the value of the listed insurance companies within the context of Nigerian financial markets using the six years between 31 December 2015 to 31 December 2020.

## **1.5.2 Objectives of the Research**

The following are the objectives that are required to accomplish the aim of this research:

1. To review existing literature on Intellectual Capital reporting and recognition in developing countries and identify gaps.
2. To critically analyse the practice of Intellectual Capital reporting in developing countries like Nigeria and its impact on the valuation of shares of insurance companies in the financial markets of Abuja and Lagos using a case study.
3. To analyse and provide a synthesis of the data collected, results and findings using mixed-method - quantitative and qualitative research methods.
4. To develop a conceptual framework for the relevant Intellectual Capital recognition in the financial statements of listed Insurance companies.
5. To provide recommendations to identify the true value of Intellectual Capital impact on the value of shares of listed insurance companies in the Nigerian financial markets.

## **1.6 Research Questions**

From the above specific objectives, the following research questions have been formulated to guide the execution of the research.

1. How has intellectual capital recognition impacted the value of listed Insurance companies in developing countries, with emphasis on Abuja and Lagos in Nigeria?
2. Are there any facets of Intellectual Capital recognised in financial statements and/or annual reports of listed insurance companies on the Abuja and Lagos stock exchanges?
3. What is the role of Intellectual Capital in the value creation of listed Insurance companies in the Abuja and Lagos stock markets?



## 1.9. Definitions of terminology and concepts

Various debates and discussions of the description of a company's Intellectual Capital took place in the year 2000s, in the second phase of the development of the concept (Dumay and Garanina, 2013). According to some of the forerunners of this subject, Edvinsson and Sullivan (1996) defined Intellectual Capital as "the knowledge contained within a company, which can subsequently be turned into value". In a study by Lönnqvist and Mettänen (2002), "Intellectual Capital is defined as a resource for creating a company's value, based on the knowledge and skills of employees, organisational resources, business processes, and shareholder relations". According to Lev (2001), "intellectual capital is an intangible source of value (promise of future gain), borne by innovations (inventions, discoveries), unique organisational projects, or HR management practice."

**Annual accounts and reports:** Financial activities of the insurance companies include the balance sheet, profit and loss accounts, cash flow statements, and notes to the accounts. (Murphy, 2022; PwC. 2022)

**Recognition:** This is the acknowledgement of the existence, validity, perception, and or legality of something or the action of making new or secret information known. Disclosure by companies or organisations is the act of making their customers, investors and anyone involved in conducting business with the company aware of pertinent information. This is made up of the business and financial activities of Insurance companies as they relate to intellectual capital components and value creation.

**Financial performance:** Financial attainment in monetary terms in the operations of the insurance business in Nigeria (Falade & Oyedokun, 2022).

**Financial reports:** Published financial activities of insurance companies which include the balance sheet, profit and loss accounts, and notes to the accounts. (Mwangi & Murigu, 2015)

**Human resource accounting:** Measurement and reporting of intellectual capital in the financial statements of companies (Minovski, 2018).

**Intellectual Capital:** The aggregate of employees' output in an organisation (Ahmadi, 2016).

**Measurement:** Valuation and classification of intellectual capital in the insurance sector (Jardon, 2021).

**VAIC:** Value Added Intellectual Coefficient. This is the aggregation of intellectual capital using human, structural and relational capital components (Ståhle et al., 2011).

**Profitability:** The positive difference between an insurance company's earnings and its expenditure (Doroft and Jakubik, 2011).

**Shareholders' fund:** Total of fixed and current assets less current liabilities. It is also known as Net Assets (Fernando, 2022).

**Tangible Assets:** Assets that are used for the production of goods and services, are relatively permanent and can be felt physically. Their usefulness usually lasts beyond one accounting year for example motor vehicles, land, and buildings (Kenton, 2022).

**Intangible Assets:** These are assets that do not have any physical elements in themselves such as intellectual capital and other similar items (Kenton, 2022).

**Human Capital:** This is the totality of all remunerations and rewards paid to the employees. It also includes training and development costs (Lo Iacono, 2023).

**Structural Capital:** Structural capital is made up of all infrastructures such as trademarks, patents, copyrights, franchises and licenses, attributes, formulas, and so on, that remain in the organisation even when the worker leaves the workplace (Martín-de-Castro et al., 2011).

**Relational Capital:** This is the predisposition customers and other stakeholders hold about the goods and services of an entity. It is the preference and allegiance that customers have over a company's brand over other products and services from other organisations. This includes trade relationships

with past, present and potential customers, suppliers and the public at large (Anuonye, 2016; Hueffner, 2021; Twin, 2022; Hayes; 2022).

### **1.9. Summary of Research Methodology**

Quantitative research uses the deductive approach whilst the inductive approach is used for a qualitative method of research. This research utilised a combination of the aforementioned methods which is the mixed methods. (Kansteiner,2020; O'Reilly, 2021)

First, it will recognise the exact data, second; it will go towards the generalised findings of the results.

The mixture of questionnaire surveys and interviews was used for this research. A series of relevant questions were asked and the recorded responses were used for analysis. Content analysis of 6 years (2015 to 2020) of annual reports of the listed insurance companies will be used. (Jamshed, 2014; Dejonckheere, 2019; Busetto, 2020). The sample size of listed insurance companies based in the cities of Abuja and Lagos in Nigeria will be researched by way of their respective content analysis of the financial statements and annual reports for the years 2015 to 2020. These records are in the public domain in Nigeria and on companies' websites. There are no limits as to the types of insurance products sold by the listed insurance companies.

To make the results and findings of the report more definite, a mixture of different methods including secondary data, interviews and questionnaires were used. Selection of the target population for the survey questionnaire will help achieve accuracy. (McCombes, 2022)

Also, email and other internet communication forms are recommended for the process as they are cost-effective and have almost no possibility of bias. This will help the respondents in answering sensitive questions with ease.

In the sample population, the researcher will review the annual financial reports of the listed insurance companies on the Lagos and Abuja Stock Exchanges. The historical records of the Securities and Exchange Commission (SEC), the regulatory body of the Nigerian Stock Exchanges, were reviewed

to corroborate information collected regarding the chosen listed insurance companies for the years 2015 to 2020. The listed insurance companies chosen will be based on the following criteria:

1. Listed insurance companies' annual reports and financial statements published.
2. The insurance companies must have been listed on the Lagos and Abuja Stock Exchanges for six years minimum.
3. The company's shares are being traded or must have been traded on the stock exchange for the six years under study.
4. The published financial statements and annual reports are expected to contain Intellectual Capital information in one form or another.
5. The financial statements must have been audited and signed by authorised auditors.

A mixture of quantitative and qualitative methods, adopting empirical evidence of data collection were used. Direct interviews and structured questionnaires were administered.

The data gathered were separated into qualitative and quantitative methods. While quantitative data works best for hypothesis testing and gives quantifiable and easy-to-understand results, Qualitative data enables flexibility and subjectivity. A mixture of brief data and generalisation from the sample collated will achieve a good analysis.

Intellectual capital recognition was considered in the following categories; Relational Capital, Human Capital, and Structural Capital. Content analysis is a research technique for making valid inferences from the data required context. As a research technique, it involves specialised procedures for collecting and processing the data to yield valid inferences. For collecting the data, a list of keywords will be prepared and these keywords searched in the annual reports of the insurance companies. The number of times a keyword appears in the annual report will be noted. Similarly, the data will be collected for all the keywords. The collected data will be further analysed to draw valid inferences. (Kleinheksel,2020; Luo, 2022)

## **1.9. Synopsis of the Research**

This research consists of seven chapters. Chapter One provides an overview of the study, which begins with the motivation for researching Intellectual Capital information recognition in terms of the explanation of the present state of Intellectual Capital recognition and reporting. It then progressed to identify the research problems and questions as well as the research aim and objectives. The research design summary, motivation, and significance of the research, and its scope including definitions and taxonomies are also presented in this chapter.

The relevant works of literature were reviewed in Chapter Two. This explains the historical background together with a discussion of relevant Intellectual Capital recognition research and relevant theories. Chapter Two continues with a review of past literature and studies on Intellectual Capital including definitions and principles to identify gaps and formulate the relevant hypothesis. The last section of Chapter Two leads to the location of this research in the arena of Intellectual Capital recognition projects.

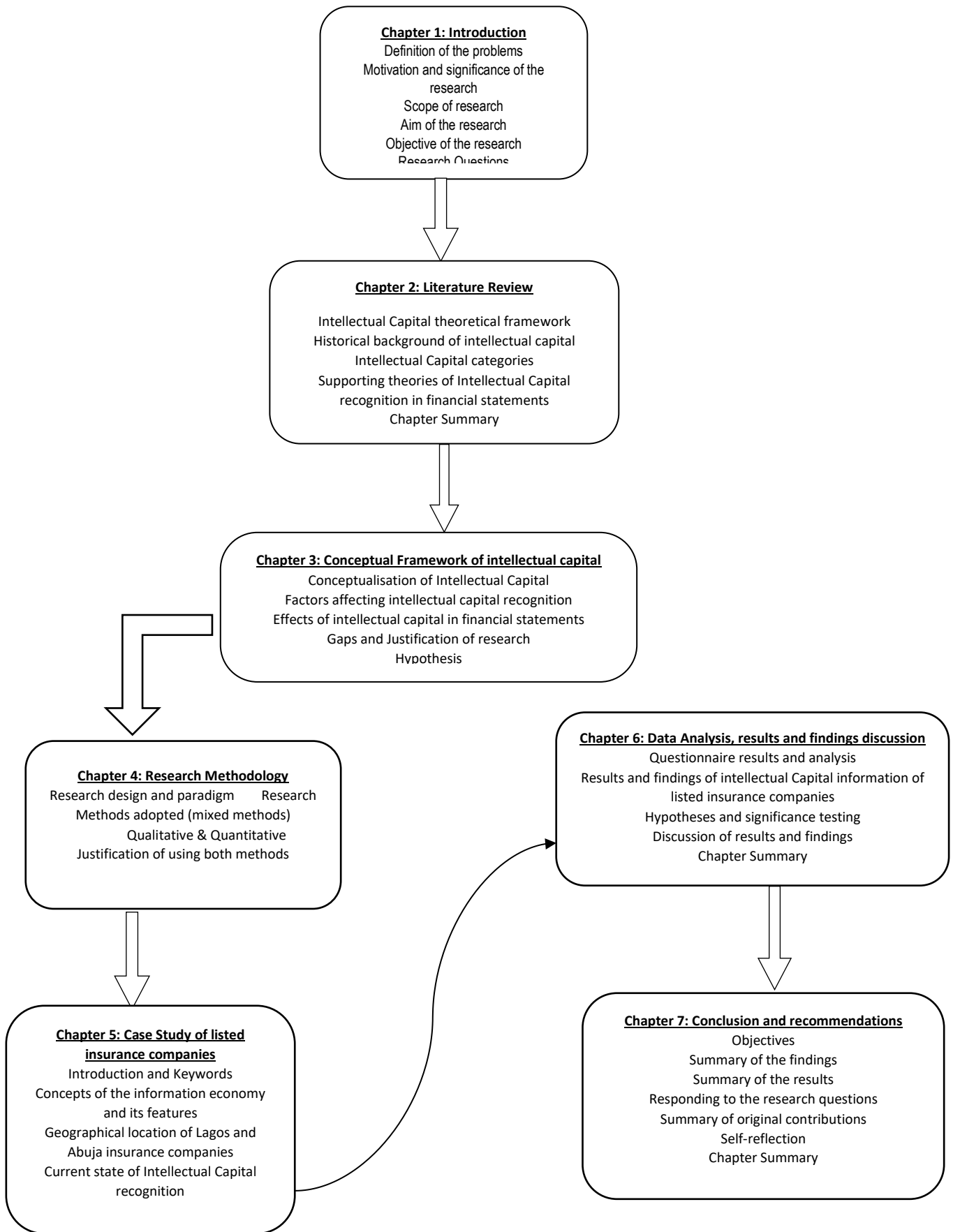
Chapter Three deals with the proposed conceptual framework of this research. This chapter proposes the research idea in a graphical outline and sets the scene for the research process and testing. The Intellectual capital components and performance indices were conceptualised to dictate the research process. The justification of the conceptual framework is dealt with in this chapter including the summary of the hypothesis.

Chapter Four focuses on the research methodology and procedures adopted in the research. Challenges and problems of this method are identified and available solutions are looked at together with the reflexivity for this research.

Chapter Five presents the case study of listed insurance companies. In this chapter, the history of the insurance business in Nigeria including regulations is explained and discussed beginning with a short history of the country Nigeria.

Chapter Six contains the data analysis, results and findings, and discussion of the research including various discussions and commentaries on the data collected. This chapter presents the data collected and analysed in terms of the various methods, questionnaires, interviews and content documentation. Chapter Six also includes various hypothesis testing and inferences.

Chapter Seven contains the conclusion and recommendations. It provides a summary listing of the key findings and results as offered and remarked thereon. The contributions, conclusions, and limitations of this research are presented in this last chapter. Figure 1 below depicts the outline of the research.



**Figure1.1 Outline of the Research**

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

This chapter offers a review of the several materials that already exist about this research focus including the literature on the relevance of Intellectual Capital recognition, beginning with definitions of Intellectual capital, a discussion of the theories, concepts, and categories of Intellectual capital leading into the provision of the preamble to its recognition. Explanations of Intellectual capital recognition and the historical background of this research were discussed. A plan of the basis for recognising Intellectual Capital is followed by an examination of the literature on Intellectual Capital recognition itself before identifying the past studies of intellectual capital recognitions that have used content analysis and other methods. The limits of earlier studies are drafted then followed by the chapter summary. Supporting theories of Intellectual capital recognition in financial statements are looked into, together with practices of Intellectual Capital working groups' guidelines. The chapter includes resource accounting as it connects with Intellectual capital. Key indicators of intellectual capital, appraisals and gaps are mentioned in this chapter, followed by the chapter summary.

### **2.2 Intellectual Capital: Definition and Concepts**

Numerous definitions of Intellectual Capital were offered in previous research and the methods by which Intellectual Capital categories were identified and their determination has been the subject of some divergence (Choong, 2008, p616 – 617; Melhami, 2014; Abeysekera, 2021). This problem is mainly due to there being as many classifications as there are authors on the topic (Marr and Adams, 2004; Choong, 2008; Morara, 2021). Consequently, the subsequent section shortly analyses current definitions and groupings of Intellectual Capital to provide a practicable acceptance of the impression of it.



The definition of Intellectual Capital can be divided into five main themes. Firstly, it is defined according to its membership or sub-group containing the entirety of Intellectual capital (Brooking, 1997; Sveiby, 1997; Gu and Lev, 2001; Edvinsson, 2002; Fadur, 2013; Li, 2019). In this regard, the job of constructing a definition of Intellectual Capital has always been linked with classifying it (Huang et al., 2007). For example, Brooking (1997, p.13) defined Intellectual Capital as comprised of market assets, human focussed assets, intellectual property assets and structural assets. This definition was adopted in this research because of its independence and workability in Intellectual Capital data classification, which facilitated the recording process.

Secondly, Intellectual Capital is defined as ‘hidden value’, that is, the surplus of the market value of the company over its book value of equity in the balance sheet ( Brennan, 2001; de Pablos, 2005; Whiting and Miller, 2008; Bryl, 2017; Evgenidis, 2021; Obayes, 2022). The two values are dissimilar and contested, which is the result of Intellectual Capital being unaccounted for in the balance sheet. This definition is less emphasised in this research for two motives. Firstly, the difference between the two values would only be able to represent Intellectual Capital in total, but not the Intellectual Capital by groupings/sub-classification (Brennan, 2001; Oliveras et al., 2008; Evans,2015; McGuirk, 2015) which was important for the content analysis adopted. Secondly, the market value of a company is not constantly a realistic figure due to speculative activities and other market imperfections (Dzinkowski, 2000; Brennan, 2001; Kooistra and Zijlstra, 2001; Chen,2021; Downey, 2022). Furthermore, it is claimed that only a few overappraisals of companies can be explained by the existence of Intellectual Capital, but may be partly elucidated by exterior features such as the economic series in which the company functions (Valladares Soler and Cuello de Oro Celestino, 2007; Manama, 2016).

Thirdly, Intellectual capital can be defined according to its qualitative features. This kind of definition is mostly recommended by the professional accountancy community. The Financial Accounting Standards Board FASB (2001), for example, defined intangible assets as non-current, non-financial claims to future benefits in the absence of physical or financial terms (Kenton, 2022). Meanwhile,

under International Accounting Standard (IAS) 38 Intangible Asset, the International Accounting Standard Board IASB (2021) defined intangible assets as non-monetary assets without physical substance held for use in the production or supply of goods or services, for rental to others or administrative purposes. Definitions by non-academic communities such as these are often not widely employed by academics due to their narrowness. For example, knowledge structure assets such as computers, laboratories and training centres, may not be deemed Intellectual capital assets from the standard of accounting due to their physical existence. However, it is usually thought that Intellectual Capital also includes physical assets as long as they are Intellectual based structures capable of generating knowledge for the company.

Fourthly, Intellectual Capital is defined from a legal standpoint as intellectual property which includes patents, trademarks and copyright (Caroll and Tansey, 2000; Dzinkowski, 2000; Evgenidis, 2021). This type of definition is not adopted in this research, as it is very restrictive. Alternatively, Intellectual Capital encompasses abstract forms of intangible assets such as competencies, culture, philosophy, and spirituality.

Fifthly, Intellectual Capital was defined according to its function (Hall, 1992; Stewart, 1997; Bukh, 2005). Hall (1992; p.136), for instance, stated Intellectual Capital is a value driver that converts productive resources into value-added assets. Also, Stewart (1997, p.13) defined Intellectual capital as knowledge, information, intellectual property, and experience that can be put to use to generate wealth.

The researcher opines that Intellectual capital is the hidden value resulting from the unreported and uncounted intangible assets not recognised in the financial statements of a company. According to Evgenidis (2021 p.24), “Intellectual capital is the sum of hidden assets, which are not fully disclosed in the financial statements” The exploration of the relevance of intellectual capital’s recognition in the financial books of listed insurance companies in Abuja and Lagos that is the focus of this research. According to existing literature, Intellectual capital may be considered a significant “hidden value”

that is not captured in the financial statements, the value of which may be gauged in the difference between firm market value and book value (Fort et al., 2017, p.711).

### **2.2.1 Historical Background of Intellectual Capital**

The literature review for this research established the extent of the disagreements over the definition of Intellectual Capital and its constituents, at the same time noting some mutual themes (Petty and Guthrie, 2000; Kaufman and Schneider, 2004; Bollen et al., 2005; Schneider and Samkin, 2008; Choong, 2008). According to Elkington (2021, p.7) “Intellectual capital is the sum of everything everybody in a company knows and has created and is capable of creating that gives it a competitive edge. It is the intellectual asset base typically not listed on a company’s balance sheet.”

The enormous emphasis on Intellectual Capital appears to be more connected with the emergence of intangible assets as key value drivers within service and knowledge-based corporations, which are in turn reflections of major macroeconomic shifts in most economies. Edvinsson and Malone (1997, p3) stated that “the worth of a company lies not in bricks and mortar, or even in inventories, but in another, intangible kind of asset: Intellectual Capital which is hidden behind the company’s book values”. This statement further echoes the reason behind this research.

Most organisations have numerous motivations to supply more information to be recognised and disclosed as prior works of literature identified some details that are favourable to the capital market. Recognition and disclosure of financial information would alleviate the adverse challenges of choices and increase market liquidity by the provision of relevant value information to the ignorant and layman investors. Broadly, Intellectual capital recognition forms a good size of information to be reported that would put any company in an appropriate standpoint in favour of investors and other prospective stakeholders.

Intellectual Capital is the aggregate of human efforts which can be measured and through which organisations can gain a competitive advantage. Human resource accounting has been identified as the process of recording this form of asset in the books of a company. The insurance sector provides a unique case study where reliable recognition and measurement of human resource assets may be possible.

The terminologies ‘Intellectual Capital’, ‘Intangible Assets’, ‘Intellectual Property’ and ‘Information Assets’ have sometimes been used interchangeably across studies (Dzinkowski, 2000; Kaufmann and Schneider, 2004; Beattie and Thomson, 2007; Elkington, 2021; Evgenidis, 2021) even though these studies are supposed to mention similar assets. Other scholars used the term ‘intangible assets’ rather than ‘Intellectual capital’, even though these studies examined Intellectual Capital recognition. “Reporting and disclosure of intangibles have been a feature of the intellectual capital landscape since its inception” (Guthrie et al., 2018, pg. 405). In this research, the terms Intellectual capital and intangible assets are used interchangeably, depending on quotations e.g. Meca and Martinez (2005); Oliveira et al. (2006) and Cordazzo (2007) and Guthrie et al., (2018).

However, the perception of Intellectual Capital is yet unfamiliar to several investors and users of financial reports because it is difficult to measure in explicit terms (Lytras & Pablos, 2009; Ystrom, 2019; Michelon, 2020). There is also no agreement on a common definition of Intellectual Capital (Beattie & Thomson, 2007; Meca & Martinez, 2007; Kim et al., 2010; Minovski, 2018; Miller, 2021).

### **2.2.2 Intellectual Capital Value-Added Categories**

Intellectual capital has different categories of terminology used by various authors as indicated in Table 2.1. The same category has been captioned differently by different authors. For example, the terminology, structural capital and organisational capital are used interchangeably. Equally, relational capital and social capital. Value Added Intellectual Coefficient (VAIC) was established by Pulic

(2004) and constructed to deliver information on the value of creation proficiency of Intangible Assets (tangible assets) and intangible assets (intangible assets) owned by the company. This model starts with the company's ability to create value added (VA). VA is the most objective indicator to assess the success of the business and demonstrate the company's capability of value creation (Pulic, 2004). VA is calculated as the difference between output and input (Pulic,1999). The main components of VAIC developed by Pulic can be seen from the company's resources, namely physical capital (VACA-Value Added Capital Employed), human capital (VAHU-Value Added Human Capital), and structural capital (STVA-Structural Capital Value Added). VACA is the ratio between the value added (VA) with a physical model that works (CA). While VAHU indicates how much Value Added (VA) can be generated by the funds expended for the employee workforce (Tan et. al., 2007). Structural Capital Value Added (STVA) shows the contribution of structural capital needed to produce one unit of value-added enterprises (Firmansari et al.; 2019).

According to Adams and Oleksak (2010), “If the intangible side of the business is a black box, what is inside?” For this, the authors found the basic structure put forth by academics in the field of intellectual capital to be very useful. This view identifies four basic “homes” for knowledge in an organisation”:

- Human capital is a source of knowledge and the catalyst for the creation of new knowledge. Certain kinds of knowledge, experience, and competencies are (and will always be) inside employees’ heads.
- Relationship capital is a source of new knowledge as well as a means of monetising knowledge. Certain kinds of shared knowledge are (and will always be) inside shared resources and relationships. Brands are a subcategory of relationship capital.
- Structural capital is the knowledge that becomes captured and leveraged into reusable forms that fuel growth and innovation. These include processes (many enabled by information

technology), databases, training materials and intellectual property. This operationalised knowledge is highly scalable.

- Business recipe (Strategic capital) is the way that an organisation combines these three types of knowledge assets with its physical and financial assets and connects them all with a market need.

Researchers espoused diverse and occasionally contrary interpretations of the categories and components of Intellectual capital (Martin-de Castro, 2014; Dameri, 2021; Marzo, 2022). There is no collectively approved classification of Intellectual capital categories and components. (IFAC, 1998; Calhan et al., 2020).

The guidelines of the European Union's (EU's) Meritum Project (2002) divide Intellectual Capital into three categories: human capital, structural capital, and relational capital. Human capital is defined as the knowledge and skills that employees take with them when they leave the company. Structural capital is seen as the knowledge which remains within the company when employees leave, and includes organisational routines, procedures, cultures, databases, and so on. Finally, relational capital comprises all external relationships such as formal business collaborations and all other informal links to external entities such as customers, suppliers, banks, and non-profit organisations (Leitner, 2004; Elkington, 2021).

Literature on Intellectual Capital has occasionally adopted identical terminologies for Intellectual Capital groupings. For example, the terminologies 'internal capital', 'structural capital', 'process capital' and 'administrative capital' have sometimes been used interchangeably to replicate the Intellectual Capital interior of companies. Equally, terms such as 'human', 'employee competence', 'people', and 'human resources' were used to mean human capital. Meanwhile, 'external capital', 'relational capital', 'customer capital', or 'external structural capital', are diverse terminologies that

were used in expressing the company's associations with external parties (Beattie and Thomson, 2007; Lin, 2013).

Moreover, Several Intellectual capital components have been proposed. Some authors proposed that the number of main categories of Intellectual Capital suggested a range between two and seven. (Choong, 2008; Kim, 2011; Daou, 2013; Marzo, 2022). There was consensus among Bontis (1998), Stewart (1997) and Sveiby (1997) who all separated Intellectual Capital into three main categories; structural capital; human capital and relational capital. Brooking (1996) divided Intellectual Capital into four categories of assets relating to market, human-centred, intellectual property and infrastructure. Adam (2010) divided Intellectual capital into four categories; human capital, structural capital, relational capital and a business recipe or Strategic). Edvinsson and Malone (1997) categorised Intellectual Capital into two main headings of human and structural capital. Seven categories of Intellectual Capital were proposed by the American Financial Accounting Standard Board (FASB, 2001) and the German-based working group, the Schmalenbach Society. The FASB's Intellectual Capital categories comprised technology, customers, markets, workforces, contracts, organisations and statutory. Meanwhile, the Schmalenbach Society (2002 p.602) categorised Intellectual Capital into customers, suppliers, humans, investors, processes, locations and innovations.

Nonetheless the inequalities, a large proportion of studies seeking to categorise Intellectual Capital proposed the three categories of human, relational and structural capital ( Beattie and Thomson, 2007; Choong 2008; Anuonye, 2015; Fort et al., 2017). An additional category "Business recipe" was included by Adam and Oleksak, (2010). Table 2.1 specifies the key studies of Intellectual Capital theoretical outlines that adopted the three main categories originally developed by pioneers in the field of Intellectual Capital in the late 1990s. It is noted, however, that the actual terms to describe the three categories do vary. These categories have had a strong influence on later studies and have

been adopted in some studies of Intellectual capital recognition. Therefore, in addition to the fourth category of Business recipe, these three categories have been adopted in this research to demonstrate comparability between studies. The researcher opined that some studies as shown above have classified intellectual capital components (Table 2.2) as intellectual capital categories (Table 2.1). There are limited studies of Intellectual Capital within companies that have adopted Business recipes or Strategic capital in the insurance industry in Nigeria, especially in Abuja and Lagos. This is one of the gaps this research seeks to fill.

<b>Authors</b>	<b>Intellectual Capital Categories</b>
Hussinki et al. (2017); Sharma and Dharni (2017); Abhayawansa and Guthrie (2014); Bellora and Guenther (2013); Kianto, et al. (2013); Bontis (1998); Edvinsson & Malone (1997); Stewart, (1997); Edvinsson & Sullivan, (1996)	Human capital, structural capital, relational capital
Berezinets et al., (2016);	Human capital, Social capital
Turner et al., (2014); Tsui et al., (2014); Yildiz et al.,(2014)	Human capital, social capital, organisational capital
Chen et al., (2013)	Human capital, structural capital, financial capital
Calabrese et al., (2013)	Human capital, structural capital
Isaac et al., (2010)	Human capital, organisational capital, relational capital

**Table 2.1 – Intellectual capital categories**



Table 2.2 indicates the various components of Intellectual capital categories as would be viewed from the lenses of their relevance to the value creation in the financial statements of listed insurance companies in Abuja and Lagos. Below is the review of each of the categories of Intellectual capital as researched by other authors. The perceived value added by these components of Intellectual capital is what this research is testing. This is the reason to classify each of the categories as “Value added” Intellectual capital. These are values contributed by each of the components of each of the Intellectual capital categories.

#### **2.2.2.1 Value added Human Capital**

“Human capital is the core of the intellectual capital itself” (Arifa and Ahmar, 2016 p.45). Human capital is the quality of a company’s human resources in the form of knowledge, skills, experience, commitment, good working relationships inside and outside the company, and so on (Ifada and Hapsari (2012). The hidden value of the components of Human capital is termed value-added human capital.

Ardana et al., (2012, p.135) stated that a good employee should maintain loyalty to the company, working relationships among employees, and good behaviour. Human capital is related to knowledge and skills existing in the minds of every employee. If the company is not able to take advantage of the employee’s skills, their expertise will be wasted and cannot generate value creation for the company. Moreover, human capital is also the core of creativity in the development of the company (Arifa and Ahmar, 2016 p.48). The researcher thinks that employee loyalty to his or her employer is subjective and is also motivated by rewards and incentives from the company.

Human Capital was defined by Edvinsson and Malone as the combined knowledge, skill, innovativeness, and ability of the company’s employees to meet the task at hand. It also includes the

company's values, culture and philosophy. Human capital cannot be owned by the company (Edvinsson & Malone 1997 p.11).

Abeyssekera (2007) contended that human capital should comprise development and training, entrepreneurial expertise, employee skills, employee security, employee relation and employee welfare. Bontis (2003) categorised human capital into eight qualitative factors involving employees' expertise, know-how, information, production, talent, worth, expert networks and skilful teams. All of the indicators quoted above were used in this research to capture data on human capital.

Consequently, Intellectual Capital is the experience, administrative technology, customer relationship management and specialised skills that make a company more competitive in the market (Edvinsson, 1999). These are translated into employee costs in the form of salaries, wages, training, trademarks, patents, customers' loyalty and so on. For example, the inclusion of intellectual capital contributions in the financial reports of early organisations such as R.G. Barry Corporation (Brummet, Flamholtz & Pyle, 1968) and Skandia Insurance Corporation (Edvinsson & Malone, 1997) helped to pioneer and increase awareness in the concept of intellectual capital reporting. The Organization for Economic Cooperation and Development (OECD) report (OECD, 2011) suggests an array of skills required for innovation, including basic and digital literacy, and academic and technical skills; however, education and technical skills remain an essential prerequisite to innovation.

#### **2.2.2.2 Value-Added Structural Capital**

Structural capital was defined, as knowledge assets that remain in the company when employees go home at the end of the working day (Roos et al., 1997; Meritum, 2002; de Pablos, 2002; Yunus et al., 2016; Kenton, 2023), non-human storehouses (Bontis et al., 2000; Hejazi et al., 2016), the instruments and structures that support employees (Edvinsson and Malone, 1997; Bollen et al., 2005; Alipour, 2011; Dahie, 2021), the processes and procedures (Carson et al., 2004), and culture, processes and information systems (Moon and Kym, 2006).

According to Evegenidis, (2021 p.26) “This category is linked to anything that strengthens the human outcome. It is the glue and skeleton of organisms since it provides the company with the means to maintain and disseminate knowledge. It encompasses all non-human reserves of coded knowledge, including an organisation’s corporate culture, strategies, structures, innovation, routines and processes”. The components of structural capital, therefore, include databases, organisational charts, processes, manuals, strategies and routines (Bontis et al., 2000; Meritum, 2002; Garcia-Alvarez, 2011; Gogana, 2015) information systems and technologies, company images, organisational concepts and documentation (Edvinsson and Malone, 1997; Zemmouchi-Ghomari, 2021; Pharm et al., 2022) and also the intellectual property, management philosophy, corporate cultures, infrastructure, technology, IT and process (Guthrie and Petty, 2000). Bontis et al., (2000, p.88) described the importance of structural capital as follows: ‘Companies with durable structural capital will have a helpful ethos that permits individuals to try innovative things, to learn and to fail. Structural capital is the critical link that allows Intellectual Capital to be measured at the administrative level of analysis.

Edvinsson & Malone (1997 p.11) explicated that structural capital is the hardware, software, databases, organisational structure, patents, trades marks and everything else concerning organisational capability that supports those employee productivities – in a word, everything left at the office when the employees go home.

According to Adams (2010, p.3), Structural capital is the knowledge that becomes captured and leveraged into reusable forms that fuel growth and innovation. These include processes (many enabled by information technology), databases, training materials and intellectual property. This operationalised knowledge is highly scalable.

### **2.2.2.3 Value Added Relational capital**

Relational capital is the information and shared trust that lies in the connection between an organisation and its external parties. “It is the knowledge surrounded in relationships with customers,

suppliers, industry associations or any other stakeholder that influence the organisation's life" Uadiale and Uwuigbe, (2011, pg.49) This knowledge and trust is shared and configured in reinforcing alliances, which lead to competitiveness and value creation for both parties. Malmelin (2007, p.306) suggested that external recognition from customers, investors and other stakeholders is capable of persuading business success and creating a competitive advantage. Therefore, the building of relationships with these parties is thought to be noteworthy in adding long-term value for shareholders (Edvinsson and Malone, 1997; Phillips, 2006). Relational capital reflects the formation of relations with the environment (Evgenidis, 2021 p.26). The researcher opined that the above statements by various authors are not in alignment with the global accounting standards IAS 38 and FRS 10. Therefore, the standard itself has some inadequacies which should be addressed in the future. There were processes to measure the value created by relationships with external stakeholders, for example, market perceptions and competitiveness.

Bontis (1998), Meritum (2002) and Roos et al. (1997; Lenart-Gansinieć, 2016; Zhang,2018) defined relational capital as knowledge resources embedded in the relationships with external parties. Sveiby (2001) defined relational capital as encompassing relationships with customers and suppliers, and the reputation of the company. It is interesting to note that much of the early literature on Intellectual capital confined the definition of relational capital only to direct business-related parties such as customers (see Kaplan and Norton, 1992; Brooking, 1996; Edvinsson and Malone, 1997).

The researcher states, therefore, that an extended view of relational capital is used in this study to capture the recognition of relational capital information. (Gately and Cunningham, 2014 pg. 518) states that "the concept of relational capital is closely aligned with social capital; that knowledge embedded in the activities and processes of people."

The researcher, therefore, proposes a hypothesis, as follows:

*H1: Intellectual Capital recognition in financial statements has become an increasing phenomenon in the financial records of listed insurance companies in the Abuja and Lagos stock exchanges.*

#### **2.2.2.4 Value Added Business Recipe (Value added Strategic capital):**

According to Adam and Oleksak, (2010 p.3), “Business recipe is the way that an organisation combines the above three types of knowledge assets with its physical and financial assets—and connects it all with a market need.” Business recipe (Strategic Capital) – “Strategic capital is necessary (in my view) for tying the other capitals together. From an accounting perspective, strategic capital is measured through the financial statements, the total of the overall operations. From an internality perspective, it is embodied in purpose, value proposition, culture and innovation. This is also where I would classify governance (the G in ESG)” (Adams, 2010). The monetary stakes in today’s economy are high. Putting knowledge to work effectively can create incredible wealth.

According to Adams (2010 p.4), “the intangible capitalist is hampered by lack of good information. This is because the accounting and information systems we use today are built on customs going back hundreds of years that were designed for tangibles-based businesses”. Much appreciation would be demonstrated by modern information and economic variables that would bring gradual changes to accounting standards. However, managers should still be able to gather information about intellectual and intangibles right now. “All the capitals have intangible characteristics from an accounting, internality and externality perspective. This begins to suggest (if not quantify) how such a large portion of corporate value has moved off the balance sheet and is now intangible” (Adams, 2017, p.15).

Three kinds of information are readily accessible currently to any manager and can be used to triangulate the performance and potential of intellectual capital:

1. Intellectual Capital Expenditure: Although most of the investment in knowledge intangibles must be booked as an expense under current accounting conventions, accountants can create a management report that tracks all such investments year by year in each of the intangibles categories. Eligible expenses include the creation and building of processes (both IT and implementation), long-term investments in branding and partner development, as well as training (Barker, 2020).
  
2. Indicators: A second form of measurement available to management teams is non-financial indicators. These are aspects of the information base that can be counted and measured. Many companies have already embraced this concept and track key performance indicators (KPIs). Examples include process metrics and demographic data of human and relationship capital such as headcount and customer number and size (Pearson, 2021).
  
3. Assessment: Many aspects of the performance of the knowledge factory cannot be counted or measured directly. For this reason, an additional type of information is needed. Assessments use a standard tool to tap into the wisdom of stakeholders to analyse the effectiveness, outlook and risk of the various components of the knowledge factory. Assessments ask questions for each key intangible such as “Is it adequate to support our business recipe?” “Is it adequate for our future needs?” “Where are the risks in this intangible?” This is the fourth category of intellectual capital. There is no known study of intellectual capital in Nigeria that has indicated business recipe as one of the categories. This category enhances the value creation capability by its connectivity with the other categories to create wealth for the stakeholders. This is one of the gaps this research seeks to fill (Kano, 2020).

Table 2.2 shows the components of each Intellectual capital category. This demonstrates that intellectual capital components are subsets of intellectual capital categories.

Human capital	Structural capital	Relational capital	Business Recipe	References
Knowledge, skills, attitudes, abilities, competencies, support, motivation, qualities of company's staff, training, development,	Intellectual property, intangible, infrastructure	Relations with external and internal stakeholders, customers, community, partners, government, public perception	No components are mentioned for this category.	Abhayawansa Guthrie (2014)
Employee knowledge, education, innovativeness of staff	Network systems, infrastructure, Intellectual property, management culture, philosophy,	Customers and suppliers distribution channels, company reputation and collaboration	No components identified for this category of Intellectual capital	Bellora Guenther (2013)
Training and education of employees,	Trademarks, patents, licenses,	Relationship and connection, lobbying,	No components were identified	Sydler et al. (2013)

skills, creativity, capacity, teamwork, problem-solving capability, motivation, attitude	Brands, Logo	external stakeholders, network, relationships with suppliers and customers	for the business recipe category	
Qualifications, training, talents investment, knowhow and innovations,	Social and environmental policies, compliant systems, organisational registration	Managing customer satisfaction, customer care support relations	No component identified by this study for this category	Maria, (2014)
Competence, attitude, intellectual agility	Organisation, renewals and development	Relationships,	No component for this category	Calabrese et al. (2013)
Knowledge, a catalyst for the creation of new knowledge, experience, and competencies will be in people's heads	Captured and leveraged, re-usable forms, processes, information technology, databases, training	Source of new knowledge, monetising knowledge, shared relationships	The ways organisations combine the three knowledge assets with their physical and financial assets and connect it	Adam (2010)



	materials, intellectual property		all with a market need	
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Table 2.2 Components of Intellectual Capital by Category (Researcher’s adaptation, 2022)

### 2.3 Recognition of Intellectual Capital: Definition and Concept

The awareness of, and desire to develop, Intellectual capital material recognition has increased in the past two decades or so. Though the International Accounting Standard Board (IASB) offered accounting treatment of intangible assets under International Accounting Standard No.38 (IASB, 2021), this is inadequate in recognising the broader aspects of Intellectual Capital. However, according to some scholars, Oliveras et al. (2008, p.170); Minovski, (2018); Dumay, (2020); Zambon, (2020), the non-existence of mandatory regulatory standards for the recognition and reporting of Intellectual Capital data does not stop companies from looking at other ways of reporting it. Consequently, people in commerce in numerous parts of the world investigated the development of Intellectual Capital recognition and disclosure systems (Edvinsson and Malone, 1997; Sveiby, 1997, p.96; Dumay,2020; Quintero-Quintero, 2021).

There is no universally accepted framework, format, or content for Intellectual capital disclosure (Bukh et al., 2000, p.87; Ulum, 2019; Mamun, 2020; Birindelli, 2020). As Intellectual Capital recognition has no governing institution (Mouritsen et al., 2004), it has been produced with various approaches. The approaches for the recognition of Intellectual Capital range from purely narrative, to quantitative information forms (Edvinsson and Malone, 1997; Guthrie and Petty, 2000; Warden, 2003; Zambon, 2020).

Intellectual Capital recognition (as distinct from Intellectual Capital itself) is well-defined in numerous ways in the literature. (Antosova, 2011; Zambon, 2020; IIRC,2022). Abeysekera and Guthrie (2005) explained it as exterior reporting aimed to satisfy the request of users who are

incapable of controlling the production of reports regarding Intellectual Capital, precisely to meet all of their information requirements. The INCAS guidelines (p.7) defined Intellectual Capital information recognition as a tactical instrument to evaluate and develop the Intellectual Capital of organisations. This indicated the nexus between corporate goals, business processes and the business success of an organisation, using indicators to measure these interlinked elements. A similar meaning of Intellectual Capital recognition was given by Talukdar (2008), who defined it as a voluntary addition to a company's financial report that offers detailed data about the Intellectual assets of the organisation which also comprises its management and building the company's competitive advantage in the future. In the recognition and disclosure, the connection between the Intellectual Capital situation and the model of creating value creation. The RICADIS Project (2006) described Intellectual Capital recognition as a story about value creation which indicates how organisations utilise knowledge resources within the context of their business model and strategy. In this regard, the combination of numbers, narrative and images is presumed to be supportive.

For operational reasons, Intellectual Capital recognition is defined for this research as the narrative and description of the content that carries information about pre-defined Intellectual Capital in annual reports. This recognition includes information in separate and distinct reports about Intellectual Capital which is deliberately devoted exclusively to Intellectual Capital information as well as data mentioned in the whole aspect of the annual reports which may not intentionally concern Intellectual Capital but is considered to characterise Intellectual Capital elements nevertheless. The above definitions of Intellectual Capital recognition set the scene for what and how to recognise intellectual capital in financial statements (Hejase, 2016).

Human capital is a category of Intellectual capital that concerns human resources or employees' skills, knowledge, experience and evaluation of their contributions to the overall objective and performance of any organisation. It is not individually traced to the financial statements of listed insurance companies. This research is about the recognition of intellectual capital in financial statements or financial annual reports. Employees' morale and loyalty to an employer are motivated by rewards

and pay. Therefore, it is challenging to directly attribute the cost of their loyalty, morale and performance to the financial statements, except by costing individual cost elements, such as training cost, and welfare cost (Wooll, 2022).

The structural capital category components include databases, organograms, processes, systems, manuals, corporate, management philosophy, strategies, and routines. These are not individually traced to the financial statements except for their physical cost which may have been classified and coded as expenses in the income statements of the financial statements of an organisation. Some of the components are abstract and have hardly been quantified and identified as structural capital traced to the financial statements. The value-creating capability of these components is difficult to trace to the full financial statements except the mere bottom line performance results of the company. The recognition in the financial statements of structural capital is seamless and mostly treated as written-off expenses in the year it was incurred and yet not captioned as such. Structural capital components together enhance and encourages emergent strategies or innovation in the long run which is not traced to the financial statements and recognised therein (McKinsey, 2021).

Relational capital concerns the relationship created with external stakeholders, such as customers, investors, shareholders, and even the media environment. Maintaining and forging sustainable relationships is key to furthering the competitiveness and value creation of the ability of Intellectual capital. The value of relational capital components is difficult to evaluate and lacks direct recognition in the financial statements unless some form of assumed metrics is used to reflect its values in the eyes of the investors and shareholders. Relational capital on its own is not recognised in the financial statements. It is the assumed perceived market or public perception resulting from the bottom line figures that drive the market value of the company's shares in the stock exchanges (Segal, 2022).

The overall outcome resulting from the connectivity afforded by the Business recipe category of the other intellectual capital categories gives the difference in this research. The business recipe as a category of Intellectual capital has no place on the face of the financial statements, but it is the

combined usage and deployment of the other categories that results in an enhanced and perceived public or market value outlook. The stability of the organisational management structure and systems sends a good reputation to the community of shareholders and potential investors. This is a concomitant effect of long-standing sustained and healthy bottom-line performance leading to shareholders' dividend announcements. This affects the value of the share of the company and indicated the value created which makes it attractive to potential investors (Fernando, 2022).

The business recipe (strategic capital) category brings together other categories to achieve a sustained and lasting reputation and value for companies. This is indicated and demonstrated in the improved bottom line. The business recipe category is important and relevant for the full appreciation of the existence of intellectual capital in any organisation. This results in the increased value and wealth created through the lens of the shareholders, public and investors. However, intellectual capital value is not recorded and recognised in the financial statements as a traceable asset in the company's financial records (Clarke, 2018).

The business recipe category supports this research and there is no known use of this category in any intellectual capital studies in the context of Nigeria, especially of Abuja and Lagos listed insurance companies. This is a gap this research attempts to fill.

ACRONYM	MEANING
MERITUM (1998)	Measuring Intangibles to Understand and Improve Innovation Management (1998 – 2002)
MAGIC (1998)	Measuring Accounting Intellectual Capital (1998)
DATI (1998)	Danish Agency for Trade and Industry (1998)
OECD (1999)	Organisation for Economic Cooperation and Development (1999)

Table 2.3 Past Trends of Intellectual Capital Recognition

Table 2.4 shows the working groups that sustained earlier exertions to make progress in the development of guidelines for measuring and reporting Intellectual Capital projects of the European Union.

<b>ACRONYM</b>	<b>MEANING</b>
PRISM (2001-2003)	Policy-making, measurement and Reporting Intangibles, Skills development Management (2001 – 2003)
RICARDIS (2004 -2006)	Reporting of Intellectual Capital to Augment Research Development & Innovation in ( SME) Small and Medium Enterprise (2004-2006)
INCAS (2006-2009)	Intellectual Capital Statement – made in Europe (2006 – 2009)
University Act (2002)	Austrian Intellectual Capital Reporting under the University Act 2002
Japan Guideline (2004)	IC Japanese Government Intellectual Capital Reporting Guidelines (Polo 2007)
IAS 38 (2004, 2014)	International Accounting Standards for Intangible Assets (2004, 2014)

**Table 2.4 – Working Groups, Legislations and Guidelines for Intellectual Capital**

Table 2.5 summarises the working groups and guidelines for Intellectual capital recognition in financial reporting generally.

<b>Projects</b>	<b>Study/Guidelines</b>	<b>Outcome/Recommendation</b>	<b>REFERENCES</b>
MERITUM (1998 – 2002)	Guidelines on managing and reporting intangible assets	Roadmap of identification of intellectual capital and	Meritum (2002)

		facilitates Intellectual capital recognition	
MAGIC (1998 – 2001)	Develop a low-cost and pragmatic IT solution for measuring and accounting for Intellectual capital in the engineering and manufacturing sectors	1. Benchmarking best practice in measuring Intellectual capital (IC) 2. Production of knowledge management handbook 3. IT tools for measuring accounting Intellectual capital 4. Roadmap for generating and managing IC	Magic (2001)
PRISM (2001-2003)	Policy-making, measurement Reporting Intangibles, Skills Development, Management	1. Maintaining historical-based data having position and monetisation 2. Shifting from hard to soft indicators e.g workforce qualification	Eustace (2003)
RICARDIS (2004-2006)	Guidelines for Intellectual capital recognition in the area of R & D	Piloted Intellectual capital (IC) statement preparation linking IC with company objectives, knowledge narratives Indicators selection	Ricardis (2006)
INCAS (2006 – 2009)	Creating guidelines for Intellectual capital	Provided tool kit for reporting which explained	Polo (2007)

statements for SMEs in Europe/financial institutions	value creation based on the vision of the organisation and their IC, business processes and external impact
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**Table 2.5 – Working Groups and Guidelines for Intellectual Capital Recognition**

The foregoing historical outline marks the beginning of the scene and the reflection of the journey of Intellectual Capital recognition in commercial practices and academic research. The energies expended in the development indicate the growing importance of revealing value creation for stakeholders, especially for both current and prospective investors. Nevertheless, a pragmatic shortfall is present in the existence and in exploring the practices and potential benefits as well as envisaging the practicality and materiality of recognition. This research is part of the determination to fill the lacuna that exists in the body of intellectual capital knowledge in Nigeria, especially concerning the listed insurance companies in Abuja and Lagos.

## **2.4 Factors Affecting Intellectual Capital Recognition**

The factors that generate and allow such a unique way or model in creating value are not just financial assets, but various types of intangibles, including human beings' skills and competencies, innovation, technology, know-how, designing capacity for new businesses, reputation and long-term trust among companies or stakeholders. In this way, intangibles play a key role in attaining the Sustainable development goals (SDGs) (McKinsey, 2021).

Unlike assets recognised in the balance sheet (such as financial assets), intangibles can grow as a result of the accumulation of human activities for a certain period and be utilised in business activities. More importantly, the combination of intangibles deployable in one company will be different from that in another. Therefore, it is not easily imitated, and even if some standardised technology solutions can be purchased, techniques, know-how or organisational designs and procedures to manage cannot

be easily copied. Another characteristic of intangibles is that they may last longer than tangibles as long as they are well-tailored to the business needs and features. There is also constant investment in them over time, for example, R&D, people learning and development and market-led innovations. “Significant positive correlations were also observed between structural capital disclosures and importance of intangible assets” (Vergauwen et al., 2007; p.1167). Vishnu and Gupta (2014; p.83) also found a “positive relationship between Intellectual Capital components, that is, human capital, structural capital and relational capital and performance variables, that is return on assets and return on sales”. The age of the organisations was found to be statistically and certainly related to the disclosure of structural intellectual capital and disclosures of relational intellectual capital.

Intellectual capital is a portfolio of strategic firm resources that enables an organisation to create sustainable value (Kristandl and Bontis, 2007, p.1520).

There are four components of Intellectual capital, however, these three components are now the most commonly accepted: human capital (HC), relational capital (RC), and structural capital (SC). Each of the three Intellectual capital components can be defined (InCaS, 2009), can be measured through indicators (Pedersen, 1999) and cover separate management areas (InCaS, 2009).

The various intangibles can be categorised as human capital, structural capital and relational capital which are critical for the insurance companies' capability to create value. These three are aggregately called 'Intellectual Capital' in traditional academia. However, the fourth category, business recipe, is seen as the capability and machine that enables the other three categories to work together to achieve a viable intellectual capital value. Structural capital includes corporate philosophy, history, technology, know-how, teamwork capability, organisational design and procedures, R&D capacity etc. This specific form of intangible capital is named 'intellectual capital' in the International Integrated Reporting Framework. Relational capital covers relationships with customers or clients, cooperation with the region where the company operates, trust with business partners and so on. This is encompassed in the IIRC's Framework as 'Social and Relationship capital.'



Needless to say, business activities require some financial and/or manufactured capital, but intangibles can unlock those tangibles and create real value. Moreover, if a company lacks some expertise to handle its intangibles, it may be quite difficult to create value from other capitals or capture it within the company.

In general, intangibles can last longer than tangibles, but they cannot survive without proper maintenance activities. If a company leaves them in a situation where another company can easily utilise or imitate them, the core part of the company's value creation mechanism may be diluted or even dispersed.

## 2.5 Relevance of Intellectual Capital

The catalyst of growth of businesses in the modern era is mostly intangible assets as opposed to physical assets of any organisation. The corporate world and academia have termed this as Intellectual Capital. This terminology has been studied in depth, is clearly understood and is generally characterised by process loops of the three categories of Relational Capital, Human Capital and Structural Capital as shown below.

Relational capital	Human capital	Structural capital
Investor feedback	Employee education index	Databases
Customer satisfaction index	Days of annual training	Patents
Repeat business	Average tenure	Internal processes

**Table 2.6 Source Evaluator loops of Intellectual capital (Attainix Consulting)**

Consequently, every company or organisation ought to evaluate and report and/or publish their respective Intellectual Capital to be in the position to effectively manage the growth and value report such incremental and intrinsic worth of the company to both prospective and current investors including lenders.

By several standards and valuations, Intellectual Capital epitomises more than fifty per cent of most public companies' market valuation. This value could be almost one hundred per cent value in some companies such as Microsoft, Uber and Google.

Some researchers and professionals of intellectual capital proclaim that Intellectual Capital would be an important tool in the development of the knowledge economy and modern companies in future. Managing, measuring and reporting data about Intellectual Capital would become as significant an economic event to organisations in the future as reporting and publishing annual financial reports.

Intellectual Capital recognition and publishing would be beneficial to a larger business community as follows:

1. Intellectual capital has a positive effect on a company's financial performance (Chen et al., 2005; Pucci et al., 2015k; Inkinen, 2016; Ozkan et al., 2017; Ginesti et al., 2018; Alfraih, 2018) However, Intellectual capital can also negatively affect financial performance (Firer & Mitchell, 2003; Zhicheng, 2016).
2. Intellectual capital drives and support the creation of organisations' wealth.
3. Organisations might use an Intellectual capital report and statement to quantify the efficiency and reassess the strategies of the company including repositioning and re-strategising.
4. Prospective and current investors including financiers might use Intellectual capital to comprehend the establishment's value formation procedures and the source of sustainability for the future.
5. Potential clients and customers might use it to assess whether or not the company has strengths and powers as desired by its suppliers.
6. Future and potential workers could use Intellectual capital when choosing the right company to work for and develop their careers. The additional benefits of this might be to reduce the wear and tear of knowledge leaks to rivalry in the creation of a circle for enlarged Intellectual Capital.

7. Bankers, especially investment bankers, might use Intellectual capital information and reports for setting up possible investors and buyers after echoing the strengths and weaknesses of each entity to comprehend a combined business that would be more resilient than each one separately.
8. Intellectual capital in a business includes a wealth of ideas and the ability for innovation which determines the future of the company.
9. Stock and investment managers including prospective and current investors might use Intellectual capital to discover overvalued and undervalued stocks, providing valuation data is recognised with the main report.
10. Bankers and lenders could utilise Intellectual capital information to assess the risk of loaning to organisations to manage the number and amount of nonperforming loans on their books.
11. Society at large will itself benefit since the combination of the above benefits would result in efficient utilisation of capital thus leading to the formation of more trades resulting in more jobs.

## **2.6 Effects of Intellectual Capital on Financial Statements**

The financial statement of a company provides all information regarding the financial performance of the company. According to Arifa and Ahmar (2016 p.45), “the financial statement, particularly on the balance sheet, there is information on tangible assets, which can be assessed using monetary units. Meanwhile, the information on intangible assets tends to be ignored because it cannot be assessed using monetary units. Thus, this causes the values that affect the company's financial performance to be lost.”

Intellectual Capital or asset information is difficult to measure and identify. This makes such information unable to be traced directly in the financial statement. Therefore, the solution is by using

the Intellectual Capital approach to obtain more information. As a result, the company has the same value as the value creation.

Information on the company's financial performance can be seen through the financial statements made by the company. One of them can be seen from the level of profit generated by the company in the income statement. One of the parties who needs the information is the investor. Before investing in a company, an investor will certainly consider the company's performance through its income statement. Thus, the investor will make a preliminary conclusion that the company has achieved consistently high profits for some years and so can be used as a place to invest.

Rambe (2012) researched intellectual capital and return on assets and the results show that intellectual capital has a significant effect on return on assets and intellectual capital does not affect the growth of revenue.

Ifada and Hapsari (2012) on the effect of intellectual capital ((IC) on financial performance using the measurement of Return on Equity (ROE), Earnings per Share (EPS) and Market to Book Value Ratio (MBV ratio). The results show that Intellectual capital has a positive significant effect on the company's financial performance and a significant effect on the company's financial performance in the future.

The concept of financial performance can be said as a series of financial activities in a certain period reported in financial statements, such as income statements and balance sheets, and is used as an analysis to see how far a company performs the financial implementation regulation well and properly.

## **2.7 Intellectual capital recognition practices**

Broadly speaking, the prominence of intellectual capital is increasingly widely recognised, and the quest for the application of intellectual capital is increasing (Moslehi, Mahogar, Badie & Lucas, 2006). This is because workers possess the intellectual capital that plays a crucial role in creating

value. They gain an advantage which allows them to compete in the market which will subsequently create wealth for the investors. Although both tangible and intangible assets are indeed necessary for the insurance industry, however the need for recognising intellectual capital and include it as an intangible asset in establishments' financial records may be further relevant than the need for tangible assets. Intangible assets are required to build a competitive advantage for the organisation. Non-recognition of such assets will create misinformation about the value of such an organisation (Holland, 2009). This research explores the relevance of the Intellectual capital recognition of these components.

A company's financial reporting should include both tangible and intangible assets to present the total resources that create value for the enterprise (Mahamad & Salman, 2011). For example, in sectors such as information technology, banks and insurance, which mostly rely on the knowledge, intellectual rather than physical assets are crucially important in the process of wealth creation. Thus, it has been observed that knowledge-intensive companies are often underestimated in the market because they are highly dependent on intellectual capital and have fewer physical assets (Volkov & Garanina, 2007; Brymer, Molloy & Gilbert, 2014). Whereas intangible assets that constitute the value of a company's intellectual capital need to be taken into account in financial reporting (Kujansivu & Lonnqvist, 2007).

In the information economy, there is an increasing recognition amid the commercial community of the importance of Intellectual Capital (IC) in generating value for stakeholders (Brooking, 1996; Edvinsson and Malone, 1997; Brennan, 2001; Bontis, 2003; Gogan, 2013; Meihami, 2014; Minovski, 2018 ). The Intellectual capital in a company's interior structure, employees and planned associations is realised as supporting the longstanding competitive benefit of the company (Edvinsson and Malone, 1997; Sveiby, 1997; Martín-de-Castro, 2011; Alkhateeb, 2016; Darius, 2022). Consequently, numerous organisations and working groups, mostly in northern European countries, placed more effort into the measurement and reporting of Intellectual Capital. These included the project of 'Measuring Intangibles to Understand and Improve Innovation Management'.

MERITUM project, Skandia AFS, 'Policy-making, Measurement and Reporting Intangibles, Skill Development and Management' (the PRISM project) and the 'Intellectual Capital statement – made in Europe' approach (the INCAS Project). (Also see Brennan and Connell, 2000; Garcia-Ayuso, 2003; Polo, 2007 and Spender, 2013).

Furthermore, some scholars, (Vergauwen and van Alem, 2005; Guthrie et al., 2006; Bismuth and Tojo, 2008) claimed that the change from old-style to information-based companies presented problems to the relevance of old-style financial reporting in displaying the actual market value of companies. Studies stated that the historic book worth of a company as recorded in traditional financial reporting had always been lower than its market value (Whiting and Miller, 2008; Wilson and Stenson, 2008; Lev, 2018; Agudelo, 2019 ). The difference between the two valuations was presumed to be partially a result of unaccounted Intellectual Capital data in old-style financial reporting (Edvinsson and Malone, 1997; Cordazzo, 2005; Fort et al., 2017). Therefore, it is assumed that reporting Intellectual Capital information in the usual financial reporting series may partly elucidate this book to the market discrepancy and, in turn, further reflect the accurate value of companies.

According to Tayib and Salman (2011, p.47), the majority of the indicators of Intellectual Capital were not supported by regulatory accounting standards issued in Nigeria. In Nigeria, Haji et al. (2012) researched the longitudinal viewpoint of disclosure of banks' Intellectual Capital, the outcomes indicated that the overall Intellectual Capital disclosure of Nigerian banks increased reasonably over the year being reported and that human and interior capital disclosures dominated the banks' reporting.

Insurance companies are service-oriented organisations whose main assets are intangible, that is, intellectual capital. This plays a significant role in the financial performance of both life and non-life insurance companies in Nigeria. The greatest asset of a service industry is therefore its human resource (Volkov & Garanina, 2007; Waarie, 2019; Hobson, 2019). For this reason, any study on

recognition, disclosure and value creation and measurement of intellectual capital is considered relevant and appropriate in the insurance sector, particularly in a developing economy such as Nigeria.

The growth in information-based happenings and plans hastened numerous requests to measure and report Intellectual capital. However, apart from individual companies' initiatives and local working projects, no worldwide rules and standards of disclosure and recognition have been approved. Therefore, the present interests in recognition remain mainly intentional. This review of practices of Intellectual Capital recognition is based on three different categories of entities that have contributed to the awareness of Intellectual Capital recognition practices.

## **2.8 Intellectual Capital and Financial Statements for Intangible Assets Recognition**

The discussion of accounting standards concerning goodwill and intangible asset which is Financial Reporting Standard (FRS) 10 and International Accounting Standard (IAS) 38 and their relationship with Intellectual Capital information recognition were adequately dealt with here. This discussion mainly highlighted the materiality and importance of International Accounting Standards in encouraging Intellectual Capital information recognition.

Accounting for intangible assets has progressed over the last forty-five years. For example, the discussion of research and development costs under the publication of Exposure Draft 14 took place in 1975 before it came to be mandated in 1984. Most discussions on aspects of intangible assets took place in FRS 10 (goodwill and intangible assets) and IAS 38 (intangible assets). As stated in the earlier section, FRS 10 was mandated in 1998 to deal with the reporting of intangible assets and goodwill before it was replaced by IAS 38 in 2004, which was then updated in 2014. This was targeted towards setting rules and metric dimensions for Intellectual capital and intangible assets.

FRS 10 described intangible assets as non-financial assets that have no physical substance nonetheless recognisable and measured by an entity through custody and legal rights. IAS 38 provided a

comparable definition, defining intangible assets as identifiable, non-monetary assets without physical substance. According to IAS 38, intangible assets are held to be utilised in the supply of goods or services, for rental to others or administrative purposes. Unlike in Financial Reporting Standard 10 (FRS 10), however, keeping and lawful right of intangible assets was not mentioned precisely in the definition in International Accounting Standard (IAS) 38 but it is referred to as 'controlling' elsewhere in the Standard. 'Control' in this context means legal right as in FRS 10.

Regarding the initial recognition, FRS 10 stated that an interior established intangible asset may be capitalised only if it has an ascertainable market value. Therefore, intangible assets such as brands, quotas, copyrights, licences, patents, franchises, reputations and trademarks can only be capitalised if there is a market that can value the asset consistently.

In the meantime, IAS 38 set two conditions within which intangible assets can be capitalised: first; upcoming monetary benefits that may be attributable to the assets may flow to the company. Second, the cost of the assets can be assessed dependably. These conditions apply to both inside-generated and outside-procured intangible assets. Except the capitalised criteria set by the two standards are met, then all the costs to obtain the intangible assets have to be written off to the profit and loss account in the year in which the cost was incurred.

The ensuing treatment after capitalisation is that of the amortisation of the asset. Both standards stated the cost of capitalised intangible assets should be amortised on a methodical basis over the estimated useful life. Though, FRS 10 stated that intangible assets should not be amortised if they have an unlimited useful economic lifetime. The summary of both standards is presented in Table 2.7



Dimension	FRS 10	IAS 38	References
Definition	Non-financial assets that have no physical substantial under safekeeping and legal rights	An identifiable, non-monetary asset without physical substance.	FRS 10 IAS 38 (2004, 2014)
Condition for recognition	Available market valuation	Identifiable regulatory <input type="checkbox"/> Probable give future benefit to the company <input type="checkbox"/> Cost can be consistently evaluated	FRS 10 IAS 38 (2004, 2014)
Amortisation	Over the methodical useful life No amortisation for indefinite asset	Over the systematic useful life	FRS 10 IAS 38 (2004, 2014)

**Table 2.7: An overview of accounting standards for intangible assets**

The task to be further addressed was whether or not all the categories of Intellectual Capital used in this research would pass the strict conditions for recognition stipulated by both accounting standards. Referring to the standards, the capitalisation for intangible assets valuation on the balance sheet is grounded on three rules. First, the separation of intangible assets. That is, an asset must be recognised as an exclusively distinct item that can be sold, transferred or licensed. Second, it should be controllable by the company which means that the advantages derived from the usage of the assets

are lawfully possessed by the company. Third, there is a market where its valuation can be ascertained dependably. In circumstances where no market exists to base its valuation, the discounted present value of anticipated net cash flows produced by the assets would be used for valuing the assets ( Abeysekera, 2008; Brannstrom and Giuliani, 2009; Kes, 2014; Palmer, 2022). The researcher posits that company value creation from Intellectual Capital should not diminish in value which would negate the perception and attraction of the investors. If the strict guidelines of FRS 10 and IAS 38 are to be followed, then the value created as a result of intellectual capital would be seen to be outside the globally agreed accounting standard. Hence, different countries were encouraged to have local guidelines, such as in Germany (Goebel, 2015).

The two criteria above appeared to make the recognition of intangible assets (IA) very particular and difficult ( Striukova et al., 2008, IAS 38, 2022). It is debatable that it could even be more difficult to allocate Intellectual Capital groups into such an outline. This is because the fundamentals of Intellectual Capital are wider than intangible assets; it can be more intangible assets than those as described in the accounting standards which means that several Intellectual capital categories are vulnerable to being recognised as assets in financial statements. (Seetharaman et al. 2002; Barker, 2020; Murphy, 2022), in reply to this matter observed that ‘Notwithstanding this positive development, IASC (International Accounting Standard Committee) did not depart from its longstanding “industrial” paradigm in addressing the capitalisation of Intangible assets and Intellectual Capital when it sets unnecessary conditions for the resolution.’ In specific, the inappropriateness between the accounting standards’ principles for recognition and the factual nature of Intellectual Capital is emphasised in the subsequent points:

□ **Non-physical element** – Intellectual Capital has both non-physical and physical substance. Intellectual Capital is physical-based and comprises laboratories, training and development centres, high technology machines, and computers that contribute indirectly to value creation through effective and efficient management processes, human resources development and product research development. (Antosova, 2011; Cunha et al., 2015)

- **Recognisable** – Considerably Intellectual Capital is unable to be identified as it exists in the mind and judgements of people such as ideas, corporate cultures, management processes, management philosophy, customer satisfaction, etc. These types of assets are only accessible via closing conclusions that are produced by persons, principles or systems. (Tsai, 2011; Shields, 2021)
- **Separable** – Even though some Intellectual Capital passes this test, there are yet countless elements of Intellectual Capital that are unable to be not separated and divergent from others. Relatively, Intellectual Capital components are frequently interconnected and intertwined with each other. The majority of Intellectual Capital forms a sole ‘producing unit’ in creating value for companies then becomes of less usage if they work independently. For example, structural capital such as innovative systems or management processes can solitary be expressively used by very skilled employees. It would be less useful if one element of the unit is absent. (Hejazi, 2018; Chen, 2021)
- **Controllable/custody or legal right** – Intellectual Capital is not controllable or does not lawfully belong to companies. It is very hard to establish the company’s permissible control or ownership over its employees and customers. An employee is a free information asset who goes home at the end of a working day or may change their employment to another company if they receive a better offer. (Chen, 2021; Wooll, 2022, Rab, 2022)
- **Reliably measurable** – Some elements of Intellectual Capital have no market in which the value or cost could be based (at purchase price). Many intellectual assets are developed internally rather than externally purchased, such as company reputation, customer loyalty and brand. These are challenging to measure financially and consistently. (Kirkpatrick, 2006; Abdu[laali, 2018; Minovski, 2018)
- **Reported as cost** – Intellectual Capital is more effectively reported through the lens of future value creation (e.g. performance-based reporting such as value-added intellectual capital) rather than reported at historical cost (or fair value). In addition, narrative, images and visual presentations of value creation flow are presumed to be very useful in some cases (RICARDIS, 2006; Feimiant, 2014).

□ **Amortisation** – Some Intellectual Capital has no definite useful life, and instead can be renewable over time, thus not being subject to amortisation and or depreciation. (CFI Team, 2022)

The alternative way to account for Intellectual Capital is as goodwill (also under FRS 10). There is a lack of agreement over the definition of goodwill, however, in general terms, it represents the present value of abnormal returns (Seetharaman et al., 2004b; Stenheim, 2012; Zambon, 2020; Amel-zadeh, 2021). The definition and recognition of goodwill under the accounting standard is limited to the ‘purchased goodwill’ which is described as the variance between the amount paid for the acquisition of a company and the total fair valuation of the company’s recognisable assets. The surplus amount paid over the fair value of the assets is capitalised as goodwill under the section of intangible assets in the financial statements. The motive for the excess value of a company over the reported fair value of identifiable assets is to do with an amount of non-financial factors such as the expertise of the employees, qualifications of the employees, brands, product quality, customer base, location, reputation, networks and so on. These are not recognised in the financial statements of the company. This description is similar to the Intellectual Capital definition concerning the difference between the book value of equity and the company’s market value. The researcher opines that if purchased goodwill can be recognised in the books of the new owner (buyer) of a company, why was it not possible to recognise its value in the books of the current or previous owner (seller)? This is a gap in itself (PwC, 2017).

Though, the correctness of accounting for goodwill as a device for Intellectual Capital accounting is problematised firstly on the basis that the valuation of goodwill is an all-inclusive account. The meaning is that the account not only lumps together the whole Intellectual Capital valuation but also fails in the consideration of the individual component of Intellectual capital that comprises the goodwill. A singular account of goodwill would not allow management to direct, measure and manage Intellectual Capital categories individually. Second, the standards only recognise purchased goodwill whereas many Intellectual Capital components are internally generated (IAS, 2014).

Many authors determined that neither earlier nor current accounting standards adequately and effectively accommodate Intellectual Capital reporting in the core body of annual reports due to the constraints of the standards (Abeysekera, 2007; Striukova et al., 2008; Goebel, 2015, Matricano, 2016). Essentially for the determinations of this research, it would seem very unlikely that accounting standards would have any substantial assured effect on Intellectual Capital data recognition, other than the possessions on the reporting of inadequate intangible assets required to satisfy the provisions of the standards. Contrary to the above standard provision, according to the researcher, the value of a company that has operated and existed for many years would be influenced by age and profitability history. The researcher, therefore, proposes the following hypotheses:

*H2: Intellectual capital (IC) is positively connected with company profitability*

*H3: Intellectual capital (IC) is negatively related to company age*

## **2.9 Justification for intellectual capital recognition**

The first basis for identifying Intellectual capital attributes is to reduce the cost of capital or to attain a cost of capital proportionate to the true upcoming cash flows of the business. According to Fort et al., (2017 p.715) “Lenders to the company will often be influential stakeholders. Indeed, as the debt to total assets ratio increases, lenders may gain greater influence on the company’s management, driving them to hasten their investment in Intellectual Capital as well as encouraging them to better manage Intellectual capital resources given their relevance for value creation”. This effect is likely to be more noticeable in countries with insider government systems (Goebel, 2015). Elshandidy and Neri (2015) contended that the monitoring role of the corporate governance structure (that is the presence of autonomous managers) recovers the stewardship function of the company, introduces an external control mechanism that lowers agency costs, alleviates information asymmetries, and inspires managers to provide more truthful company risk information.

The utmost explanation of the connection between the cost of capital and the unpackaged recognition is contained in a group of cited papers, most notably Botosan, (1997) and Sengupta, (1998). Botosan (1997), for example, found that the level of non-financial disclosure content was inversely associated with the cost of equity capital. A similar relationship was also demonstrated in a study that investigated the cost of debt capital (Dhaliwal, 2011; Eliwa, 2019; ). Similar theoretical arguments and predictions of the relationships have also been tested in studies of Intellectual capital recognition. ( Orens et al., 2009; Michelon, 2020; Ramirez, 2022). For example, Orens et al., (2009) directed a study of 267 listed companies from European countries and discovered that the growing majority of Intellectual Capital recognitions in company websites and webpages lowered the cost of capital. Elshandidy et al., (2013) found that company leverage impacts the amount of risk information that is provided by companies in their narratives. Through companies' risk profiles, potential investors can adequately estimate company market value, and make more accurate investment decisions (Elshandidy and Neri, 2015). Therefore, a positive association is expected between leverage and Intellectual Capital.

In as much as the positivity influences, the relationship could be negative as well between leverage and Intellectual capital. It has been contended that a shortage of Intellectual Capital material gave rise to an information-lopsidedness about the correct value-adding potential of a company. This, in turn, was able to undervalue a company and ensure the investment looks to be of higher risk than is the case. Therefore, investors will request higher expected returns on investment to recompense for possible risk of investment ( Orens et al., 2009, Fort et al., 2017) with a related effect on the cost of capital to the company.

Secondly, the presence of Intellectual Capital information increased the relevance of financial statements in persuading the decision-making of investors. Since Intellectual Capital is considered the most strategically important asset type in creating future value (Xu, 2018; Albertini, 2020; Jardon, 2021), integrating information about it in the financial statements enabled investors to more accurately determine the economic value of companies. Several empirical studies have supported the

relevance and materiality of Intellectual capital information. (Marr et al. (2003, p.451); Li, 2010; Hussinki, 2017; Kasoga, 2020) which established that information about Research and Development spending and investment in computers had a positive effect on the market value of 1000 companies. Intellectual Capital information such as brand assets reported in the financial statements had value relevance as it prejudiced the market price of shares in the stock exchanges. (Harnovinsah, 2017; Basslouny and Gawad, 2019) Equally, a study suggested that Intellectual capital information concerning IT expenditure, information systems, R&D and patents worryingly elucidated disparities in market value (Ghosh and Wu, 2007; Maskus, 2018; Dancokova, 2022).

The third rationale for Intellectual capital information recognition relates to internal use, particularly in the area of controlling and managing the performance of knowledge activities. (Evans, 2015; Minovski, 2018; Alfiero, 2021).It was argued that the inner revelation of Intellectual Capital could be an active instrument in the management and controlling of the usage of, and activities concerning, intangible resources which leads to future innovation and value creation. ( Santis, 2018; Kianto, 2020; Rajabalizadeh, 2022). Internal recognition of Intellectual Capital allows users to consider the future of a company rather than merely making prudent assessments of historical performance. Such recognition could conceivably be able to clarify the mechanism that underpins the relationships between internal resources, external business partners and the structural capital of companies to create value for customers, shareholders and other stakeholders. (IFRS, 2018; Stroehle et al., 2019) The researcher states that the various investments in Intellectual Capital enhance the external image and public perception of the value of a company. This is also influenced by the credit profiling of the companies concerned. Equally, the RICARDIS project (2006, p.11) specified that Intellectual Capital recognition represented an internal directional device helping companies to develop and assign resources, create a strategy and simplify policymaking. Good examples of the use of Intellectual Capital recognition as part of a management tool kit are Skandia Navigator and the Balanced Scorecard (Gogan, 2014; Fischer, 2014; Plasecka, 2015).

The researcher hereby proposes the fourth hypothesis as follows:

*H4: Intellectual capital (IC) value of a company is linked to its leverage state*

## **2.10 Prior Studies on Intellectual Capital Recognition**

This phase reviewed earlier research on Intellectual Capital recognition and disclosure that utilised content analysis, and distinctly considered studies in African countries. These examined business-specific investigations. Table 2.8 and Appendix 7 below list the features of important empirical studies that were conducted over the past years in.

### **2.10.1 Some Intellectual Capital Studies in Developing Countries in Africa**

Intellectual Capital studies have been conducted in some other developing African countries. These are the authors and countries of the studies: Odunayo & Msomi (2021) in Southern Africa; Asare et al. (2017) in Ghana; Cronje & Moolman (2013) in South Africa; Menjo et al. (2014) in Cameroon, Kariuki (2014) in Kenya, Asare et al. (2017, 2013) in Ghana.

Intellectual capital and financial performance of unlisted Southern African development community's general insurance companies were researched by Odunayo & Msomi (2021). This was a twelve-year (2008 to 2019) study of 13 African countries out of the sixteen that were used. The three countries excluded from the study are Comoros, Lesotho and Eswatini. It was concluded that there was a significant and direct relationship between lagged return on assets, intellectual capital and financial performance of insurers in the Southern African development community (SADC). The data used in this study focused on the general insurance sector in the SADC. The life insurance business was excluded and Pulic's VAIC model was used to measure intellectual capital. Other methods would have resulted in a different outcome. Only secondary data extracted from S & P capital and Refinitive Eikon were used. The insurance business could be affected by climate and environmental factors that may vary from country to country. The researcher's study is based on two cities in Nigeria.



Asare et al. (2017) studied the relationship between intellectual capital and the profitability of emerging insurance companies in both listed and unlisted insurance companies in Ghana. The outcome of this study was that non-life insurers' companies have high intellectual capital performance in comparison with life insurers' businesses. There was a positive relationship between intellectual capital and profitability of insurance in Ghana while human capital efficiency is the main driver of insurers' intellectual capital performance. This study focused on both listed and non-listed insurance companies. Therefore, financial statements' data validity and reliability may be in doubt as non-listed insurance companies' financial statements don't need to be audited. The sizes of the insurance companies mentioned would not form a good basis for comparison. Investors' perceptive were not mentioned. This research though will focus on listed insurance companies in Abuja and Lagos stock exchanges in Nigeria and will be carried out using primary data, interviews and survey questionnaires together with secondary data.

Cronje & Moolman (2013), researched Intellectual capital: measurement, recognition and reporting in the Johannesburg stock exchange in South Africa. This was regulatory exploratory work on the theory of accounting and modification for a standardised and comparable approach when accounting and reporting on intellectual capital. Forty listed companies from a mixture of different industries were studied and concluded in the affirmative. Frier and Stainbank (2003) studied 65 listed companies (in six industries) in South Africa, testing the relationship between intellectual capital and the company's performance evidence. Their findings indicated that the relationship between the performance of a company's intellectual capital and profitability, productivity and market are informative but with variations. This study cut across different industries with only three insurance companies. This was a desk study carried out using books, journals and theoretical accounting information. There was no field survey or interview of stakeholders, notably of investors.

Menjo et al. (2014) carried out a study on the Impact of Intellectual capital efficiency on the financial performance of financial institutions in Yaounde, Cameroon. The data from the national statistics office hypothetical deductive method on sixty companies, which included ten insurance companies

for two years 2007 to 2008. The outcome of this study is that financial institutions still depended very much on capital employed since it is positively significant to profitability while human capital and structural capital are not. This study would probably have a different outcome if the period covered more than two years. This study did not state whether or not the financial institutions sampled were listed and whether the ten insurance companies were life and/or non-life businesses. Stakeholders' perspectives were not considered in this study. The sizes of the companies and their management structure were not mentioned.

Kariuki (2014), Intellectual capital, corporate reputation, corporate culture and performance of firms listed at the Nairobi Securities Exchange, Kenya researched the resource-based view of the firm theory for the period 2009 to 2012 (four years). The finding found there was a significant relationship between intellectual capital and non-financial performance and financial performance using return on assets (ROA). There was no significant relationship between intellectual capital and return on equity (ROE) and dividend yield of firms listed on the Nairobi stock exchange. The questionnaires were directed to the heads of human resources departments without wider stakeholders' involvement. This study was based on mixed industry on the stock exchange and comparing the ROA and ROE of different companies with different accounting year ends would ignore the uniqueness of each company and size. The quality of the financial statements may be challenging to validate.

Asare et al. (2013) studied exploring the disclosure of intellectual capital based on human asset value accounting in listed companies in Ghana. There is a lack of guidelines and regulations requiring companies in Ghana to adhere to disclosing intellectual capital in their annual report. However, the disclosure of intellectual capital in Ghana is improving but at a relatively low rate. This study focused on listed companies using content analysis. It was not specific to any industry in Ghana. This study looked at human asset value accounting ignoring other categories of intellectual capital. This research used content analysis as well and focused on listed insurance companies.

Table 2.8 below shows the extent to which Intellectual capital has been studied in some developing countries in Africa.

Country /Industry		Study/Method	Findings/results	References
Southern African Development Community (SADC) Unlisted Insurance companies		12 years study of 13 of 16 countries. Intellectual capital (IC) and financial performance	Significant direct relationship with return on assets (ROA). IC and financial performance of insurance companies	Odunayo & Msomi (2021)
GHANA Listed and unlisted insurance companies		Intellectual Capital and Profitability in an emerging insurance market	Non-life insurance companies had high IC performance as compared with life insurance with human capital as the main driver	Asare et al. (2017)
CAMEROON Financial institutions in Yaounde (10 insurance companies included)		Impact of intellectual capital (IC) efficiency on financial institutions performance.	Financial institutions depended much on Return On Capital Employed (ROCE) with positive profitability but not human and structural capital	Menjo et al. (2014)
KENYA Listed mixed companies on the Nairobi securities exchange		Intellectual capital, corporate reputation and culture and performance	A significant relationship between IC and non-financial and financial performance using	Kariuki (2014)

	using a resource-based view	Return On Assets (ROA) but not with return on equity and dividend yield
SOUTH AFRICA Mixed listed companies on the Johannesburg stock exchange	Intellectual capital, measurement, recognition and reporting regulations on accounting theory	Relationship between performance intellectual capital and profitability on productivity and market informative with variations Cronje & Moolman (2013)
GHANA Listed companies Stock exchange	Exploring the disclosure of intellectual capital based on human asset value accounting	Lack of guidelines and regulations for disclosure of intellectual capital in annual reports Asare et al. (2013)

**Table 2.8 – Some Intellectual capital studies of other developing African countries**

### 2.10.2 Some Intellectual Capital Studies in Developed Countries

Below are some of the studies in intellectual capital where this has been practised and reported by companies. This is to demonstrate the existence of intellectual capital practice in developed economies where in some cases it has been made regulatory and mandatory to report on it locally.

Some studies were conducted in the UK, such as Duff (2018), Fort et al. (2017) in Italy, Goebel (2015) in Germany, Berezinets et al. (2016) in Russia, Brennan (2001) in Ireland, Kasarova et al. (2010) in Bulgaria, Parshakov & Shakina (2020) in America, Firmancar et al. (2019) in Indonesia, and Sharma and Dharmi (2017) in India.

Duff (2018) studied the disclosure of intellectual capital with evidence from accounting firms in the UK using content analysis of annual reports and corporate social reporting of twenty professional accountancy firms. The study examined the extent and quality of voluntary intellectual capital disclosure by professional accountancy firms aimed at closing the gap between the reported value of tangible assets and the unreported value of intellectual capital. The study showed that intellectual

capital disclosure varies across different forms of reports frequently reported as being human capital and the least reported internal capital. Accountancy firms used in this study are not listed on the stock exchange and their financial statements are not audited. There are no external investors in the firms of accountancy. This research used content analysis as one of the data sources as did Duff's studies, but this research focused on listed insurance companies.

According to Forte et al. (2017), the study aims to examine the association between intellectual capital value with regards to the current market value to the net book value proportion, and possible main elements of Intellectual capital value such as Non - tangible assets and various competing factors.

140 Italian organisations listed on the Milan stock exchange were studied over four years (2009 to 2013). A universal method used was market-based, the connection between Intellectual Capital value and an appropriate basis from the existing works of intangible assets is assessed. Also, four strength and stress tests are undertaken. The outcome indicated that Intangible assets, profitability, influence, business type, accountant and auditor type, and private ownership positively affect Intellectual capital value. It also concludes that the magnitude and period adversely affected intellectual capital value. Furthermore, the results of the stoutness assessments indicate that all organisations and not just knowledge-based companies and/or business industries managed knowledge well. This confirms the researcher's earlier statement that various intellectual capital components do affect company value positively and negatively.

Goebel's 2015 study investigated the relationships of company characteristics to intellectual capital (IC) reporting in a mandatory management report in Germany, which is regulated by Germany Accounting Standards (GAS 15). According to Viktoria Goebel (2015 pg.702), "this standard is part of the German reporting regulation for listed companies with limited liability and requires additional narrative information on corporate performance". It is interesting to know that Germany's accounting body makes it mandatory for companies to report their Intellectual capital in their management report. Following the relevant regulation in Germany, Intellectual capital components of the mandatory

management report are classified as partly required, partly recommended and partially voluntary. The researcher comments that intellectual capital in Germany is guided by local accounting standards in most developed economies whilst there are no such local guidelines in developing countries. However, this research is focusing on the system that exists in Nigeria.

Berezinets et al. (2016); this research was carried out to define the contribution of intellectual capital (IC) of the board of directors (BDs) in generating Intellectual Capital of a company, as well as two of its major elements: human capital (knowledge, skills, and experience of board members, etc.), and social capital (relationships and networking opportunities of board members), and to clarify the relationship between these elements and financial performance indicators of companies.

According to Berezinets et al. (2016; p.644), “The study showed that the results obtained about the Russian market are consistent with the literature and that there was a difference in the market capitalisation of those Russian companies that had government representatives on their board and those that did not. At the same time, we could not find any differences in the results of the performance indicator ROA within the same sample of Russian companies.” The main finding is that the study confirmed that Intellectual capital can be created outside and within materials that do not belong to the company. It is concluded that the board of directors acts as a source of intellectual capital of a company.

Brennan (2001) examined the variances between the market valuation and book valuation of eleven Irish information-based companies and the Intellectual Capital information revealed in their 1999 annual reports. The study established that the market valuation of 9 of the companies meaningfully surpassed their book value. Nevertheless, the same companies indicated slow improvement in terms of the number of Intellectual Capital recognitions and disclosures. The conclusion was that Irish companies displayed less interest in recognising Intellectual Capital information, and the gap between the two values (market and book) was unable to be explained by the non-recognition of Intellectual Capital material.

Kasarova et al. (2010) studied intellectual capital and value creation using evidence from listed manufacturing companies at the Bulgarian Stock Exchange (BSE). Measurements criteria of intellectual capital indicators were utilised noting the lack of a valuation model for intellectual capital in the context of emerging markets such as Bulgaria. Their results showed that intellectual capital played an important role in the value creation processes in some companies listed at BSE. This research will focus on insurance as against manufacturing companies used in Kasarova et al.'s study.

Parshakov & Shakina (2020) employed the econometric strategy concept and legitimacy theory in their study titled "Do companies disclose intellectual capital in their annual reports?". This was an exploratory content analysis research and concluded that companies do not systematically and extensively disclose intellectual capital in their annual corporate reports in the USA. The narrative form of intellectual capital recognition validates legitimacy theory but not the positive accounting theory of large companies in America. This study utilised the legitimacy theory which is one of the theories considered in this research. This study relates to this research because it is equally exploratory using content analysis but in a developing economy.

The relevance of the above to this research is that it points out the influence and impact of investors' perception reviewing the financial statements recognition of intellectual capital and making investment decisions regarding new value added of the listed companies. This also informs the fifth hypothesis of this research as stated below. It was with regard to this argument that Professor Keith Bradley in his observations of the US stock market (cited in Edvinsson and Malone, 1997, p.5), commented that:

"Over the past twenty years, there has been a significant widening of the gap between the values of the enterprises stated in corporate balance sheets and investors' assessment of those values. [The median market-to-book value ratio of US public corporations over the twenty years between 1973 to 1993 increased from 0.82 to 1.692]. The gap in 1992 indicates that roughly forty per cent of the market value of the median US public corporation was missing from the balance sheet. For

knowledge-intensive corporations, the percentage of assets missing from the balance sheet is over one hundred per cent. The findings above have been part of the reason for predicting a new type of corporate disclosure capable of capturing the real value of companies.” The researcher comments that discounting this obligation would contribute to the growing unimportance to users of traditional corporate reporting instead of germane information on Intellectual Capital that augments the company’s valuation and appeals to investors’ value perception of the organisation. This determination gives the occasion for investors to gain an impression of these companies’ future growth potential. The increase of information about Intellectual Capital elements contributes to the reduction of uncertainty, which is reflected in lower risk premiums and thereby results in a more accurate valuation of a company (Marr, 2008; Zambon, 2020).

The researcher, therefore, proposes the fifth hypothesis as follows:

*H5: Intellectual Capital recognition is perceived as relevant from a capital market valuation perspective.*

Firmancar et al. (2019) studied the effect of Intellectual Capital on stock return with economic-added values intervening variables in banking companies listed in the stock exchange in Indonesia for the period 2011 to 2016 using the value-added intellectual capital coefficient (VAIC) economic value model. They concluded that overall intellectual capital influence as stock returns of banking companies listed on the stock exchange. This proved that intellectual capital which is regarded by both the investor and is able to manage and contributed to the company’s profits increased stock returns.

Sharma and Dharmi (2017) examined the status and trends of Intellectual Capital disclosures in an emerging economy in India focusing on different industries such as pharmaceutical, basic metal, industrial manufacturing, energy, financial services and information technology covering ten years for all twenty firms of each of the six industries. This study utilised the financial statements content analysis using keywords relating to intellectual capital and intangible assets. The findings were that



the sector specificity trend in recognition of components of intellectual capital was exhibited in companies in India. It was concluded that Indian companies would increase the use of qualitative recognition and disclosures to communicate with stakeholders.

## **2.11 Limitations of Past Research on Intellectual Capital Recognition**

Based on the reviews of the submissions of content analysis in research of Intellectual Capital recognition in numerous business documentations, this stage indicated the limitations of earlier studies explicitly concerning the period coverage of the annual reports being analysed.

The periods usually were narrow, characteristically between two and five years, with the majority of studies focused on the period of the mid-1990s forward. It was thought out that Intellectual Capital recognition is somewhat responding to the conversion from an old-style to an information economy, the time coverage of annual reports used in earlier studies is outmoded to gain an understanding of the present inclinations and changes in Intellectual Capital recognition content as practised in developed economies. The practice of Intellectual capital essentials being recognised and disclosed in financial statements and annual reports in developed countries is absent in developing countries such as Nigeria. (Amico,2012; Traeger, 2021). This is a gap being filled by this research.

There have been fluctuations in prominence among Intellectual Capital components over time, for example, information about the brand became progressively prevalent in the years 2000s. The study ascertained that narrative and description in companies' annual reports replicated the broader changes in the economic context in the UK (Ekins, 2019).

An additional gap that was identified in earlier Intellectual Capital recognition studies is the inadequacy of non-quantification features of data recognised. The essential focus on capturing Intellectual Capital elements was based on volume rather than its qualitative features (IFRS Foundation, 2018). This research focuses more on qualitative elements of Intellectual capital with regard to Abuja and Lagos listed insurance companies.

Most of the past studies have focused on different industries while this research is concerned specifically with listed insurance companies in Abuja and Lagos (Akinlabi et al., 2011; Epetimehin and Ekundayo, 2011; Uadiale & Uwuigbe, 2011, Anuonye, 2015, 2016; Kori, 2017; Kurfi et al., 2017). This research will explore the limitations as stated above of past intellectual capital studies in developed countries.

## **2.12 Intellectual Capital and Intangible Assets**

The terms Intellectual capital and intangible assets are occasionally used interchangeably. However, financial reporting refers only to those intangible assets that are recognised by the International Accounting Standards Board (IASB), with these assets forming part of intellectual capital.

Intellectual Capital of a business is defined simply, in theory, as the value of the intangible assets of the business. As far as theory goes, this definition is entirely correct. However, it is in practice that this definition falls short. The latest accounting standards require every business to report the value of its intangible assets on its balance sheet. However, it is the value of the intangible assets as it is recognised under the accounting standards that is reported which is the reason why there remains a wide gap between the actual value of intangible assets in the business and what is reported in the balance sheet. International Financial Reporting Standard (IFRS) accounting standards are conservative by nature and define strict criteria for what can and cannot be considered as an intangible asset in the first place.

The two acid tests in this regard are: first, the intangible asset should be identifiable, second, the economic benefits arising from the intangible asset should be reliably measurable.

It is due to this strictness that businesses act ultra-conservatively when reporting the value of their intangible assets. Let's take an example to understand this better and its impact on investors' assessment of the business, which is the crux of this research.

The discussion on the presence of Intellectual Capital in businesses was primarily explained by way of the recognition and description of the goodwill that is part of a business (Seetharaman, Balachandran & Saravanan, 2002, p.131; Minovski, 2019; Murphy, 2022). The IASB (2011: A941-A943, A152), though, makes a difference between the goodwill bought in a business combination and inside generated goodwill. The argument in favour of recognising Intellectual Capital in financial statements is based on the fact that the value of Intellectual Capital is yet unreported to the users of company information (Rodov & Leliaert, 2002: p.323; Mangena, 2010, Cronje, 2013). The non-recognition of these assets in the financial statements, therefore, creates a lacuna between reported accounting and capital market values. (Forte et al., 2019, p.589)

According to Swart (2006, p.137), “Unlike other assets, the value of internally generated goodwill is created over a period through a series of activities and it is not possible to link this value to a specific transaction.” Intellectual Capital consequently forms part of this inside-produced value of the business and hence should be reported to capital providers and users of financial information. It emerged from the literature review that the argument in favour of recognising intellectual assets in financial reporting involves recognising that the true value of a company may be assessed only by taking intellectual capital into account (Marr, Schiuma & Neely, 2004, p.553; Marr, 2008; Dumay, 2020; Zambon, 2020). It has now clear from the above argument that there is a need and drive to initiate new measures and ways to report on Intellectual Capital, to complement financial reporting. Kukec (2007, p.28) refers to this kind of reporting as broad-based business reporting. Broad-based reporting provides investors and other stakeholders with both mandatory and contextual information and assists them to make informed decisions. (IFRS IAS Plus, 2018)

### **2.13 Attributes of Intellectual Capital Value-Added Components**

Table 2.9 below provides a listing of the attributes used in the content analysis of the annual reports which signify various Value Added elements of Intellectual Capital.

<b>Structural Capital</b>	<b>Relational Capital</b>	<b>Human Capital</b>
<b>Intellectual property</b>	Brands	Know-how
<b>Patents</b>	Customers' loyalty	Education
<b>Copyrights</b>	Distribution channels	Employees
<b>Trademarks</b>	Business collaborations	Work-related knowledge
<b>Infrastructure assets</b>	Research collaborations	Work-related experience
<b>Corporate culture</b>	Financial contacts	Vocational qualifications
<b>Management process</b>	Licensing agreements	Flexibility
<b>Information systems</b>	Franchising agreements	Formal training
<b>Networking systems</b>	Company image	Incentives and remuneration
<b>Research projects</b>	Suppliers	Productivity
<b>Corporate know-how</b>	Competitors	Teamwork capacity and spirit
<b>Management Philosophy</b>	Investors	Occupational health and safety
	Community involvement	Initiative, motivation, dedication
	Environmental activities	Entrepreneurial spirit, innovativeness
		Proactive and reactive abilities
		Changeability

**Table 2.9: The intellectual capital classification framework**

Source: Oliveria et al. (2006, p.101) adapted

Oliveria et al., (2006, p.33) stretched the framework to comprise additional items to renaming the categories. Bontis (2003) developed a framework that was used in his study of IC disclosure in Canadian companies. This framework consisted of 39 attributes and its difference was more descriptive in terms of the attributes. This framework was adopted and replicated by Vergauwen and van Alen (2005); Shen and Pantic, (2012) in The Netherlands, France and Germany.

## **2.14 International Financial Reporting Standard (IFRS) on Insurance Business**

The objective of the IFRS is to enhance the relevance, reliability and comparability of the information that an entity provides in its financial statements as a benchmark with other business entities globally.

IFRS 7 (Financial Instrument Disclosures), which was an amendment of IFRS 4 (Insurance Contracts), requires the disclosure of the significance of financial instruments for an entity's financial position and performance. It also requires the disclosure of qualitative and quantitative information about exposure to risks arising from financial instruments, including specified minimum disclosures about credit risk, liquidity risk and market risk, the qualitative disclosures describe management's objectives, policies and processes for managing those risks.

The quantitative disclosures provide information about the extent to which the entity is exposed to risk, based on information provided internally to the entity's key management personnel. However, Onafalajo, Eke and Akinlabi, (2011) affirmed that the Nigerian financial environment, especially for the insurance sector, faces great challenges in the adoption of IFRS.

This challenge is manifested in the need to prepare the accounts with human qualitative values which brings about a conflict of interest between the directors and the auditors. Whereas the directors' emphasis is on wealth maximisation, the auditors emphasise performance measurement and regulatory framework.

## **2.15 Performance reporting**

Performance is a notable action of achievement. It is the measurement of what has been achieved by a company over time. Performance is an important outcome of the efforts of individuals or groups which is very essential to the growth of the organisation. It is the ability of an organisation to gain and manage resources effectively (Carpi et al., 2017; CIPD, 2022).

## **2.16 Performance Model as categorised by Hansen & Mowen (2005)**

Hansen & Mowen (2005) classified performance into financial and non-financial performance. Financial performance refers to the growth in profitability which can be measured through positive returns from business operations. Non-financial performance on the other hand refers to the Productivity and Market value of shares of the organisation.

### **2.16.1 Key performance indicators**

Financial performance has some advantages over other forms of performance. These include easiness of calculation and commonly agreeable definitions. Economic profit expresses the residual income minus profit above a normal rate of return (Zaratiegui, 2002, p.2). A real extent of the intellectual capital value can be done by proposing a quantity to weigh the efficacy of the value added as a result of the company's intellectual capability to Value Added Intellectual Capital (Firmansari et al. 2019, p.34)

The main components of VAIC can be seen from the company's resources, ie Value Added Capital Employed (VACA), Value Added Human Capital (VAHU) and Value Added Structural Capital (STVA). The relationship between VAIC with financial performance has been demonstrated empirically by researchers both in Indonesia and abroad (Firmansari et al. 2019, p.35).

Financial performance in this research shall focus on the following:

### **2.16.2 Economic Value Added (EVA)**

EVA offers an appraisal of organisations as shown in an increase in enterprise value over a certain period. The EVA model is very prevalent and is used to evaluate the data introduced in the insurance companies' financial statements. According to the Stern and Stewart concept, “EVA is calculated as the difference between the Net operating profit after-tax (NOPAT) and the opportunity cost of capital employed (CE\*WACC)” (Stern, 2001 as cited by Molodchik et al, 2012, p. 4). The ratio is used to measure the financial performance of companies one of which uses the ratio of EVA (Economic Value Added). EVA is a financial performance measure that is considered investor expectations for EVA not only looking at stock returns but also considering the level of the company's ratio (Harris et al, 2009).

### **2.16.3 Market Value Added (MVA)**

Market value added (MVA) is related to the long-term indicators of Intellectual Capital outcomes. MVA approximates a spread between an enterprise value and a book value of assets. (Shiri et al., 2012; Chen, 2021)

### **2.16.4 Future Growth Value (FGV)**

Another indicator which is closely connected with economic profit is the value of future growth (FGV).

FGV assesses a share of market value attributed to EVA growth. According to Stern Stewart (2013), FGV can be driven by market expectations of productivity improvements, organic growth and value-creating acquisitions. Companies can calibrate their incentive plan to performance targets tied to the annual EVA growth implied by FGV. Furthermore, the FGV component can be a useful tool in benchmarking against the “growth plan” of competitors and evaluating investors’ assessments of the wealth-creation potential of new strategies and opportunities (Stern et al. 2012). According to Burgman and Roos (2004), A share of the future growth value in several companies’ values grow

annually and in some industries is associated with innovative product implementation. This approach suggests that innovative behaviour and investment policy focused on intellectual capital accumulation have a higher potential for future growth. In conclusion, it is stated that three value-added indicators are the most widespread and applicable for the intellectual capital outcomes analysis: EVA, MVA and FGV. (Molodchik et al., 2012 and Shakina, 2013). The EVA indicator is related to the immediate return on intellectual capital investments. The MVA and FGV indicators are associated with the long term; however, they are different. MVA reflects the intrinsic value of the intellectual capital while FGV is associated with potential value growth indicated by the market( O'Byrne, 2017).

#### **2.16.5 Return on Equity (ROE)**

This is the net profit that is returned to the ordinary shareholders after business operations. The higher the return on equity, the more profitable the company has become and the possibility of enhanced dividends to shareholders. Pandey, (2010) reiterates that the ratio of net profit to owners' equity reflects the extent to which the business objective has been accomplished. ROE is calculated as Profit before Tax (PBT) divided by the number of ordinary shares in issue at the close of business on a given date. Some scholars argue that the return on equity should be expressed as a relationship between profit after tax and the total number of equities. Their argument is based on the fact that any earnings attributable to ordinary shareholders should be regarded as net earnings. On the other hand, it is argued that return on equity based on profit before tax represents a more accurate picture of the stewardship of the managers of the company's wealth since the tax liability is an extraneous or uncontrollable factor to the managers. Shareholders' equity (Pandey, 2010; Nanavati, 2013) may include ordinary shares, share premiums and reserves.

The shareholders' earnings (Pandey, 2010) may be retained in the business or distributed to the shareholders.



### **2.16.6 Return on Assets (ROA)**

The return on assets is a measurement of the earnings attributable to each Naira of the asset acquired in the organisation during a given period.

This ratio should usually be used to measure the effective use of resources in the organisation.

The return on assets (ROA) is calculated by dividing the net income of a company by its total assets. ROA is measured as net income or profit before interest and tax divided by the total assets of the company. Profit before tax is best suited for this measurement because taxes are not controllable by management and since firms' opportunities for availing tax incentives differ, it may be more prudent to use profit before tax to measure ROA (Pandey, 2010; Birken and Curry, 2022) An increasing ROA is an indication of improving profitability and improving the financial performance of a company, (Flamholtz, 1999; Hagel, Brown & Davison, 2009; Schmidt, 2023).

### **2.16.7 Return on Capital Employed (ROCE)**

Return on capital employed is a measure of profitability which represents the earnings relative to the financial and physical capital invested in the organisation. It is calculated as Profit before tax (PBT) divided by Capital employed. Return on capital employed (de Pablos, 2003 & Bontis, 2004; Pandey, 2010; Niresh, 2012) can also be referred to as Return on Assets (ROA). Thus, in calculating the ROCE, two main measurement features stand out, namely:

- (i) Profit before Tax (PBT). This is the net profit of the organisation before interest and tax. It is sometimes referred to as earnings before interest and tax (EBIT). This is the return that the company made in relation to its operations for the year under review (Li et al, 2014).
- (ii) Capital Employed (CE) represents the amount of funds used by the company for the generation of wealth. In practical terms, capital employed should be equivalent to the net assets or total assets less current liabilities (Hayes, 2022).

## **2.17 Gaps and Appraisals in Literature**

### **2.17.1 Appraisals**

It is noteworthy to observe the following as being relevant in the review of existing literature on the subject:

- a) Intellectual Capital can be measured.
- b) Measurement of intellectual Capital will facilitate the inclusion of Intellectual Capital as an asset in the balance sheet.
- c) Capitalisation of intangible assets will result in an increase in shareholders' funds in the balance sheet as well as the increase in profitability in the income statement.
- d) Profitability (financial performance) can be measured.
- e) An increase in shareholders' funds and financial returns are the hallmarks of business investment.
- f) The workforce is psychologically motivated when their value is recognised and accounted for.
- g) Intellectual asset accounting can be globally standardised.
- h) Further studies will be necessary for the area of Intellectual Capital measurement for the individual worker as is obtainable in the professional football industry.

### **2.17.2 Gaps**

Notwithstanding the diverse works and projects on Intellectual Capital, it has been noted that some gaps are yet to be uncovered and still fully explored in the quest and research of Intellectual Capital in the area of knowledge, theories, evaluation and measurement both in developing countries such as in Nigeria and developed countries (Zambon, 2020).

Scholars have indeed written and commented on Intellectual Capital from various countries but limited studies have been done on the relevance of Intellectual Capital recognition in the financial statements of listed insurance companies specifically in the Abuja and Lagos stock exchanges of

Nigeria (Nwonyuku, 2016; Ewereoke, 2017; Temile, 2018; Olarewaju, 2021). This is the fundamental lacuna this research wishes to fill.

Several scholars in Nigeria, (Uadiale & Uwauigbe 2011; Onafalajo, Eke & Akinlabi 2011; Epetimehin & Ekundayo 2011; Suraj & Bontis 2012; Anuonye, 2015, 2016; Kurfi et al, 2017; Kori 2017; Akpomudje, 2017) have at one time or the other written on Intellectual Capital relating to listed and unlisted Insurance companies and other industries in Nigeria but such works were not related to intellectual capital recognition in the financial statements of listed insurance companies in Abuja and Lagos cities of Nigeria. Therefore, this research has provided contributions to the body of knowledge in the area of intellectual capital in the context of the value creation perceptives with specific importance on the Abuja and Lagos stock exchanges of Nigeria's Listed Insurance market. The identified gaps can be summarised below:

This research would be looking into more of the value creation point of view and focusing on insurance companies listed on the Abuja and Lagos stock exchanges with financial statements audited by audit firms. This is because of the integrity, reliability and comparability of the financial information. This research covers a period of six years from 2015 to 2020 and includes the year 2018 and 2019 when the recapitalisation of Insurance companies together with the Tier based minimum solvency capital (TBMSC) regime was introduced in the insurance industry in Nigeria. This was followed by the Risk-based capital (RBC) regime and then Minimum paid-up capital (MPC). Most studies of intellectual capital in Nigeria covered one year to five years in Nigeria and were conducted pre-recapitalisation and TBMSC, RBC, and MPC whilst this research covers six years of listed insurance companies which include 2018 and 2019, the year of varied recapitalisation introduced by NAICOM. The period covered 2020, the year of the unprecedented global Covid 19 pandemic. This research extended the coverage period of Intellectual capital research in Nigeria by one year as suggested for studies by Anuonye (2014, p.221). There is little or no known study carried out on intellectual capital since the implementation of the recapitalisation and operation of the Minimum Paid up capital of the insurance companies in Nigeria. This is limited research post-International

Financial reporting standard (IFRS) implementation by listed insurance companies in Nigeria. These are lacunas seeking to be filled by this research.

The inclusion of business recipe (strategic) capital as a category of Intellectual Capital. This is the fourth category of intellectual capital. There is little or no known study of the Intellectual Capital of listed insurance companies in Nigeria that has indicated Business recipe (Strategic capital) as one of the categories (Adam, 2010). This category enhances the value creation capability by its connectivity with the other categories to create wealth for the stakeholders. This is a knowledge gap seeking to be filled by this research.

These categories have had a strong influence on later studies and have been adopted in some studies of Intellectual Capital recognition (Adam, 2010). Therefore, these four categories have been adopted in this research to demonstrate comparability between modern advocated Intellectual Capital research. The researcher opined that some studies as shown above have classified intellectual capital components (table 2.2) as Intellectual Capital categories (table 2.1). There is limited study of the intellectual capital of listed insurance companies that have adopted the Business recipe (Strategic) capital category in Nigeria, especially in Abuja and Lagos. This is one of the gaps this research has to fill.

This research shall look into stakeholders' perceptive on the value creation of listed insurance companies. Only secondary data from the 2013 fact book of the Nigeria stock exchange was used in some Intellectual Capital studies in Nigeria. This research would adopt primary data collection such as interviews and questionnaire surveys together with secondary data such as annual reports of insurance companies.

This study used audited financial statements with Intellectual Capital components of listed companies from the insurance industry in Nigeria's stock exchange.

The relevance of all the above studies to this research is that they inform the foundational base that intellectual capital studies have been conducted in Nigeria and its recognition in the financial statements is non-existent.

A study of Intellectual Capital exploratory in listed insurance companies exists but this research is equally exploratory using multiple data sources in a developing economy.

The practice of Intellectual Capital elements being recognised and disclosed in financial statements in developed countries has not been seen in developing countries such as Nigeria. This is a gap being filled by this research. (Duho, 2022)

A further gap that was identified in earlier Intellectual Capital recognition studies is the non-existence of satisfactory emphasis on qualitative features of information recognised. The essential focus of the information content was based on volume instead of its qualitative characteristics. This research focused more on qualitative elements of Intellectual Capital with regard to Abuja and Lagos listed insurance companies.

Most of the past studies focused on different industries while this research is concerned with listed insurance companies in Abuja and Lagos stock exchanges.

A close study of Intellectual Capital in Nigeria was about the impact of Intellectual Capital on insurance companies in Nigeria, whilst this research focuses on the relevance of Intellectual Capital in the financial statements of listed insurance companies in Abuja and Lagos cities of Nigeria.

The researcher argues that this would probably be the first research on Intellectual Capital on listed insurance companies focusing on Abuja and Lagos stock exchanges. Since the new capital regime was introduced when declining public confidence in the insurance sector for the last 10 years following a further devaluation of the Nigerian currency - the Naira (Chete, 2011; CBN, 2017).

The research period covered six years. This research covered the years when the insurance industry in Nigeria had undergone recapitalisation and transformation including stability in the stock market

business. This is the period that exhibits and indicates the normality of business at the stock market trading. This period includes the Covid-19 Pandemic year of 2020).

This research would probably be one of the first to utilise the multiple linear models of regression analysis in the study of intellectual capital in Abuja and Lagos with a special focus on value creation perspective using Return of Equity (ROE), Economic Value Added (EVA), Market Value Added (MVA) and Future Growth Value (FGV) evaluation models adopted by Molodchik et al (2012, p.4). This is different from other models used in Nigeria. The earnings per share (EPS) model was used in Nigeria by Anuonye, (2015) and the Value Added Intellectual Coefficient model was used in Ghana by Asare et al. (2017). Though, Tobin's Q and multi-regression analysis model was used in Bahrain, UAE, Jordan and Egypt by Al-Sartawi et al., (2019) but not in Nigeria.

The following are unique to this research:

1. Intellectual Capital existence in listed insurance companies in Abuja and Lagos
2. All are insurance business
3. Period covered: The year 2015 to 2020, most up to date in Nigeria (6 years)
4. Value creation (Investors) perspectives
5. Methodology: mixed method (Interview, questionnaire and content analysis)
6. Only audited financial statements and annual reports by insurance companies in Nigeria.
7. Triangulation between multiple source data collection.
8. The inclusion of Business recipe (Strategic capital) fourth Intellectual Capital category

The following gaps, which are peculiar to the financial statements of the listed insurance industry in Abuja and Lagos stock exchanges shall consequently be investigated:

- 1) Result of Intellectual Capital on the Value Added Relational Capital (VARE) of insurance firms.
- 2) Result of Value Added human capital (VAHU) on Intellectual Capital

- 3) Result of Value Added of Structural capital value added (VAST) on Intellectual Capital
- 4) Result of Value Added Business Recipe (VABU) on Intellectual capital
- 5) Result of Intellectual Capital on the Return on Equity (ROE) of insurance companies.
- 6) Impact of Intellectual capital on the Return on Assets (ROA) of insurance companies
- 7) Impact of Intellectual Capital on the Economic value added (EVA) of insurance companies.
- 8) Effect of Intellectual Capital on the Return on Capital Employed (ROCE) of insurance firms.

## 2.18 Summary of Research Gap

This presents the summary of the research gaps shown in Table 2.10 below:

No	Gap identified	References
1	Period of Research coverage 6 years – 1 <sup>st</sup> January 2015 to 31 December 2020	Researcher, 2022
2	Novel -Includes 2018 and 2019, years of Insurance recapitalisation of Insurance companies' capital and Tier Based Minimum Solvency Capital, (TBMSC)	TBMSC, Risk-based capital and Minimum paid up capital (NAICOM, 2019)
3	First post-2012 IFRS introduction in Nigeria Intellectual capital research of listed insurance companies	Researcher, 2022
4	The fourth category of intellectual capital- Business Recipe (Strategic capital) Novel in listed insurance companies in Abuja and Lagos	Mary Adams – connecting the 3 other Intellectual Capital category
5	Focus on Abuja and Lagos listed insurance companies	Researcher, 2022

6	Novel Mixed method Intellectual Capital research in listed Insurance companies in Nigeria	Quantitative and Qualitative
7	Multiple data sources, Questionnaires, Interviews and documentation, NVivo and Word Cloud	
	Data analysis tool- Word Cloud -Novel in listed insurance companies in Abuja and Lagos	Researcher, 2022
8	Novel triangulation between data sources from listed insurance companies	Researcher, 2022
9	Multiple Linear Regression Analysis	
10	Independent variable -VARE, VAHU, VAST, VABU Dependent variable- EVA, MVA, FGV	Value Added effect on the independent variable. First in Nigeria Economic Value Added, Market Value Added, Future Growth Value

Table 2.10 Summary of Research Gap

## 2.19 Chapter Summary

Intellectual Capital has been diversely defined and described by numerous scholars. Yet there is no unified agreement on a universal definition. The groups of Intellectual Capital applicable varies across many types of research but acceptable generally, it is comprising of Relational Capital, Structural Capital, Human Capital and Business recipe (Strategic). The absence of mandatory regulations for Intellectual Capital recognition in financial statements has caused several countries to develop their own Intellectual Capital recognition systems. The recognition of Intellectual Capital was prepared using diverse methods based on a company's creativity and self-purpose either in the forms of pure narrations or utilising quantitative indicators. Researching into exploring the relevance of Intellectual Capital in the financial and annual reports of listed Insurance companies in Abuja and



Lagos focused on the value-adding capability of the various categories of Intellectual Capital within the listed insurance industry.

The rationales for the recognition of Intellectual Capital data are based on two explanations: (i) the significance of Intellectual Capital in generating value for investors and prospective stake seekers and, (ii) the failed position of outdated financial statements recognition to deal with Intellectual Capital. Due to this situation, new business reporting models with conveying capability of Intellectual Capital information were used to address the deficits in traditional financial reporting. Three general rationales for disclosing Intellectual Capital were identified. Firstly, to decrease Intellectual Capital data asymmetries among companies and investors which may lead to a lower cost of capital. Secondly, Intellectual Capital information recognised assisted in growing the relevance of financial annual reporting in the sense of enabling the process of share valuation. The third benefit relates to internal management information determinations, especially in the area of governing and directing the business performance of insurance activities.

Enormous consideration was paid to the multi-disciplinary research of Intellectual Capital, investigating the practice of Intellectual Capital recognition in organisations' annual reports using content analysis has been productive. Many such studies were conducted in many countries, looking to ascertain the type and extent of recognition of Intellectual Capital in numerous corporate reporting. The revolution time frame from the old style to the information economy is considered to be an excellent motivation for examining Intellectual Capital because it permits a deeper understanding of how reporting features and characteristics, especially concerning exploring the relevance of Intellectual Capital recognition in the books of listed insurance companies in Abuja and Lagos.

The lack of available studies has combined reporting together with theoretical frameworks in interpreting Intellectual Capital recognition and reporting led this research to include a couple of theories. It is assumed that the results and findings of this research would be interpreted adequately and appropriately in the light of these theories rather than individually. An additional gap includes

the absence of emphasis on the cross-examination of qualitative features of Intellectual Capital data. Chapter three is the next stage of this research. The chapter contains the framework of the research conceptualisation.

## **CHAPTER THREE**

### **THEORETICAL AND CONCEPTUAL FRAMEWORKS**

#### **3.0 Introduction**

The underpinning theory that has been identified in this research is the resource-based view (RBV) of the firm (D'Oria, 2021; Guesalaga, 2018; Burton, 2014; Barney, 2011). The resource-based framework was used together with the other theories mentioned below to form the foundation of the theoretical and conceptual frameworks of this research.

#### **3.1 Resource-based View Theory**

The resource-based view (RBV) of the firm conceptualises firms as bundles of resources that are heterogeneously distributed across firms (Kozlenkova, 2013; Penrose 1959). These resources cannot be transferred among firms without cost, so a firm's resources and differences in them, will persist over time. The ideas relating to the role of resources and capabilities as the principal basis for organisational performance coalesced into what has become known as the resource-based view of the firm (Mikalef, 2021; Mossel, 2018; Ferlie, 2015).

Despite the views on the origin of the resource-based view and counter-arguments, this approach has become a major perspective for evaluating an organisation's performance in terms of its competitive advantage. The resource-based view is a theory that asserts that the firm is a pool of resources (Holdford, 2018; Edwards, 2014; Barney 1991, Wernerfelt 1984), capabilities (Seddighi, 2020, 2019; Guesalaga, 2018) and competencies (Prahalad and Hamel, 2020) and that these resources, capabilities and competencies are the primary determinants of its performance. It is important to distinguish between resources and capabilities of the firm. Resources are the productive assets of the firm, such as land and capital, and individually; they do not confer a competitive advantage. Capabilities on the

other hand refer to the firm's capacity to deploy and combine resources using organisational processes to achieve a desired end (Jurevicius, 2023; Teece, 1997; Grant, 2005). Capabilities are information-based tangible or intangible processes that are firm-specific and developed over time through complex interactions among the firm's resources (Kamasak, 2017; Amit and Schoemaker, 1993). The resources of the firm can be classified as either tangible or intangible (Jancenelle, 2021; Barney, 2001a, Michalisin et al., 1997, Wernerfelt, 1984); physical and human tradable and non-tradable assets (Zhang, 2016; Lombardo, 2012; Ratnatunga, 2002), or strategic assets and non-strategic assets (Morgan and Brenner, 2023; Ansell and Bains, 2019; Meso and Smith, 2000).

According to the logic of the resource-based view, a firm will have a sustained competitive advantage if it owns and controls resources that are heterogeneous, immobile, imperfectly imitable and that have no strategically equivalent substitutes (Jurevicius, 2021; Wernerfelt, 1984; Peteraf, 1993; Barney, 1991). Homogenous and perfectly mobile resources can be purchased in the factor markets, but firms must combine these normal resources with intangible resources they have developed and made firm-specific to create strategic assets which will provide them with a competitive advantage (Ansell and Bains, 2019; Meso and Smith, 2000). The notion that firm-specific intangibles are the source of competitive advantage has been argued by Dierickx and Cool (1989). They challenge Barney's (1991) argument and emphasise that not all resources can be acquired in factor markets, but it is the non-tradable assets, such as corporate reputation which are highly firm-specific, that are the sources of competitive advantage. Barney, (2011), Teece, (1997) and Peteraf, (1993), assert that firms do not employ generic labour but people gifted with firm-specific skills and values. They rent generic labour in the market but the firm develops the specific skills, knowledge and values through on-the-job learning and training. A major contribution of the resource-based theory is its explicit recognition of the value of intangible organisational resources. Whether the construct used is a strategic asset, competency, capability or tradable asset, researchers have all concurred that the intangibles within these constructs are the major source of competitive advantage (Barney, 2011; Meso and Smith, 2000). The issue for accounting is about financial statements, in that many intangible resources

remain largely invisible. (Zambon, 2021; Ross, 2020; FRC, 2019). These intangible resources can be categorised as assets or skills. The assets include those items where the owner has legal protection and include such items as patents, copyrights, contracts and trade secrets. In other words, those items that meet the ownership, measurability and controllability criteria as provided for by the accounting standards. The skills, on the other hand, relate to employee know-how and culture which are often referred to as distinctive competencies. Several key organisational intangibles, such as brand names, in-house knowledge of technology, employment of skilled personnel, trade contracts, efficient procedures (CFI Team, 2023; IFRS, 2015; Wernerfelt, 1984), know-how (Teece, 1998), corporate culture (Barney, 2011), corporate reputation (Tejeras, 2022; Pires, 2018; Vergin and Qoronfleh, 1998) have been recognised as key drivers of superior performance. The contention of researchers, in the resource-based view framework, is that the resources, which provide the firm with a competitive advantage, must be rare, valuable, imperfectly imitable and non-substitutable. (Utami and Alamanos, 2023; Salazar, 2017). These are not very often the tangible items which appear in corporate reports.

Finally, as pointed out above, the literature on the resource-based view posits that a firm can have a competitive advantage if it has resources and capabilities that are rare, valuable, imperfectly imitable and non-substitutable. It has been argued that only intangible resources can meet the criteria proposed by Barney (2011, 1991), therefore leaving an intangible-based theory of the firm as the only viable interpretation of the resource-based view of the firm (McDougall, 2019; Audretsch, 2012; Sanchez et al 2000). On the other hand, some authors have contended that the resource-based view recognises but does not attempt to explain the nature of the isolating mechanisms that enable the firm to sustain its competitive advantage in light of changes within the environment (Jurevicius, 2023; Teece et al., 1997). The researcher posits that accounting for intellectual capital and its components may be able to contribute to this argument.

### **3.2 Other Supporting Theories of Intellectual Capital Recognition**

As Intellectual capital information recognition is sometimes displayed on an intentional basis relatively than on compulsion, other recognition reasons relative to jurisdictional implementation were the key drivers. In light of this, numerous important theoretical frameworks offered some clarifications. The usually applied principle to understand intentional business recognition is stakeholder theory (McAbee, 2022; Landau, 2019; Guthrie et al., 2006). Nonetheless, few of these theories were employed in Intellectual Capital recognition studies (Table 3.1). The shortfall motivated this research to contemplate some of these theories in light of its findings. No one theory appears convincing to use in the explanatory but some earlier studies incorporated more explanatory theories in shaping the understanding of Intellectual Capital recognition (Iser, 2013; Musgrave, 2016).

In like manner, this research took as its starting point, the assumption that the existing disclosure theories could not be taken separately in explaining the recognition of Intellectual capital development over time. Thus, this research has identified that at least, but not limited to, ten theories could be partial explanations of observed Intellectual capital recognition compoment: Stakeholder theory, Value theory, Asset basis theory, Signalling theory, Legitimacy theory, Agency theory, Impression management theory, Intellectual property theory, Decision usefulness theory, the political economy of accounting theory and Stewardship theory.

As Intellectual capital information recognition is sometimes displayed on an intentional basis relatively than on compulsion, other recognition reasons rather than jurisdictional execution are likely to be key drivers. In light of this, several prominent theoretical frameworks may offer some explanations. The most commonly applied in understanding voluntary corporate recognition are stakeholder theory (McAbee, 2022; Landau, 2019; Guthrie et al., 2006), Value theory, Asset basis theory, signalling theory (Mazzi, 2022; Zambon, 2020; Barker,2020; Sengupta, 1998; Healy and Palepu, 1993), legitimacy theory (Mousa and Hassan, 2015; Cormier and Gordon, 2001), agency

theory (Kyere, 2022; Nguyen,2020; Isnalita, 2018; Chow and Boren, 1987), impression management theory (Brennan and Merki-Davies, 2013; Rahman, 2012; Abhayawansa and Guthrie, 2012), decision usefulness theory (UNCTAD, 2021; Patelli and Pedrini, 2014; Whiting and Miller, 2008); and the political economy of accounting theory (Abeysekera and Guthrie, 2005).

### **3.2.1 Stakeholder Theory**

Stakeholder theory relates to the numerous stakeholders' endorsement of companies' activities. Some authors stated that: "according to stakeholder theory, an organisation's administration is probable to undertake activities believed to be important to their stakeholders and to report on those activities back to the stakeholders. Stakeholder theory highlights organisational accountability beyond simple economic and financial performance". (Simon, 2022; Findlay, 2017; Harrison, 2013; Guthrie et al. 2006, p.256;)

This research follows the above line of thought which elucidated the responsibility of companies and is not limited to the maximisation of the wealth of shareholders. Likewise, the organisation should be capable of meeting and accounting for the numerous goals of varied stakeholders. Gray et al. (1995b) stated that the continuous presence of organisations relies heavily on the approval of the stakeholders and the significance of their stakes in the business. Also the more the organisation must adapt their actions to comply with those stakeholders' demands (Walt, 2020). The class of stakeholders that can affect and be affected by an organisation's activities apart from shareholders are employees, customers, suppliers, lenders, the government and society ( Haynes, 2022). The organisation has a responsibility to deliver information on how its activities affected the stakeholders. The researcher opines that company activities that affect the stakeholders are linked to Intellectual capital in one way or another.

From a recognition viewpoint, for example, it specifies that less powerful stakeholders, which are occasionally smaller groups with lower accessibility to management, should likewise be afforded the same report as circulated to the more influential stakeholders during meetings at the latest (Whiting

and Miller, 2008). In the interim, instead of delivering accountability equally as suggested in the first branch, the optimistic branch attempts to recognise which class of stakeholders have an important and powerful influence over the survival of the organisation. (Day et al., 2009; Parmar et al.,2010)

### **3.2.2 Value Theory**

Value Theory is the study of the worth or value of ideas, things, people or anything else. Value theory aims to understand how, why and to what degree individual people or groups (organisations) value anything. This 'worth' can be viewed as economic value, but also as moral, ethical, legal or any other type of value. In the 1990s, accounting writers and scholars identified the growing importance of intellectual capital as a source of long-term value creation for organisations (Rieg, 2023; Shroeder, 2019; Schwartz, 2012; Roslender & Fincham, 2004 p.179). Today Value theory is focusing on assessing and estimating what people value and attempting to understand why they value it in the context of psychology, sociology, and economics.

The key argument is that value creation based on information resources, that is, Intellectual Capital, should come forward and the innovative value creation models should be connected with the understanding of the customers, what they required and the way value is created for them. When exceptionality followed by competitive advantage from a management standpoint, was found in the progress and execution of the business model, it then becomes natural to take this as a starting point for arranging recognition of Intellectual Capital. (Tefera, 2020; Dane-Nielsen, 2019 and Marr, 2008)

When businesses only identify Intellectual Capital indicators without recognising the business model that clarifies the interconnectedness of the indicators and why the package of indicators is relevant for understanding the businesses' strategy for value creation, then the predictors and analysts should do the interpretation. Presently, very limited research-based insight into how this reading and interpretation are conducted or exists and how this understanding of firms' value creation would likely be enabled if companies revealed information on intellectual capital as an integral part of



strategy disclosure. According to Jardon, (2021); Zambon, (2020) and Fenyves et al., (2018), “Value added is calculated as the difference between output and input. However, the information on intangible assets tends to be ignored because it cannot be assessed using monetary units. This causes the values that affect the company’s financial performance to be lost.” (Arifa and Ahmar, 2016 p.45). Corporate Financial Value: Company performance is the reflection of the company’s ability to generate net profit from activities carried out during an accounting period. Many studies have found that company with high returns on the investment of companies that earn a large profit is considered successful and has good performance; otherwise, if the profit earned by the company is relatively small or decreases from the previous period, it can be said that the company is less successful and has a poor performance (Susanti,2010).

Firm Value: The firm value is the investor’s perception of the company, which is often associated with stock price (Rodoni and Ali, 2014: 4). The high firm value will result in a return to stakeholders and provide added value to stakeholders so that the company can maintain its business sustainability. Firm value is a measure used by investors as a basis for the decision-making process to achieve a competitive advantage (Cahyadi, 2012).

The researcher opines that Intellectual Capital components should be estimated following guidelines made by the various projects (Table 2.5, p.65) to assess the value of a company. The International Financial Reporting Standard 38 (IFRS 38) guidelines are therefore too restrictive and do not help in reflecting the true value of companies.

The researcher, therefore, proposes the sixth hypothesis as follows:

*H6: Intellectual Capital indices influence the economic value of insurance companies*

### **3.2.3 Asset Basis Theory of Intellectual Capital**

It is a well-known fact that companies apply intellectual resources to generate future revenues. Such properties should be well thought out when valuing a company by capitalising rather than expensing such attributes in the period or year they are incurred. They should therefore be treated as other assets

or non-tangible assets that are perceived as added value and intellectual capitalisation. As assets are reported on the balance sheet, these perceived and intrinsic values should likewise be recognised and reported along with the physical assets. (Fernando, 2022; Seth, 2021; IFRS, 2018). The Intellectual resource asset is assessed in terms of the skills and knowledge of employees. These services have no physical substance and are non-monetary, they are said to be intangible and the value of the employee should be measured through human capital evaluation. (Murphy,2022; Babai, 2016; Brannstrom and Giuliani, 2009, p.23) described Intellectual capital as follows: Intellectual Capital = identified intangible assets + purchased goodwill. This description of intellectual capital supports the view that intangible assets form part of intellectual capital. (Fischer,2014; Ciprian, 2012)

In the advanced economies, according to Lev, Canibano & Mar (2005), there has been a change from the industrial economy, in which physical resources were foremost, to a knowledge economy, making Intellectual Capital a critical resource and a key determinant of competitive advantage, economic success and value creation in companies. (Khan, 2019; Li, 2019; Xu, 2018)

Indicators: Another type of measurement accessible to management teams is nonfinancial performance pointers. These are aspects of the knowledge factory that can be counted and measured. Many companies have already embraced this concept and track key performance indicators (KPIs). Examples include process metrics and demographic data of human and relationship capital such as headcount and customer number and size. (Villazon, 2020; Hristov, 2019)

The new dimensions display how the system is employed and, where possible, have a primary caution of possible challenges. In the time to come, perhaps their accountants would be encouraged to act and integrate financial data and information into the same reports. It can be dangerous to use just one of these kinds of measurement in isolation because each provides different but important information. To truly understand the earnings performance of the knowledge factory, it makes sense to triangulate its probability using these three types of measurements in combination (Adams, 2010).

The summary below (Table 3.1) presents an overview of the interconnectedness of the above theory (Adams, 2010) with value creation resulting from intellectual capital recognition.

#### **3.2.4 Signaling Theory**

Signaling theory is useful in informing capital market behaviour, particularly corporate revelation and pronouncement (Scott and Potters, 2022; Nurunnabi et al., 2011; Whiting and Miller, 2008; Watson et al., 2002). Like agency theory, the theory of signalling purports that information asymmetry exists when companies have relevant information that investors do not. The disparity of ownership of information may then cause an imperfect situation in capital markets likely to increase perceived risk and cost of capital (Claessens, 2019; Sengupta, 1998; Botosan, 1997; Healy and Palepu, 1993). To narrow the information asymmetry, companies will signal information explicitly to outsiders, which ultimately gains more economic benefit and reputation than other companies that fail to do so (Abad, 2017; Watson et al., 2002; Campbell et al., 2001).

A greater signal is also capable of distinguishing between higher and lower-quality companies (Mazzi, 2022; Barker, 2020; Nurunnabi et al., 2011 and Celik et al., 2006). A higher quality company has a stronger motivation than a lower quality company to signal its strengths and attract more investors. The costs of a failure to signal the strength are deemed to be greater in a high-quality company than in a lower-quality company (FCA, 2021; An Yi et al., 2011). In achieving this benefit, the companies typically use annual reports to disclose a wider range of information including information that is not required by mandate. However, Williams (2001) suggested that some companies may be reluctant to make their information more visible to the public because of the strategic nature of the information which may, in turn, harm the competitive advantages of the company. Meanwhile, the risk of litigation resulting from a misrepresentation of information may

also cause a low level of information signalling activities (Broxterman and Zhou, 2022; Pave and Epstein, 1993).

With Intellectual capital recognition, the transformation from a traditional economy to a knowledge economy has intensified the level of information asymmetry between capital market players and managers due to the limited account of knowledge assets in traditional financial reporting (Yeoh, 2010; Lev and Daum, 2004). Consequently, the real economic value of knowledge-based companies has been undervalued (Seetharaman et al., 2002; Edvinsson and Malone, 1997). Thus, signalling to capital markets through Intellectual capital recognition seems to be a resolution for Intellectual capital information asymmetry problems, particularly for companies that rely heavily on Intellectual capital (Ousama et al., 2012). Intentional Intellectual capital recognition and disclosure may signal the companies' capability in creating future value and at the same time allow a more precise valuation of the company, decrease the perceived risk by potential investors, improve corporate image and more importantly improve relationships with various stakeholders (Serafeim, 2020, Bruggen et al., 2009; Whiting and Miller, 2008; Rodgers, 2007). Those companies with high levels of Intellectual capital may signal the internal and external strength of the company by conveying information about its knowledge assets such as technology, R&D activities, corporate culture, employee skills, brand, customers, and business partners, etc. thus distinguishing them from other less knowledge-based companies. Therefore, in examining signalling theory, this study argues that the increasing importance of knowledge assets in value creation over time has strongly motivated companies to increasingly signal positive information about Intellectual capital in annual reports to ensure they have not been undervalued.

Hasseldine et al. (2005) argued that an information signal will have high quality when it is costly and difficult to replicate. In other words, a low-quality information signal is usually associated with cheaper production, is easy to be produced and replicated, and is divulged in large numbers without

intellectual commitment. A low information signal quality implies a low-quality reporting company which eventually may fail to convince the investors. Consistent with this argument, Watson et al. (2002) stated that to achieve signal quality, the signal content must be credible and verifiable. If a company incorrectly indicates that they are excellent and good quality contrary to what they are and if the misconception is exposed, no subsequent recognition and public show will be believed to be trustworthy by users. Therefore, the quality of the signal relies not merely on the information presented but also on its quality. In other words, how the information is signalled also matters. In assessing information signal quality, the common content analysis approach relying on information frequency is manifestly inadequate. Attempts to assess the signal quality of Intellectual capital reporting using a scoring system based on qualitative measures were employed (Beretta and Bozzolan, 2004 and Beattie and Thomson 2007).

### **3.2.5 Legitimacy Theory**

The concept of legitimate success states that a company's economic performance such as its ability to deliver profit and capital gain to shareholders is no longer considered to be sufficient (Hayes and Scott, 2023; Magness, 2006; Patten, 1991). Rather, given the increasing community awareness and concern as well as the diversity of stakeholders' interests, the survival of the company also substantially depends upon public acceptance of the company's activities (Mousa and Hassan, 2015; Cormier and Gordon, 2001; Patten, 1991). The company can only be allowed to continue its operation if it complies with the expectation and norms of the society in which it operates (Campbell et al., 2006; Wilmshurst and Frost, 2000). The costs of not fulfilling the expectations of the society include boycotting campaigns by customers, limited access to labour and capital by suppliers, and lobbying for legislation that may give rise to compliance costs (Magness, 2006).

The status of an organisation's legitimacy is not static but it is deemed to be location and time-driven (Stanton and Stanton, 2002; Deegan, 2000). This means that legitimacy changes according to changes in public attitudes and values in different locations and times. Therefore, to ensure the survival of

public acceptance, thus maintaining legitimacy, organisations need to be more responsive by having strategies and activities congruent with changes in public attitudes and values over time and place. Nevertheless, perfect congruence between the norms of the public and organisation goals is difficult to achieve and this gives rise to a legitimacy gap. Additionally, the existence of multiple stakeholders with different understandings and expectations of how organisations should act can also widen the legitimacy gap ( Pfajfar, 2022; Gregory, 2020; Kurupu, 2019, Ogden and Clarke, 2005).

An attempt to be seen to act in a manner that is consistent with societal values and in turn shape the community's perception towards management's responsibility to social and environment-related issues can be done through the corporate annual reporting mechanism ( Agudelo, 2019; Camilleri, 2017; Branco and Rodrigues, 2006; Magness, 2006; Campbell, 2004). This is because corporate reporting, particularly of social responsibilities, is thought to be capable of constructing and shaping the legitimacy reality in the stakeholders' perceptions towards a company (Nielsen, 2018; Gray et al, 1995). Several empirical studies have found evidence that the increasing concern over social responsibility has contributed to an increasing level of community and environmental disclosure in annual reports (Cho, 2019; Nazari, 2017; Campbell et al., 2006; Deegan and Rankin, 2002). This research relates to this act of recognition in company reports and public records.

The relevance of legitimacy theory in Intellectual capital recognition study is apparent when it comes to human and relational capital material recognition such as employee, community, environment, suppliers and customer information. Otherwise, the theory appears to be somewhat less appropriate for Intellectual capital studies. The theory therefore provides a partial view of understanding Intellectual capital recognition because some other parts of Intellectual capital such as technology, brand, IT, product innovation, etc, have little connection to maintaining legitimacy in reporting companies. Nonetheless, there has been some attempt to link legitimacy theory and Intellectual capital recognition, for example, in the studies of Nurunnabi et al. (2011); Whiting and Woodcock (2011);

Guthrie et al (2004; 2006) and Whiting and Miller (2008). Some of these suggested that companies may legitimise their corporate success through Intellectual capital recognition if they find it difficult to do so through traditional symbols of success such as tangible and financial assets. Partly grounded on legitimacy theory, this study also assumes that an effort to build favourable relationships with employees, customers, communities and suppliers would not only be able to attain public acceptance and achieve good social performance but also give rise to economic competitive advantages like continued inflows of capital, knowledge, labour and customers.

### **3.2.6 Agency Theory**

Agency theory, according to Fama and Jensen, (1983) and Jensen and Meckling, (1976), is a prominent theory in inquiring into the role of financial reporting to resolve potential conflicts that arise from the separation of ownership, risk bearing, and the management of a corporation. In the corporation setting, the theory purports that the shareholders of the company (principals) require stewardship from those entrusted with the management (agents) and to conduct the business according to the expectations and best interests of the principal as stipulated in the agency's contractual agreement (Chow and Boren, 1987; Eisenhardt, 1989; Briker and Chandar, 1998; Watson et al., 2002). In return, the agents are rewarded based on the extent to which they serve the interests and values of the shareholders. Although the contractual agreement is ideally established on a cooperative basis, the agents more often than not act more for their interest rather than prioritise the welfare and the goal of the principal, and this means that the interests of both parties cannot be aligned. This gives rise to the agency problem (Leftwich et al., 1981; Miller, 2002). These assumptions have been a motivation for many previous studies in conducting empirical investigations into identifying and resolving agency problems.

In agency theory, information asymmetry is thought to exacerbate the agency problem. This occurs when managers who are involved directly in the daily operation of the company make internal

information or their private property. The manager not only conceals this information from shareholders but also may abuse the information to maximise their benefit. Consequently, the concealment of relevant information by management (or so-called insider) could increase the cost of capital (cost of equity) imposed by shareholders. This is because the deficit of relevant information could give rise to uncertainty for shareholders in valuing the true picture of the company (Orens et al., 2009; White et al., 2007).

Actual corporate recognition mechanisms which may be capable of persuading shareholders of insight, for example through voluntary recognition in annual reports, play important roles in resolving the agency problems that result from information irregularity (Brammer and Pavelin, 2006). The fact that shareholders cannot observe the actions of management directly, drives corporate disclosure as a channel to monitor the manager's activities and to appraise their performance (Bricker and Chandar, 1998).

Regarding Intellectual capital recognition, the annual report has an important role in communicating and influencing the reality of the corporation in the minds of the general public or shareholders (Coy and Pratt, 1998). It is contended that in the knowledge economy, where Intellectual capital has replaced traditional assets as the main source of value creation, shareholders demand more information about Intellectual capital-related activity to be recognised in the financial statements. The demands for Intellectual capital information could reduce the information asymmetry about the 'real value' of the company. Therefore, management should understand and address valuable Intellectual capital-related information in annual reports to increase certainty, reduce agency costs and maximise their rewards (Ousama et al., 2012). The recognition of Intellectual capital in financial statements may validate that the company is 'up to date' as far as the knowledge economy is concerned.

### **3.2.7 Impression Management Theory**

Impression management occurs consciously or unconsciously and is an attempt to control image in social interactions. Being the keeper of information within this interaction, organisations control and



manage information in a persuasive and influential manner which can, in turn, affect an audience's attitudes, opinions and behaviour towards the organisation (Stanton et. al., 2004). Clatworthy and Jones (2006, p.494) said that "impression management is a tendency for organisations to use data selectively to present themselves in a favourable light". Previous literature indicates that impression management commonly occurs in corporate annual reports (Stanton and Stanton, 2002). Because the organisation has editorial control over the annual report, they are often regarded as instruments of impression management through which a desired identity of a reporting firm is constructed (Ogden and Clarke, 2005). Merk et al. (2011, p.318) contended that: "impression management in corporate reporting, mainly in annual reports, entails managers resourcefully taking advantage of information asymmetries to bias readers' perception of firm performance either by making the clear depiction of organisation's positive outcome or by obscuring its negative outcome".

Prior studies have found impression management activity in annual reports in narrative disclosure (Smith and Taffler, 1992; Clatworthy and Jones, 2006), in the use of graphs (Beattie and Jones, 1992:1997; Cho et. al., 2012) and in photographs (McKinstry, 1996; Hooks et al., 2010; Cho et al., 2012).

Impression management techniques using graphs appear to be fairly common among companies (Beattie and Jones, 2002). Beattie and Jones (1997) found that 92% and 80% of major publicly listed companies in the US and the UK respectively employed colourful and 'eye-catching' graphs as a method to impress investors. It was reported that 65% of companies preferred to hire external professional graphic and visual designers to design annual reports that could enhance positive impressions among investors towards the companies. Cho et al. (2012) pointed out that graphs were used in an attempt to manipulate and obfuscate information to shareholders. In general, they suggested that managers have an incentive, using graphs, to obfuscate failure but to underscore successes in the company. It was found that enhancement took place in the the graph presentation. The sample companies showed a favourable bias of choice of items to be graphed (selectivity) as

evidenced by the fact that 70% of graphs depicted items with a favourable trend while unfavourable items were mainly graphed in an obscure manner.

The occurrences of impression management in the narrative parts of annual reports have also been found in several previous studies (Ogden and Clarke, 2005; Clatworthy and Jones, 2006). Ogden and Clarke (2005) found that impression management in the annual reports of water companies during privatisation took place in both 'assertive' and 'defensive' forms. These techniques were employed to maintain, repair and renew organisational legitimacy, primarily in the aspect of water leakage. The assertive impression management form involves the construction of specific identity and building reputational characteristics of organisations (e.g. ingratiation, self-promotion, exemplification, entitlements and enhancement). On the other hand, the defensive form involves a technique to prevent the organisations from being associated with undesirable and negative attributes (e.g. dissociation, apologies, excuse and justification). The selection of technique was varied and conditional upon the issues to be addressed.

Another approach examining impression management at the narrative level of recognition was performed by Rahman, (2012) and Clatworthy and Jones, (2006). The study employed analysis of textual characteristics (which can be referred to as qualitative characteristics in this study) which encompass the different lengths of words to communicate success and failure; active or passive voice; the extent of personal and singular reference used; the extent of key financial indicators reported; the quantitative references and soft qualitative discussions and future orientation of content reported in chairman statements. The study reported that there was a different technique of impression management in the chairman's statements between profitable and unprofitable companies. Similar findings were reported in impression management studies of analysts' reports (Ho and Harris, 2000; Bradshaw, 2002).

The only study so far that specifically incorporated impression management theory into the Intellectual capital disclosure study was conducted by Abhayawansa and Guthrie (2012). The study found that analyst reports with favourable recommendations disclosed a broader type of Intellectual capital information with most of that being on external capital, with more references to future orientation exposure and more positive references. For less favourable recommendations reports (sell or holds), it was found that more volume of Intellectual capital information was recognised numerically or with past orientation and discursive Intellectual capital references. The study concluded that Intellectual capital information in analyst reports was managed to impress investors in such a way as to moderate pessimism with unfavourable recommendations and at the same time to enhance the perceived credibility of analysts.

Intellectual capital recognition might be used as an impressive technique to celebrate and communicate value creation, as companies may not be able to describe value creation using conventional information that is typically disclosed in the annual report such as information about earnings per share, cash flows and profit figures.

### **3.2.8 Decision Usefulness**

Research in financial reporting has often been centred on 'decision usefulness'. It is argued that to be effective in financial reporting, information recognised and displayed in it must be decision-useful, that is, capable of providing relevant and reliable information to assist users to make economic decisions (Hooks and van Staden, 2004). It is noted that the usefulness of accounting information has been principally examined from two viewpoints. Firstly, the Efficient capital market (ECM) which is an approach that monitors how stock prices react to accounting information. Secondly, behavioural accounting research, an approach that focuses on the decision usefulness of accounting information at an individual level, that is, it focuses on how people make decisions from accounting information. This theory would be explored in this research as recognition of intellectual capital in financial

statements would serve as accounting information that would draw the attention of the capital market actors.

Decision usefulness has been a motivator for increasing the practice of Intellectual capital recognition. The transformation from a traditional economy to a knowledge economy has changed the sources of corporate value creation from hard to intangible assets (Arthur, 1994; Yongvanic and Guthrie, 2005; Switzer, 2008; Li, 2019; Jardon, 2021). Therefore, traditional financial reporting, largely conveying hard and financial assets is believed to become less decision-useful in evaluating the real value of companies (Eccles et al., 2001; Lev and Daum, 2004). The ongoing decreasing usefulness of traditional financial reporting in reflecting real value can be explained by the increasing disparity between the book value (BVA) and market value of assets (MVA) (James and Williams, 2021; Edvinsson and Malone, 1997; Brennan, 2001; Seetharanam et al., 2002). A way of resolving this is a new reporting system, capable of identifying and reporting knowledge assets, for example, Intellectual capital reporting (Jardon, 2021; Blair and Wallman, 2000; Ittner and Larcker, 1998). This demand rests upon the belief that Intellectual capital information recognition is increasingly useful and relevant for decision-making. Incorporating Intellectual capital information in corporate recognition and disclosure would enable a reporting company to attract the inflow of more valuable resources, for example, skilled employees and technology partners (Whiting and Miller, 2008).

The capital market approach to researching Intellectual capital recognition has been performed in several prior studies and these demonstrate the substantial effect of Intellectual capital information (at the Intellectual capital component level) on stock price changes. (e.g. Kallapur and Kwan, 2004; Ghosh and Wu, 2007; Orens et al., 2009). Meanwhile, the application of a behavioural approach in previous studies (survey on investors and company directors) also reveals that industry people view Intellectual capital or intangible related information as increasingly useful and important (Eccles et al., 2001; Boedker et al., 2008).

This research also assumes that the decision usefulness of information is not static. Rather, it is dynamic and determined by many contingent factors. For example, the location, time and specific industry demand may, to some extent, influence the degree to which the information being disclosed is useful (Campbell and Rahman, 2010). In particular, the usefulness of the information disclosed can be argued to be time-contingent.

Additionally, the decision usefulness of data is not solely reliant on the presence of information but also relies upon the ‘quality’ of information being conveyed. Here, what is reported and how it is reported is seen to be capable of influencing how the quality of reported content is perceived and how its usefulness is valued. Put in other words, the decision usefulness of information can be enhanced if it is disclosed in a higher quality form. This argument was made by Van Beest et al. (2009) who pointed out that high-quality financial reporting can be a basis for decision usefulness. He then defined quality information as that which has relevance and faithful representation as well as enhanced qualitative characteristics which include understandability, comparability, verifiability and timeliness. Similarly, Imhoff (1992, p.101) defined quality in terms of relevance, reliability and comparability. Cormier et al. (2005, p.5) in investigating environmental disclosure, defined disclosure quality as the sum of perceived precision, relevance and usefulness for decision-making. Meanwhile, Hutton et al. (2003) referred to ‘soft talk’ information as low quality because this sort of information is conveyed in a qualitative and non-verifiable manner whilst high-quality information is characterised by verifiability and forward-looking character, which eventually may impact its usefulness. Therefore, this theory relatively informs the relevant measurement of recognition quality developed in this research.

### **3.2.9 Stewardship Theory**

Stewardship theory regards the owners of the business as principals and the managers of the business as agents. Stewardship theory argues that shareholders’ interests are maximised by shared incumbency roles of the Chief Executive Officer (CEO) and the Board chairperson.

Stewardship theory stresses the beneficial consequences to be gained by shareholders where the dual position of the CEO and the chairman of the board are held by one person in an organisation. The theory argues that where the functions of the CEO and the chair are performed by one person, it will facilitate the unification of command which will bring about complementary and positive results for the shareholders.

However, in a study carried out by Donaldson & Davis (1991), they assert that the result of their empirical test failed to support agency theory and provided some support for stewardship theory.

### **3.2.10 Intellectual property theory**

Theorists of intellectual property (Ezell, 2019; Saha, 2011; Fisher, 2001) described intellectual property as a framework of legal doctrines which regulate the use of different sorts of ideas and insignia which can be attributed to a person and or organisation.

Intellectual property is fundamentally the construction and administration of copyrights and patent laws that create systems through which governments help raise the rate at which inventions are produced. Such inventions and creations are protected against competition to enable their owners to recoup both their physical and economic costs. These property rights are some without value except legal protection.

Table 3.1 below deliberates on the core structures of each of the theories and their likely association with the principle of Intellectual capital conceptualisation and recognition.

Table 3.1 (Applicable theory and relevance to Intellectual capital recognition)

<b>Applicable Theory</b>	<b>Description/Characteristics</b>	<b>Relevance to Intellectual capital recognition</b>
<b>Stakeholder</b> McBee, J (2022) Landau, P (2019) Whiting and Miller (2008), Guthrie et al.,(2006), Whiting and Woodcock (2011), Khan and Ali (2010) Jensen (2010), Landau (2019), McBee (2022)	Stakeholder theory focuses more on the position of stakeholders because it is considered powerful. The stakeholders' group is a major consideration for companies regarding whether to disclose or not to disclose any information contained in the financial statements. In the stakeholder theory, the company has stakeholders, consisting of not only shareholders, but also employees, customers, suppliers, creditors, government, and society.	Stakeholders require information about important corporate assets (e.g. Intellectual capital). The high level of Intellectual Capital in a company would lead to a high level of Intellectual Capital recognition in annual reports. Expectations of the various stakeholders in a business environment must be satisfied by the managers. The researcher would focus on the recognition of Intellectual capital in the financial statements of the listed insurance companies in the Abuja and Lagos stock exchanges and its impact on the investors' perception regarding the value of the companies.

	Value added is considered more accurate to link the return, which is considered the size of the shareholder (Herdyanto and Nasir 2013).	
Signalling	Barker, R (2020) Mazzi, F (2022) Zambon, S (2020)  Whiting and Miller (2008), Abhayawansa and Abeysekera (2009), Ousama et al. (2012), Nurunnabi et al. (2011).	Signalling Intellectual Capital recognition and disclosures would enable investors to better assess the firm's future wealth creation and allow precise valuation of firm value and reduce the perceived risk of investment. Therefore, recognition in financial statements acts as a signal that would indicate areas of the company where wealth has been created. Shareholders' and potential investors' investment interest by the perceived value created in the shares of the insurance company.
Legitimacy Mousa & Hassan (2015) Whiting and Miller (2008), Guthrie et al., (2006), Whiting and Woodcock	Chariri and Ghozali (2007) revealed that legitimacy theory is a state or status, in which a system of corporate value can tune to the value system of the social system that looks larger, in which the company is part of it. When	Firms with high levels of Intellectual Capital will be more inclined to recognise Intellectual Capital information as they cannot legitimise their status through traditional symbols of corporate assets. The recognition of intellectual capital in financial statements would serve as a legitimate method of displaying the value



(2011), Khan and Ali (2010), Ousama et al.	there is a real or potential difference between the two value systems, there	created. This research would abide by this theory.
<b>Applicable Theory</b>	<b>Description/Characteristics</b>	<b>Relevance with Intellectual capital recognition</b>
Agency	Isnalita, FR (2018) Kyere, M (2021) Nguyen, A (2020) White et al. (2007), Ousama et al. (2012), Nurunnabi et al. (2011).	The agency will vary according to company characteristics. Therefore, the variables of company characteristics such as board independence, leverage, industry, age, profit and size may affect the volume of Intellectual capital disclosure. This research would rely on the agents and principal relationship which would guide and oblige the provision of intellectual capital in the financial statements as a way of demonstrating accountability and performance measurement. This would lead to the evaluation of the company's value and wealth creation.
Impression management	Rahman, S (2012) Brennan and Merki-Davies (2013) Abhayawansa and Guthrie (2012)	Analysts engage in impression management to be optimistic and maintain perceived credibility. Not just the type of Intellectual Capital but also how the Intellectual Capital is reported, is

		<p>motivated by impression management.</p> <p>This research would draw on the public image perception generated by the listed insurance companies' reputation and the impression created in the minds of the actors of the capital market which dovetails into shareholders' and potential investors' risk and investment appetites.</p>
Decision usefulness	<p>UNCTAD (2021)</p> <p>Patelli and Pedrini (2014)</p> <p>Whiting and Miller (2008)</p> <p>Seetharaman et al (2002)</p> <p>Van der Meer-Kooistra and Zijlstra (2001)</p>	<p>The economic transition towards a knowledge economy makes Intellectual Capital recognition more useful for investors to make investment decisions and hence maintain or attract the inflow of valuable resources. This research would also rely on a proposed voluntary reporting that would support the financial reporting and assist investors in their decision-making. This theory is about investors deciding to invest as a result of the value created by the financial statements' intellectual capital recognition.</p>
Stewardship	<p>Goergen, M (2021)</p> <p>Lima Da Costa and Martin (2019)</p> <p>Donaldson &amp; Davis</p>	<p>The theory argues that where the functions of the CEO and the chair of the board are performed by one person, it will facilitate the unification of command</p>

	(1991)	<p>which will bring about complementary and positive results for the shareholders. This act is seen as an intellectual capital attribute for value creation.</p> <p>The theory argues that shareholders' interests are maximised where the duality function is performed by one person. This research would draw on the benefits of the duality of roles in the listed insurance companies. This may be rare as most stock exchange guidelines would perhaps require a separation or segregation of duties and roles.</p>
Value	<p>Rieg, R (2023)</p> <p>Manstead, ASR (2018)</p> <p>Novell, LS (2017)</p> <p>Boisot, M H (1998)</p> <p>IASB, 2009:9-16)</p> <p>IASB (2011:A152)</p> <p>Olsen, Halliwell &amp; Gray (2007)</p>	<p><b>Value Theory</b> is the study of the worth or value of ideas, things, people or anything else. Value theory aims to understand how, why and to what degree individual people or groups (organizations) value anything. Values may be reported in the contextual disclosures of the corporate annual reports to communicate the unreported value of the organisation. This unreported value is the intellectual capital that needs to be recognised in the financial statements which this research is</p>

		all about.
<b>Applicable Theory</b>	<b>Authors and studies</b>	<b>Relevance with Intellectual capital recognition</b>
Intellectual property	Ezell (2019), Saha (2011) Fisher (1999; 2001), Landes & Posner (1989)	The framework of legal doctrines regulates the use of different sorts of ideas attributable to a person and or organisation.  This entails the creation and enforcement of copyrights and patent laws. These are values created which are part of intellectual capital that may not have been recognised in the financial statements. However, most intellectual property has a legal value which may be outside the scope of this research.
Asset recognition basis	IASB (2011:A847), Brannstrom and Giuliani (2009 :23) Cronje (2013)	These assets are not recognised as assets in the financial statements, thus forming part of the intellectual capital that is expensed as a periodic cost. According to IASB (2011:A847), “Intellectual capital does not meet the definition of an asset and the recognition criteria”. This research is about exploring the relevance of intellectual capital recognition in the

		<p>financial statements in Abuja and Lagos just as demonstrated by companies in developed economies through local accounting standards and or guidelines.</p>
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Table 3.1 (Applicable theory and relevance to Intellectual capital recognition)

Source: Researcher's adapted (2022)

### **3.3 Justification of Conceptual Framework**

Based on the gaps identified in chapter two, the research explored the impact and relevance of Intellectual capital on the financial reporting of the listed insurance companies in the Abuja and Lagos stock exchanges of Nigeria. The framework (Figure 3.1) demonstrates the pictorial flow and process of how Intellectual Capital categories and indices connect, to contribute towards the overall company value creation. This justification includes enhancing the thought process of the researcher's perceived axiological belief in this research.

It links all the information from the literature review includes a collection of theories and models that help to conceptualise and postulate an evaluation framework to guide the research that explains the research questions, and recognises and labels the variables (Chao-Chien, 2011; Kivunja, 2017).

The researcher believes that the conceptual framework acts as an adequate preparation guidance and frame of reference for insurance companies' management and finance professionals in decision-making in the implementation of Intellectual capital recognition systems. There appears to be limited literature and few conceptual frameworks on Intellectual capital systems adopted in Nigeria by listed insurance companies to guide the preparation of financial statements and management accounting.

This chapter contains the researcher's justification of the progress of a conceptual framework development and the elucidation of the need for testing and confirming this model, since there has been limited research in Intellectual capital recognition in the Insurance industry in Nigeria. This specifically identified the main variables involved in this research and their vital activities at each phase of the research progress. Following the identification of the gaps in the literature together with the concepts, principles and models reviewed in chapter two, this chapter presented propositions of a conceptual framework that demonstrates the relationships and nexus of the various Intellectual capital components and indices that influence the valuation and profitability of listed insurance companies in Abuja and Lagos.

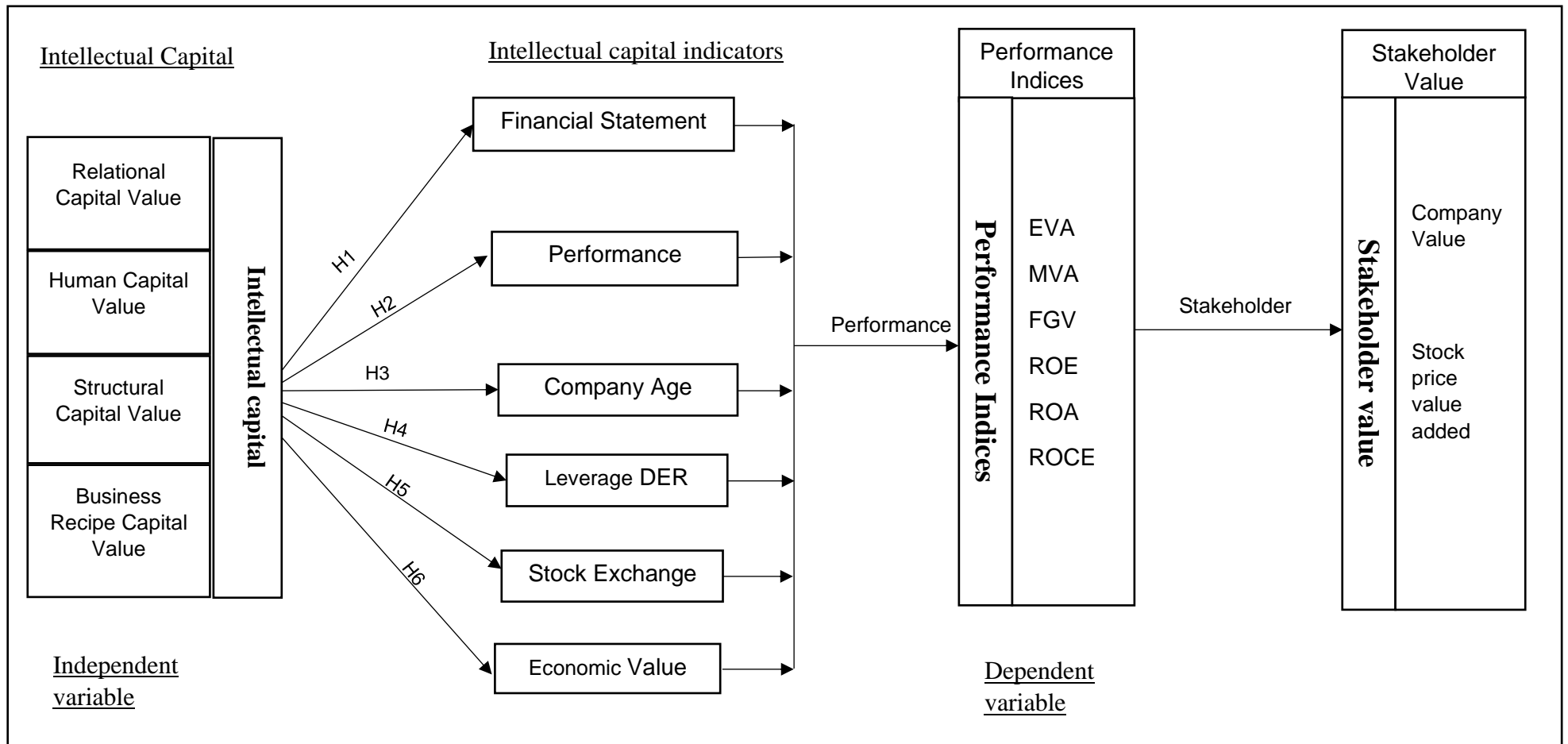
In this research, there are four independent variables as the predictor variables and six dependent variables as indices of the performance of the listed insurance companies. There are six hypotheses (H1 to H6) which are linked by creating a relationship with the indicators which were tested quantitatively using descriptive statistics, multiple regression analysis and correlation analysis on the variables.

### **3.4 Proposed Conceptual Framework**

Figure 3.1 depicts the conceptual framework of the research. H1 to H6 represent hypotheses of the research showing the relationships between intellectual capital and its components together with the indices influencing listed insurance companies' value.

*H3: Intellectual Capital (IC) is negatively related to company age*

*H4: Intellectual Capital (IC) value of a company is linked to its leverage status*



**Figure 3.1 Conceptualisation of Intellectual Capital**

Source: Researcher's adapted (2022)





Intellectual Capital embodies the possessions of an organisation that have been or would be formalised, apprehended and leveraged to generate assets of a complex value (Bontis 1999, Sveiby 1997; Marcin, 2013; Serrat, 2017 ). The concept of Intellectual Capital arose from the debate on goodwill and the variance between book valuation and the present market value of assets (Lynn, 1998; Berzkalne · 2014; Ousama · 2020 ). According to Roos (2005), “the Intellectual Capital perspective was initially developed as a framework for analysing the value contribution of intangible assets in an organisation”. They posit that the first phase concentrated mostly on the reporting of models and the progress of Intellectual Capital frameworks, while the second phase centred on the effect of Intellectual Capital on the performance of labour and capital markets. (Kianto, 2020; Dumay, 2020)

This stage provided a background information summary of the research topic. The summary draws from the main themes in the extant Intellectual Capital literature. Moreover, the involvement of each theme in the general objectives of researching the link between Intellectual Capital and the listed insurance companies’ performance will be emphasised.

In a bid to the development of a model of Intellectual Capital, a disassembly of the multifaceted concept to support the understanding and analysis resulted in a four-factor conceptual framework for Intellectual Capital. This conceptual framework has four important components, value-added relational capital (VARE), Value Added Human Capital (VAHU), Value Added Structural Capital (VAST) and Value Added Business Recipe (VABU) (Strategic) Capital. This arrangement is consistent with Sveiby,1997; Alarbid,2022; Ahamad,2022; Setiadi,·2022 ) who divided Intellectual Capital into three areas, namely, employee competence, internal structure and external structure, Stewart’s (1997) human capital, structural capital and customer capital, and Edvinsson’s (1997) and Adam (2015) further extended by Value Added Business Recipe (strategic) capital. The literature documented the importance each of the four components of Intellectual Capital has on listed

insurance companies' performance. Nevertheless, it is evident in reviewing the literature that each Intellectual Capital component is related to and reliant upon the others.

### **3.5 The Intellectual Capital Charts**

The above chart (figure 3.1) illustrates the components of Intellectual Capital using concepts and gaps identified from the literature. This is made of four categories of Intellectual capital, namely Value Added Relational Capital (VARE), Value Added Human Capital (VAHU), Value Added Structural Capital (VAST) and Value Added Business Recipe (Strategic) Capital (VABU). This is consistent with (Firmansari et al. 2019, p.35) stated in their study of the Indonesia stock exchange “The framework of the relationship between Intellectual Capital which is an independent variable with the Economic Value Added (EVA) as an intervening variable and shares return as the dependent variable. The main components of VAIC: the physical capital (VACA – Value Added Capital Employed), Human Capital (VAHU - Value Added Human Capital), and Structural Capital (STVA - Structural Capital Value Added)”.

Each of these capitals has its attributes that contribute to the overall impact on the value of a company. The Intellectual Capital is linked by each of the hypotheses (H1 to H6) to demonstrate their influences through the performance indices, the dependent variables. The independent variables are predicting and contribute all together toward the value of listed insurance companies.

Hypothesis one (H1) represents the Intellectual capital recognition as shown in the financial statements of the listed insurance companies. This would be tested and validate the recognition statement. Hypothesis two (H2), represents the company profitability testing link to confirm the validity of the statement. Hypothesis three (H3) represents the company’s age with Intellectual Capital value. Intellectual Capital value linkage to the listed insurance company’s leverage is tested under hypothesis four (H4). The level of debt-to-equity ratio impact on the intellectual capital is tested to confirm its relationship. Hypothesis five is to test the influence of Intellectual Capital recognition

on the capital market valuation perspective. Hypothesis six (H6) represents the linkage of Intellectual Capital and the economic value of listed insurance companies. The relationship and impact of intellectual capital on the overall performance of listed insurance companies are tested and validated through the indices of performances and indicators resulting in enhancing the value of the listed insurance companies that would benefit the stakeholders.

The above proposed conceptual framework was tested and validated accordingly. This leads to a revised conceptual framework to validate the theory and practice building of the relationships and impact of Intellectual capital on listed insurance companies in Abuja and Lagos.

### **3.6 Financial Statements Recognition of Intellectual Capital (H1)**

Intellectual capital recognition in the financial statements of listed insurance companies is crucial in this research and its conceptualisation in the framework is assessed and validated by the hypothesis testing of the variables. Managers who are responsible for companies' value creation are almost unanimous in their view that modern accounting is unable to consider these new assets (the competencies of staff, customer relations, computer and administrative systems, databases, etc.) (Oleynikova, 2016; IFAC, 2020, Zumente · 2021) According to Abeysekera (2007), "Intellectual capital held by a firm can be thought of as a form of "unaccounted capital" under the traditional accounting system terminology, and may be described as the knowledge-based equity that supports the knowledge-based assets of a firm". This was tested by content documentation of sixteen selected listed insurance companies in Abuja and Lagos.

### **3.7 Company Profitability (H2)**

The by-product of good performance is profitability. This variable in the framework is significant in this research as it dictates the value-creation goal of this research. Some scholars find evidence that higher Intellectual capital leads to higher competitive advantage and thus company performance

(Oppong, 2019; Kasoga, 2020); Ibarra-Cisneros, (2020). Some researchers focus on Intellectual Capital as important as it transforms more tangible physical and financial capital into added value and improved performance. (Purwanti, 2019; Ekaningrum, 2021). Companies must pay specific attention to Intellectual Capital when seeking to improve their performance. (Rajapathirana, 2018) Therefore, consistent with the existing literature, the authors measure profitability in terms of return on equity as it should be a better indicator of firm profitability from the perspective of an equity investor than alternative measures such as the return on assets. (Fort et al. 2017). This evaluation of this variable was based on the outcome of 141 respondents from questionnaires feedback of the listed insurance companies.

### **3.8 Company Age (H3)**

This research chose to investigate the relationship between the Intellectual Capital of listed insurance companies with their age. This is consistent with the study in Italy of listed companies. The inclusion of a variable for company age (AGE), or length of establishment, recognises the fact that companies develop Intellectual Capital value over time in a cumulative manner (Nahapiet and Ghoshal, 1998; Bordianu, 2014; Fort et al. 2017), though evidence on the relationship between company age and Intellectual Capital value in the existing literature is mixed. Apart from the Intellectual Capital literature, many authors have studied the relationship between company age and market value. According to Leonard-Barton (1992),” the core competencies could inhibit firm growth because of the tendency of firms to change them into core rigidities over time. Loderer et al. (2016), following company life-cycle theories, highlight a negative relationship between firm age and Tobin’s q ratio, underlining how younger firms tend to invest more in growth opportunities, thereby obtaining a higher market value, while older firms invest less in R&D, tending to concentrate their efforts on the better management of assets in place, thus causing a decline in value over time. Moreover, within the sphere of Intellectual Capital studies, Goebel (2015) finds a negative but insignificant relationship between Intellectual capital value and firm age, while Youndt et al. (2004) also find no influence of

firm age on IC value. In contrast, Reed et al. (2006) find that firm age has a significant positive influence on Intellectual Capital value in their study of retail banks, though find no such relation for commercial banks. On balance, and drawing largely upon theory arguments rather than existing evidence, a negative relationship is expected between Intellectual Capital value and firm age. (Forte et al. (2017, p.714). This test was carried out by respondents' feedback from 44 insurance companies operating as of 31 December 2020.

### **3.9 Company Leverage Status (H4)**

This research framework included company leverage as one of the hypotheses to be tested. This is consistent with Fort et al. (2017, p.715) which stated that “Most lenders to the companies will often be influential stakeholders. Indeed, as the debt to total assets ratio increases, lenders may gain greater influence on the company’s management, driving them to accelerate their investment in Intellectual capital as well as encouraging them to better manage Intellectual capital resources given their relevance for value creation (Keenan and Aggestam, 2001; Goebel, 2015). This effect is likely to be more pronounced for countries with insider governance systems, prevalent in countries such as Germany and Japan, as discussed by Dignam and Galanis (2009) and Goebel (2015). While lenders do not exert such a strong influence on Italian companies, their influence is nonetheless potentially important. In Italy, SMEs are more affected by the influence of lenders, and in particular banks. Elshandidy and Neri (2015) argue that the monitoring role of the corporate governance structure (i.e. the presence of independent managers) improves the stewardship function of the firm, introduces an external control mechanism that reduces agency costs, mitigates information asymmetries, and encourages managers to provide more accurate company risk information. Elshandidy et al. (2013) find that firm leverage positively influences the level of risk information that firms provide in their narratives. Through a company’s risk profile, investors can better estimate the company's market value, and make more accurate investment decisions (Elshandidy and Neri, 2015; Segal, 2022).

Therefore, a positive relationship is expected between leverage (DE) and IC value. This assessment was done by review of annual reports and financial statements of 16 listed insurance companies.

### **3.10 Capital Market Valuation (H5)**

Capital market valuation's relationship with Intellectual capital recognition and its relevancy is shown in the conceptual framework as a value creation mechanism that needs to be validated in this research. The Market capitalisation method of valuation gives the market size of intellectual capital. The assumption of this method is market capitalisation over stockholder's equity as intellectual capital. This method is based on market premium and quote stock price (Dosso, 2017; Svanadze, 2017). This was tested by the feedback from questionnaires respondents from the listed insurance companies.

### **3.11 Economic Value H6**

Economic value added has been conceptualised in the above framework (figure 3.1) as one of the main driving forces of the value added by the listed insurance companies in Abuja and Lagos. The Intellectual capital indices play a vital role in the value added by the listed insurance companies. According to Single (2008), "economic value added is a financial management system for measuring the economic profit in a company, stating that welfare rates can only be created if the company can meet all operating costs (operating costs) and capital costs (cost of capital)." Economic Value Added (EVA) or Economic Profit is a measure based on the Residual Income technique that serves as an indicator of the profitability of projects undertaken. Its underlying premise consists of the idea that real profitability occurs when additional wealth is created for shareholders and that projects should create returns above their cost of capital (Kaplan, 2020; Chen, 2022).

The economic added value is a measurement of financial performance by combining the general concept of net income with the principles that exist in modern finance which specifically states that the entire capital generates costs and revenues that exceed the cost of capital (cost of capital) will create value for shareholders (Subedi, 2020). The return also works as a basis for determining the

return and risk of future expectations. Return expectations of an expected return will be obtained for the future. One factor that makes investors invest the time to invest is a high return, with high returns, investors hope to get a high reward on the investment made (Firmansari et al., 2017, p.35).

Economic value indices testing was based on feedback from questionnaires respondents from the listed insurance companies in Abuja and Lagos.

### **3.12 Summary of Hypotheses**

Below is a summary of the six hypotheses that were tested. Refer to the chapter with full data collection and analysis in chapter six.

- 1) *H1: Intellectual Capital recognition in financial statements has become an increasing phenomenon in the financial statements of insurance companies.*
- 2) *H2: Intellectual Capital (IC) is positively connected with company profitability.*
- 3) *H3: Intellectual Capital (IC) is negatively related to company age.*
- 4) *H4: Intellectual Capital (IC) value of a company is linked to its leverage status.*
- 5) *H5: Intellectual Capital recognition is perceived as relevant from a capital market valuation perspective.*
- 6) *H6: Intellectual Capital indices influence the economic value of insurance companies.*

### **3.13 Chapter Summary**

While disclosure of information on intangibles has been increasing, there are no clear signs that investors' and analysts' demand for information has been met. Eccles et al. (2001, p.189) conclude that managers ``genuinely believe they try hard to give the market the information it wants. But most analysts and investors believe managers could try harder'' and the literature cited above is awash with well-developed arguments for better disclosure and empirical studies documenting this need, without much-perceived improvement in general disclosure practice.



While there could be many explanations for this ‘‘lack of understanding’’, the researcher will argue in this commentary that, for intellectual capital disclosure to be perceived as relevant from a capital market perspective, the information should be disclosed as an integral part of a framework illuminating the value creation processes of the firm. This means that an intellectual capital report should communicate the management’s understanding of strategy and value creation, and not only show indicators of general interest. An Intellectual Capital report cannot only be read by comparing indicators between firms because strategies and value creation models are likely to differ between firms. It also implies that disclosure of Intellectual Capital should be done in the framework of the firm’s strategy for value creation, that is the value creation model should also be disclosed.

# **CHAPTER FOUR**

## **RESEARCH METHODOLOGY**

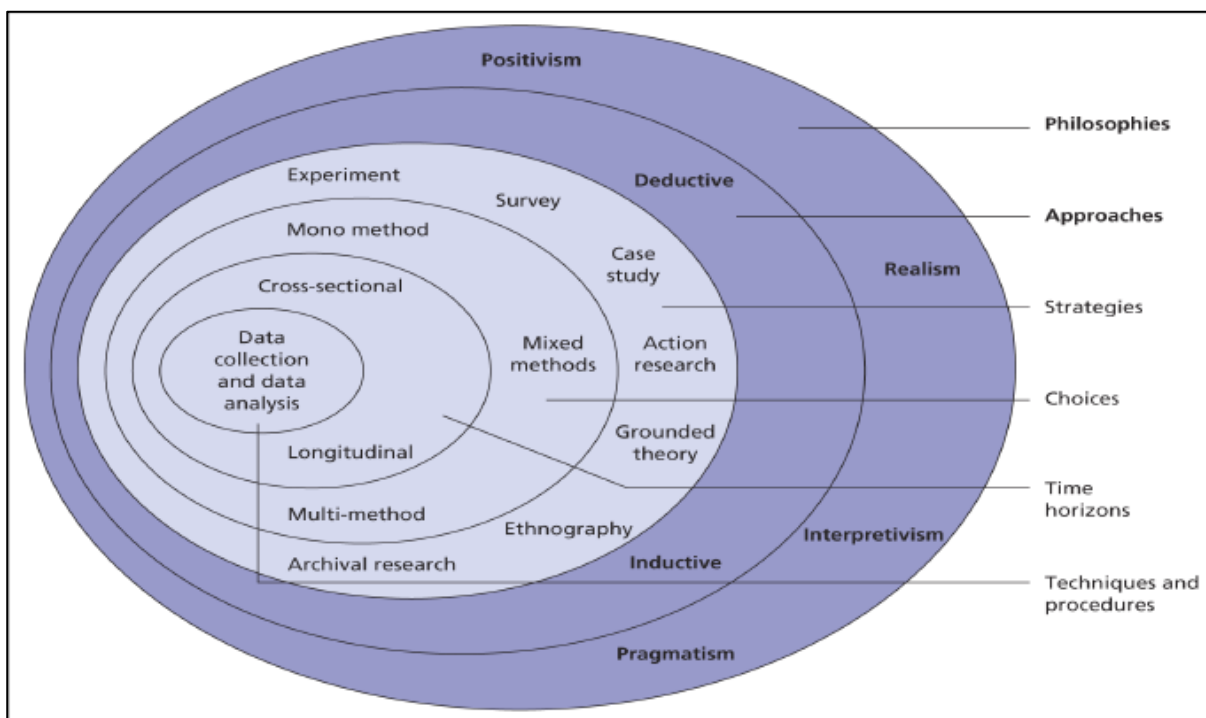
### **4.1 Introduction**

To prove why it is important to include Intellectual Capital in financial statements and reports, it is necessary to understand how exactly Intellectual Capital is created, employed and benefited from by companies. (Oleynikova, 2016 pg.62). In the social sciences, as the researcher embarks on the research process, it is important to clearly articulate the philosophical assumptions made in relation to knowledge, human nature and the empirical world. These assumptions have direct methodological implications.

This first chapter relating to methodology highlights those philosophical assumptions that the researcher used in guiding the research process and the selection of the research methods appropriate to those assumptions. This chapter discusses the research philosophies, approaches, processes, and methods, and then it displays various stages and procedures essential in conducting this research, answering research questions and meeting research objectives. This chapter shows in detail the processes and procedures that were undertaken to carry out this research. It discussed steps that had to be followed to complete the study (Easterby-Smith et al, 2012, p.132). Therefore, to meet the research objectives this chapter covered various sections starting with research objectives and questions, research philosophy, the research approach, the research strategy, data collection method, research design, data analysis plan, reflexivity, ethical issues and limitations. Each section discusses important issues regarding carrying out research. Hence, the first section highlights research objectives and questions as well as their propositions. The second and third sections shed light on research philosophy and approaches. The fourth and fifth sections focus on the research process, research method and design. The sixth section discusses the plan for analysing data. Then the chapter ends with Section seven addressing research reflexivity and ethical considerations.

## 4.2 Research Design

This is exploratory and descriptive research. For this research, the Research Onion Process (Saunders et al, 2009, 2016) is chosen as it shows all stages undertaken in the research procedure. It presents a very comprehensive framework for the research by giving choices for the research process in every stage that has been undertaken.



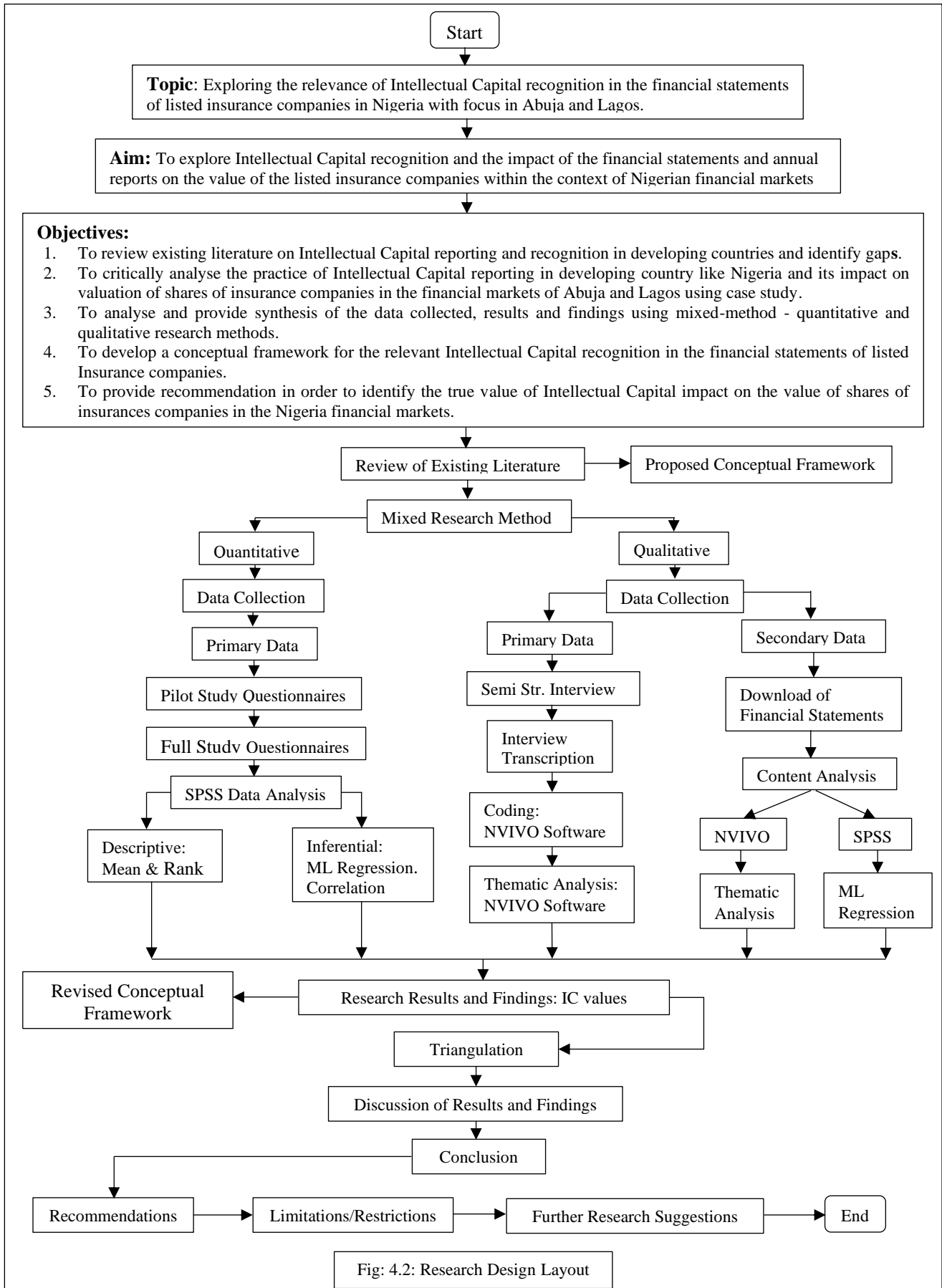
**Figure 4. 1 The Research ‘Onion’**

Source: (Saunders et al, 2016, P.124)

Saunders, et al (2016, 2009) explained the research methodology in a figure symbolically called the research onion, which includes six layers or steps. As shown in Figure (4.1), the first layer introduces a research philosophy, followed by the research approach, strategy, methodological choice, and then time horizons and ending with data collection and analysis.

Figure 4.2 below shows the graphical layout of the research design illustrating the various stages of the research process in summary. It indicates the types, methods and instruments used in this research.

## Research Design Flowchart



Source: Researcher's adapted (2022)

#### **4.2.1 Research Philosophy or Paradigm**

The philosophies used in this research are positivism and interpretivism. Management accounting researchers have used both the positivist and interpretivist approaches in their empirical work. (Parker, 2012; Kholeif, 2016; Jansen, 2018; Rashid, 2019; Jariya, 2021).

Bhimani (2002) has demonstrated that both paradigms have been used effectively to advance the accountancy discipline. Whatever the basis for categorisation, commentators on research approaches tend to agree that not all accounting studies fit neatly into a specific research type. This has led to some researchers taking issue with Kuhn's (1970) position that paradigms are incommensurable. Some researchers argue that the multi-faceted nature of organisational reality renders the use of a single research paradigm to narrow a view. The qualitative tradition emerges as contributing to the understanding and critiquing of management and accounting processes, as well as having the ability to address the concerns of practitioners and policymakers. (Parker, 2012, p.54). Therefore, the researcher has adopted positivism and interpretivism because of the complexity that surrounds the insurance industry in Nigeria.

Zimmerman (2010, p.3) asserts that only positivist management accounting research has any status. He conjectured that the use of non-economics-based frameworks, lack of empirically testable theories, lack of publicly available data, the use of the inductive approach and an emphasis on decision-making have resulted in management accounting failing to produce a substantive ambulated body of knowledge. These conjectures fuelled a debate on the validity of paradigms, their application and worth as Ittner and Larcker (2003, p 88), Luft and Shields (2010), and Lukka and Mouritsen (2022, p.805) all rejected Zimmerman (2010, p 17) positivist position and called for a variety of approaches to management accounting research. Ittner and Larcker (2003) argued that a research

strategy that combines economic-based and behavioural approaches as opposed to fixating on purely economic models is much more likely to produce substantive research about management accounting.

Table (4.1) below illustrates the major features of the two philosophies of conducting research and creating new knowledge in social science.

**Table 4. 1: Major features of the two philosophies**

	Positivism	Interpretivism
Main features	<ul style="list-style-type: none"> <li>- Quantitative</li> <li>- Objective</li> <li>- Scientific</li> <li>- Traditional</li> <li>- Uses large samples</li> <li>- Not a natural location</li> <li>- Hypothesis testing</li> <li>- Results with high reliability but Low validity</li> <li>- The result generalised from the sample to the population</li> </ul>	<ul style="list-style-type: none"> <li>- Qualitative</li> <li>- Subjective</li> <li>- Humanist</li> <li>- Phenomenological</li> <li>- Uses small samples</li> <li>- Natural location</li> <li>- Generating theories</li> <li>- Findings with low reliability but high validity</li> <li>- Findings generalised from one setting to another similar setting</li> </ul>

Source: Karami, (2011)

There are certain principles and directions provided by research methodology to frame the actions and beliefs of a scientist to inform others about their research approach. The sets of principles and directions are called research paradigms. According to Guba and Lincoln (1994), paradigms are defined as: ‘basic belief systems based on ontological, epistemological and methodological assumptions’. Alvesson and Skoldberg (2009), and Coghlan and Brannick (2010) state the existence of three traditions in the philosophical foundation of scientific research that are linked with five

research paradigms (Table 4.2). The various combinations of ontological and epistemological approaches indicate different types of reflexivity (Coghlan and Brannick, 2010). In research, axiology refers to what the researcher believes is valuable and ethical. Basic beliefs about what is ethical, guide the researcher’s decision-making. The purpose of the inquiry needs to be balanced with what the researcher values as well as other ethical considerations in the conduct of research (Guba and Lincoln, 2005). Researchers often feel that one paradigm fits better than others, however, the research approach fit always depends on the question to be answered.

Table 4.2 Reference points in the philosophy of science and related research paradigms (Guba and Lincoln, 1994; Johnson and Duberley, 2003; Guba and Lincoln, 2005; Alvesson and Skoldberg, 2009; Coghlan and Brannick, 2010).

**Table 4.2: Related Research Paradigms**

<b>Paradigms</b>	<b>Positivism</b>	<b>Interpretivism</b>
<b>Philosophical foundations</b>	Positivism	Social constructionism
<b>Ontology</b>	Objectivist (Realist)	Subjectivist (Relativist)
<b>Epistemology</b>	Objectivist (Realist)	Subjectivist (Relativist)
<b>Axiology</b>	Propositional knowing about the world is an end in itself and is intrinsically valuable.	Propositional, transactional knowing is instrumentally valuable as a means to social liberation, which as an end in itself, is intrinsically valuable.
<b>Theory</b>	Generalisable	Particular
<b>Reflexivity</b>	Methodological; to support objectivity	Hyper; to invoke alternative voices

<b>Role of researcher</b>	Distanced from data; sceptical and impartial expert	Close to data; narrative therapist
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Source: Researcher adapted (2022)

In the context of research philosophy, (Saunders et al, 2007) illustrated three major ways of thinking: epistemology, ontology, and axiology. Each way contains meaningful differences, which are more likely to influence researchers' thinking about the research process. Research philosophy refers to a researcher's stance towards creating new knowledge. When researchers attempt to conduct their research, they should holistically understand, which philosophical stances are taken and that the research philosophy that is adopted will contain assumptions about how one views the world, yet these assumptions will underpin the research strategy and the methods or techniques, which will be chosen as a part of that strategy. However, the philosophy you embrace will be influenced by practical considerations. In addition, it gives the reader a clear view of assumptions which have been made before, for example (Saunders et al, 2007) mentioned that when the research aims to expand or create new knowledge, there has to be a perception of which philosophical stance is taken. Deciding a stance represents a crucial factor and should be considered carefully. The extant literature in management research has two views on undertaking research.

Ultimately, in this research, the researcher has considered a set of facts and reasons. Additionally, this research is scientific research and views reality as being based upon social phenomena. Current research proposed a theoretical model and aimed to establish causal links among research variables and testing hypotheses, (Trochim and James, 2001; Thomas & Hunger, 2010). Therefore, positivism offers researchers a roadmap for finding a causal relationship and discovering how these relationships influence behaviour, by searching for a sample that is selected randomly from a population, (Gill and Johnson, 2010). Thus, positivism has been chosen as the ontological position of this research and



quantitative data is concerned with hypothesis testing to meet the research objectives and answer the research questions.

Therefore, the researcher proposes a model and develops a conceptual framework and draws a research hypothesis. Empirical data has been used to test the hypotheses, (Saunders and Lewis, 2007; Saunders et al, 2007). According to (Bryman and Bell, 2011), there are six stages in the deductive approach. First, ideas are identified based on the literature. Second, a hypothesis is drawn from the literature. Third, data has been collected from a large number of listed insurance companies. Fourth, data is analysed through specific techniques and produces the research results. Fifth, the hypothesis is tested to be confirmed or rejected. The final stage of the deductive approach is the revision of the theory if applicable. Thus, this research attempts to address the associations between independent and dependent variables, starting from theory to hypotheses and testing the hypotheses.

Concurrently, the nature of current research also requires the testing of the causal link among variables in the research model, which makes the deductive approach seem one of the approaches to be adopted in this research.

Any research must be conceptually and theoretically grounded in the researcher's ontological and epistemological positions. Neuman (2012, pp 227-248) asserts that these positions would influence the nature of the phenomenon to be investigated, the approach and the analysis used. This has resulted in the creation of a set of rules to follow which is dependent on the research philosophy adopted. In management accounting, like several other disciplines, researchers must therefore be cognisant of the philosophical assumptions about knowledge, the empirical world and the relationship between theory and practice to guide their research (Chua, 2019 pp 3-20). The philosophical assumptions about knowledge or epistemology are concerned with one's understanding of the nature and validity of knowledge. Craib (1992) in Roos (2005; p.196) defined epistemology as the "nature of an

explanation: what methodology to use, what logical structure must it have, what proofs are required, or how do we know that our knowledge is knowledge”. This involves the examination of the relationship between the researcher and that which is being researched (Collis and Hussey 2014, p.43).

On the other hand, ontological issues or assumptions that the researcher makes about the empirical world are concerned with the researcher’s beliefs about the nature of reality. This nature of reality relates to whether social entities can and should be considered objective entities and external to the researcher or constructed by the individuals involved in the research situation (Creswell, 2013, p.10). In addition, consideration is given to whether reality is orderly and lawful; unitary or multiple; fixed and stable or constantly changing; and whether there is an existence of a natural social order. The assumptions the researcher makes in this regard directly influence the selection of research methods. A third consideration in the research process is the axiological assumption that the researcher makes. This assumption is concerned with the role of values in the process, that is, whether the researcher can be unbiased and truly value-free. The diametrical nature of the epistemological, ontological and axiological assumptions has resulted in the creation of several research paradigms which are seen as incommensurable. The two main research paradigms are labelled positivist and interpretivist, although there is considerable blurring between these two paradigms. The positivist paradigm is seen as one extreme of the continuum relating to the epistemological, ontological and axiological assumptions.

The epistemological issue, in this paradigm, concerns whether the social world can and should be studied using the same principles, procedures and ethos as the natural sciences (Bryman and Bell 2011, p.16, Neuman 2012, p.227). This paradigm assumes that knowledge can be acquired through observation and built up piecemeal. The ontological issue, according to Hopper and Powell (2007, p.429), regards the social world and its structures as having empirical, concrete existence external to,

independent of and before the cognition of any individual. This objectivist position posits that social phenomena and their meanings have an existence that is independent of the social actors. The positivist assumes that people's behaviour and experiences can be regarded as being completely determined and constrained by their external environment.

In terms of the axiological perspective, positivists believe that science and the process of research are value-free. Finally, theory building in this paradigm typically takes place in a deductive manner starting with reviews of the existing literature. At the other extreme of the continuum, the interpretivists' perspective on epistemology is that the subjective meaning of social action is the essence of the research. Such researchers posit that the social world can be understood only by first acquiring knowledge of the subject under investigation (Hopper and Powell 2007, p.429). Regarding ontology, the reality is depicted as existing only as a product of individual consciousness. These constructionists assert that the external social world consists simply of concepts and labels, built up from the perceptions and actions of the social actors, to help them understand reality and negotiate a shared conception of its nature with others (Bryman, 2011; Neuman 2003, 2012).

The interpretivists consider that researchers have values which help them to determine what is recognised as facts and the interpretations which are drawn from them (Collis and Hussey 2014, p.43, p50). The goal of theory building in the interpretivists' paradigm is to generate descriptions, insights and explanations of events so that the system of interpretation and meaning are revealed using an inductive approach. The use of the interpretive and critical perspectives as alternatives to mainstream accounting approach has been advocated by Chua (2019, pp3-20), Gioia and Pitre (1990, pp584-602) argue that multi-paradigm perspectives are not so much a search for the truth but more a search for comprehensiveness stemming from different world views. The conjecture that multiple views created by different paradigms might be linked can yield a more comprehensive view of organisational phenomena in that paradigm boundaries are permeable.

Researchers in management accounting continue to debate the distinctive contributions of knowledge that arise from different philosophical views and conceptual paradigms and the extent to which they are incommensurable (Chua 2019, Ahrens and Chapman 2006, Brown and Brignall 2007, Ahrens 2008, Kakkuri-Knuuttila et al. 2008). They argue that the unique characteristics of accounting provide for the use of multi-methodology research designs. This debate in management accounting is repetitive as some researchers will support only a positivist's position while others will continue to agitate for the inclusion of other paradigms and demonstrate how such an approach advances the management accounting discipline (Carrington, 2009; Taylor, 2019; Chua, 2019; Jariya, 2021).

The researcher reflected on this debate, as Intellectual Capital within the management accounting framework is multi-disciplinary and therefore the researcher can be caught between paradigms. However, in this research process, an empiricist, objectivist framework has been adopted to assess the significance placed on Intellectual Capital by organisations and the impact of Intellectual capital on organisational value in the insurance industry in Nigeria. Prior research has established a causal link between Intellectual Capital and organisational value in European and North American knowledge-based companies (Bontis, 1998a; Roos et al., 1997; DATI, 1998). The choice of an empiricist approach was derived from the need to test the theories relating to Intellectual Capital and organisational valuation in this new environment. Thus, testing the theory relating to Intellectual Capital in other contexts can generate new knowledge. Zimmerman, (2010, p.10) postulates that testing hypotheses derived from theory allow knowledge to accumulate in the sense that refuted hypotheses force revisions of the underlying theory.

Epistemology does not depend on beliefs about correspondence to such entities in the world itself. Earlier, Beams (1969) had argued that empiricism is particularly applicable to accounting since it relates to the domain of reality which deals with particular facts and concrete solutions, that

observation is necessary to acquire warranted beliefs, and accounting is motivated by the desire to acquire indisputable information about factual situations concerning the financial experience. Beams (1969) asserts that to achieve this objective then only quantitatively analysed data from observed enterprises can be used. Bryman (2011, p.16) asserts that ontological considerations are concerned with the nature of social entities and whether social entities can and should be considered objective entities.

#### **4.2.2 Research Type**

The research type is primary and secondary. The primary utilises questionnaires and an interview process for obtaining data. The secondary aspects would deal with the review of valid public available documents such as annual reports and financial statements websites of NAICOM and listed insurance websites, Nigerian stock exchange.

#### **4.2.3 Research Approach**

Deductive and Inductive approaches are available for this research because it is anchored on the fundamental principles of accountancy which in the contemporary trajectory of accounting research for the future that is now applying quantitative and qualitative paradigms (Parker, (2012). Therefore, this forms the basis of using deductive and inductive approaches in this research. For the research, the inductive approach will be applied largely because it will follow the bottom-up approach (Daff, 2011). The research onion provides a choice layered of deductive and inductive. This is an important aspect of the design process. Quantitative research uses the deductive approach whilst the Inductive approach is used for the qualitative method of research. There can be a combination of methods which is the mixed methods. Such multiple methods are quan + qual, qual + quan, quan + quan, and so on. This research would adopt the deductive and inductive approaches.

**Table 4.3 Differences between deductive and inductive approaches.**

<b>Deductive</b>	<b>Inductive</b>
Scientific principles	Understanding the meaning of reality and events

Move from theory to practice (data) The causal relationship between variables Quantitative data Structured approach Independence of researcher Selecting, and sampling to generalise the conclusion Top-down approach	Dealing with qualitative data Structures are more flexible The researcher involved as part of a research Bottom-up approach
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Source: Hakim (2003)

As we can see from the differences table, each approach is different, for instance, inductive approaches are more flexible in terms of structure and that gives researchers a wide range of freedom in analysing research problems and describing findings and going further into detail. On the contrary, a deductive approach is a more structured approach that offers researchers a guideline or road map to discover reality and create knowledge.

#### **4.2.4 Research Method – Mixed Method.**

Quantitative and qualitative research methods are the two main approaches used to gather information, each associated with different methods for collecting the information. Generally, each of these approaches is associated with a particular epistemological and ontological position. That is, some purists believe that quantitative research should follow a positivist tradition and qualitative research should follow an interpretivist position. However, there are researchers whose worldviews reject these purists' claims as extreme and find it advantageous to mix methods (Rocco et al 2003). The use of mixed methods generally increases a study's validity and interpretability in that some measures may overlap different facets of a phenomenon.

This is particularly true of Intellectual Capital research; therefore, a mixed method approach was deemed most appropriate to answer the research questions set out in this research. A mixed method approach was used for example by Bontis and Fitz-enz (2002) to investigate the effectiveness of human capital within organisations in Canada. Social phenomena are frequently interconnected in

complex ways and qualitative methods can elucidate this in a manner that simple quantitative models cannot. Therefore, a mixed method approach employing a sequential exploratory strategy was used in this study, where the first phase was quantitative followed by the qualitative phase. The purpose of such a strategy was to use the quantitative data and results to assist in the interpretation of qualitative findings. Morgan (1998) suggested that this design is appropriate when testing elements of an emergent theory resulting from the quantitative phase and that can be used to generalize qualitative findings to different samples. Creswell (2003) concurs that this model enables a researcher to explore a phenomenon and also expand on the qualitative findings.

Multiple data collection was used to support the mixed-method approach in management accounting. Eisenhardt (1989) asserts the use of multiple data collection methods provides a stronger substantiation of constructs and hypotheses where qualitative research is combined with quantitative evidence. This process is referred to as the triangulation of research methods. The research questions identified for this study would be better answered using methods taken from both the quantitative and qualitative approaches. According to Eisenhardt (1989), qualitative data are useful for understanding the theory underlying the relationships revealed in the quantitative data. Additional support for the triangulation of methods approach in this study was gained from Abernethy et al (1999) who asserted that the use of multiple methods achieved the objective of generalisability, limits bias and enhances the meaningfulness of measures. Therefore, quantitative methods were used to answer research questions RQ1 and RQ2, qualitative method was used to answer research questions RQ3 and both quantitative and qualitative were used to answer research questions RQ1.

#### **4.2.5 Justification for Using Mixed Methods**

Qualitative and quantitative research methods are the two main approaches used to gather information, each associated with different methods for collecting the information. Generally, each of these approaches is associated with a particular epistemological and ontological position. That is,

some purists believe that quantitative research should follow a positivist tradition and qualitative research should follow an interpretivist position. However, there are researchers whose worldviews reject these purists' claims as extreme and find it advantageous to mix methods (Rocco et al 2003). The use of mixed methods generally increases a research's validity and interpretability in that some measures may overlap different facets of a phenomenon. This is particularly true of Intellectual capital research, therefore, a mixed method approach was deemed most appropriate to answer the research questions set out in this research. A mixed method approach was used for example by Bontis and Fitz-enz, (2009) to investigate the effectiveness of human capital within organisations in Canada.

Social phenomena are frequently interconnected in complex ways and qualitative methods can elucidate this in a manner that simple quantitative models cannot. In addition, accounting models are constituted through numbers and these numbers reflect human agency which is driven by organisational rules, norms and incentives. The multidisciplinary nature of Intellectual Capital required an approach that captures both the mathematical aspects of the relationship under consideration using quantitative techniques and the human, behavioural and organisational issues that give rise to or result from that relationship employing qualitative techniques.

Additional support for the triangulation of methods approach in this study was gained from Abernethy et al (1999) who asserted that the use of multiple methods achieves the objective of generalisability, limits bias and enhances the meaningfulness of measures. Therefore, qualitative methods were used to answer research questions one and three, quantitative methods were used to answer research question two, and both qualitative and quantitative were used to answer research questions one and three.



#### **4.2.6 Triangulation**

Triangulation is an instrument by which data are authenticated and validated, and it acts to ensure accuracy and different elucidations are made. Triangulation comes across as a proper and needful thing to ascertain the credibility and validity of the developments and procedures to overcome probable biases. It is important to mention that triangulation is also a standard for data gathering in various methods of research. This seeks to comprise the joint usage of diverse research methods to research a similar phenomenon to corroborate the concept.

From another perspective, triangulation is a strategy for improving the validity and reliability of the research or evaluation (Apulu, 2012). This research employs a sequential type of triangulation which can be achieved through a combination of multiple methods in arriving at a more appropriate point and the use of this approach strengthens the credibility of the research findings (Golafshani, 2003, p.597, Castro, 2010; Carter, 2014; Novell, 2017; Buchholtz, 2019). Triangulation refers to the use of more than one approach for the investigation of a research question to enhance confidence in the ensuing findings (Bryman, 2015). In this research, this is achieved by ensuring that the result of the survey questionnaires, which itself is built based on a systematic review of literature, is further combined with evidence from the interview and document review to ensure validity and reliability. According to Webb et al (1966), when a proposition has been confirmed by two or more independent measurement processes, the uncertainty of its interpretation is greatly reduced, suggesting that the most persuasive evidence comes through a triangulation of measurement processes. Thus, the research design in this research, which involved the use of multi-method research in which a quantitative and a qualitative research method are combined to provide a more complete set of results and findings, is appropriate in ensuring the credibility of its findings. Chapter six has the full triangulation of data sources and the eventual outcome.

#### 4.2.7 Quantitative

In the first stage of the research, a quantitative approach was used to enable the researcher to make some generalisations about intellectual capital in the listed insurance companies. Bryman and Bell (2004) described quantitative research as a strategy that emphasises quantification in the collection and analysis of data, uses a deductive approach to relate theory to research, and has an orientation that is positivist epistemologically and objectivist ontologically.

The research variables for this study were grouped into dependent variables and independent variables. The dependent variable of this research is management accounting information with the indicators of Economic Value Added (EVA), Market Value Added (MVA), Future Growth Value (FGV), Return on Equity (ROE), Return on Assets (ROA) and Value Added Capital Employed (ROCE). The Independent variable of this research is intellectual capital with the indicators of Value Added Relational Capital (VARE), Value Added Human Capital (VAHU), Structural Capital Value Added (VAST) and Value Added Business Recipe (strategic capital) (VABU).

In this empiricist orientation, theory building took place in a deductive mode starting with the review of the extant literature; hypotheses were derived by selecting specific variables as likely causes of some desired effect. Such hypotheses are tentative statements of relationships that either extend prior theory in a new direction; propose an explanation for a perceived gap in the existing knowledge or set up a test of competing possible explanations (Collis and Hussey 2003 p. 172). The results of these processes are either the verification or rejection of the hypotheses with theory building occurring through incremental revision or extension or rejection of the original theory.

Finally, in assessing the quality of a quantitative approach, the researcher must ensure that issues of reliability and validity are taken into account. According to Neuman (2003), reliability refers to a measurement that is consistent and repeatable under similar conditions while validity refers to how well the conceptual and operational definitions match. The use of standardised procedures, precise

data and systematic measures used in designing data collection ensured that the reliability and validity concerns raised in the literature were addressed. Abernethy et al (1999) identified three types of validity; construct validity, internal validity and external validity. They assert that construct validity seeks to assess whether the constructs of theoretical interest are captured and measured reliably. The design of this study using data from the first phase in addition to the literature greatly enhanced construct validity. Additionally, the use of survey-type data collection methods in a quantitative approach increased external validity which according to Abernethy et al (1999) incorporates “population validity”, “ecological validity” and “temporal validity”, that is the ability to generalise and extrapolate the results of research across other populations, environments and time horizons.

#### **4.2.8 Qualitative**

Bryman and Bell (2019, p.39) described qualitative research as a strategy that emphasises words as opposed to quantification, uses an inductive approach, and has interpretivist and constructionist orientations. In attempting to answer the first research question relating to the impact of intellectual capital recognition on the value of listed insurance companies, a qualitative approach was deemed most appropriate. Neuman (2014, p. 7) argues that qualitative research captures and discovers meaning in the data, where concepts are in the form of themes and generalisations, data in the form of words and images, and the analysis is largely the extraction of themes and generalisations to present a coherent picture. It was imperative that during the second stage of the research, the constructs relating to intellectual capital that are used in the insurance companies were clearly explained and thus a qualitative approach was better suited to produce such information.

In addition, the qualitative research approach enabled the researcher to understand the social and cultural contexts relating to intellectual capital within the organisation. Atkinson and Shaffir (1998) posit that human behaviour cannot be understood by observing from the outside, instead, the researcher should use qualitative methods, such as field surveys, informal interviewing and other

techniques which would yield descriptive data. In addition, the selection of a qualitative approach was predicated on the view that intellectual capital incorporates several constructs that are tacit, embedded in processes and socially complex. Rouse and Daellenbach (1999) argue that fieldwork is the appropriate method to gain in-depth knowledge and understanding of organisational processes that are implied, highly inimitable and socially complex. Atkinson and Shaffir (1998) argue that field research, a qualitative approach, should be used in management accounting research to assess how individuals or groups react to management accounting information.

The output from the qualitative process yielded rich data, but the ability to generalise the findings was quite limited. With the qualitative research approach, whilst attention was paid to the principles of reliability and validity, it was more important at that stage to be authentic by giving an honest and balanced account (Neuman 2003). Additionally, the use of multiple measurement methods, which are usually dictated by the evolving context in qualitative research, impacted the replication process. The use of such diverse measures together with the interaction of participants illuminated different facets of intellectual capital within the organisations.

#### **4.2.9 Research Strategy**

The adoption of a research strategy depends on the type of research operation in question and involves the aim, objectives and the type of outcomes expected from the study. It also addresses the degree of control that can be exercised by the study over the variables and whether the focal point concerns past or current events (Yin, 1994; Garg, 2016; Sileyew, 2019; Reed, 2021)).

This research aimed to explore Intellectual Capital recognition and the impact of the financial statements and annual reports on the value of the listed insurance companies based on empirical data collected from multiple sources of Nigerian experience covering 6 years between 1<sup>st</sup> January 2015 to 31 December 2020.

Clough & Nutbrown (2012) argued that the adoption of a strategy should show not only the advantage of a method for the given purposes of the research but also how and why this way of doing it is unavoidable and required by the context and purpose of the particular enquiry. Onwuegbuzie & Leech (2005, p.385) added that “Pragmatic studies are more likely to be cognizant of all available research techniques and to elect methods to their value for addressing the underlying research question, rather than with regard to some preconceived bias about which paradigm is a hegemony in social science research.” This situation lends itself better to inter-supportive goals and objectives, particularly through mixing of the two or more research methods to achieve the aim of this research. According to a pragmatic research philosophy, the research question is the most important determinant of the research philosophy just as in the case of this study. Pragmatics can combine both positivist and interpretivist positions within the scope of a single research study and according to the nature of the research question (Dudovskiy, 2016). Pragmatism accepts concepts to be relevant only if they support action, and pragmatics recognise that there are many different ways of interpreting the world and undertaking research, that no single point of view can ever give the entire picture and that there may be multiple realities (Saunders, 2011).

**Table 4.4 Comparing the Research philosophies of Interpretivism, Positivism and Pragmatism**

<b>Philosophy</b>	<b>Interpretivism</b>	<b>Positivism</b>	<b>Pragmatism</b>
Type of Research	Qualitative	Quantitative	Mixed method
Methods	Open-ended questions, emerging approaches, text and/or image data	Closed-ended questions, pre-determined approaches, numeric data	Both, open and closed-ended questions, both, emerging and predetermined approaches, and both, qualitative and quantitative data analysis

Research practices	Positions study within the context Collects participant-generate meanings Focuses on a single concept or phenomenon Brings personal values into the study Studies the context or setting of participants Validates the accuracy of findings Interprets the data Creates an agenda for change or reform Involves study in collaborating with participants	Tests or verifies theories or explanations Identifies variables of interest Relates variables in questions or hypotheses Uses standards of reliability and validity Observes and then measures information numerically Uses unbiased approaches Employs statistical procedures	Collects both, qualitative and quantitative data Develops a rationale for mixing methods Integrates the data at various stages of inquiry Presents visual pictures of the procedures in the study Employs practices of both qualitative and quantitative research
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(Source: Andrew et. al., 2011)

Table 4.4 demonstrates the main differences between the research viewpoints of interpretivism, positivism and pragmatism.

In light of this, the pragmatism research philosophy is adopted for this research because a mixed method of both quantitative and qualitative research is involved. A rationale for that is used to propose mixing multiple methods and triangulating data at different phases of the inquiry to achieve the aim of this research (Andrew et al, 2011; Kelly et al, 2020; Allemang, 2022).

In light of this, the pragmatism research philosophy is adopted for this study where a mixed method of both quantitative and qualitative research is involved. A rationale for that is used to propose mixing multiple methods and integrating data at different stages of the inquiry to achieve the aim of this research (Andrew et al, 2011; Schoonenboom, 2017).

Ethnography – Fieldwork and ethnography- internet and online sources were adopted to gather data from the insurance companies in Abuja and Lagos. Netnography – internet and online sources were used to collect the list of insurance companies from the Nigerian Exchange Group (formerly known

as the Nigeria stock exchange) and NAICOM - National Insurance Commission websites including the individual websites of the insurance companies. Questionnaires were distributed electronically to respondents and by hard copy delivered whereas online distribution was declined by respondents.

### **4.3 Data Collection Techniques**

The primary reason for collecting data is to analyse it, conclude and find a solution to the problem. It helps in describing and stimulating the data and identifying the relationship between variables. The accuracy of the outcome largely depends on the correct analysis of the data. The data collected can be segregated into two categories, quantitative and qualitative. Quantitative data works best for hypothesis testing and the data gives quantifiable and easy-to-understand results. A combination of summarising data and generalising from the sample would give us a wholesome analysis. To formulate responses from the survey questionnaire, a combination of ordinal and numerical scales, under Likert scale were used as some questions might include the rating of the quality of the product while others might require the respondent to arrange the responses given in the order of their preference (McBurney and White, 2009).

The following themes were formulated and used for a systematic approach to data analysis.

Organising data for assessment -> Categorising and evaluating main points -> Classifying the information -> Designing the thematic pattern -> Elucidating the designed themes.

A combination of questionnaire survey, interviews and content analysis were used for this research. A survey is one of the most popular methods of collecting data for research. A series of relevant questions were asked and the recorded responses were used for analysis. Content analysis of the six years annual reports (2015 to 2020) of the insurance companies was used.

Most of the time, there is the need to associate specific research strategies with particular research philosophies but the boundaries between them may be porous, there is space for flexibility. To make the outcome of the report more conclusive, a combination of different methods including sampling, secondary data, interviews and questionnaires were used. A sampling of the target population for the questionnaire helped achieve accuracy. To collate and analyse secondary data, journals and online sources were referred to (Dey, 2002). Also, email and other internet communication forms were used for the process as they are cost-effective and have very almost no possibility of bias. However, this did not help a great deal with the respondents in answering sensitive questions with ease.

#### **4.4 Population**

The terminology population in research is a complete set of elements (persons or objects) that possess some common characteristics defined by the sampling criteria established by the researcher. Population can be explained as a comprehensive group of individuals, institutions, objects and so forth with have common characteristics that are the interest of a researcher. The population of study in this research is the 67 insurance companies registered in Nigeria as of 31<sup>st</sup> December 2015 to 2020 as listed in Appendix 10. These were the insurance companies registered in Nigeria by the Corporate Affairs Commission (CAC) and the National Insurance Commission (NAICOM) from 31<sup>st</sup> December 2015 to 2020. These two bodies have the legal mandate to register and regulate the activities of insurance companies in Nigeria. Only registered companies are authorised by law to operate in Nigeria as insurance companies. A target population represents the exact group the researcher wishes to draw his conclusion (Draugalis & Plaza, 2009; Hayes,2022). Using a target group gave the researcher the advantage of including the most knowledgeable workers who understood the subject matter of intellectual capital measurement. Among these insurance companies, a target population of workers in the managerial and strategic departments of finance and accounts, human resources, marketing and information technology, comprising senior managers, directors and junior managers are considered for this study. Managers and senior managers represent the section of



the staff team in these departments that can give precise and dependable information about intellectual capital perceived value and financial performance in their companies. The target population is used in this study to avoid unreasonable and illogical responses as much as possible. It was also most reasonable and logical to include only insurance companies which are registered by the Corporate Affairs Commission (CAC) and the National Insurance Commission (NAICOM) in the population of research. The target population is 67 insurance companies.

#### **4.5 Sampling Frame**

The sampling frame for this study is insurance companies that are quoted on the Nigerian Stock Exchange (NSE) between 1<sup>st</sup> January 2015 to 31<sup>st</sup> December 2020. Quoted insurance companies are listed as sampling frame because: First, quoted companies are qualified and approved by the Corporate Affairs Commission (CAC) and Securities & Exchange Commission (SEC) as authentic companies in the business of insurance in Nigeria. Both the CAC and SEC are government approved as financial regulatory bodies in Nigeria (CAMA 2004). Second, quoted companies have measurable financial frameworks, which are globally acceptable and can be quoted as reliable reference materials (Al Mamun, 2009). Third, audited financial reports are more accessible for research purposes. Fourth, Reports obtained from such companies are easily verifiable by any interested party.

#### **4.6 Sampling Method**

Sampling was one of the major areas considered during the design phase. According to Kalleberg et al (1990, p.658) if the demonstrative sampling process could not be followed then, there is a slighter than a spontaneous foundation for making a sweeping statement about the outcome outside of the specific cases researched. To ensure the validity of the generalisations of the sample to the population under examination, a reasonable and adequate sampling frame was produced. The process whereby the researcher selects a sample based on experience or knowledge of the group to be sampled. It is

also called “judgement” sampling. In purposive sampling, the researcher never knows whether the cases, selected represents the population. (Vasileiou et al, 2018). The Purposive or judgement sampling method was used in this research. A purposive or judgment sampling technique is used in this research. (Palinkas et al., 2015; Ames et al., 2019) where the sample population for the research has a strategic feature and the researcher wishes to take into consideration some typical cases which will appropriately aid his research work. The purposive sampling method had the advantage of eliminating unsuitable elements in the sample and making the result more accurate. The selection of the insurance companies was based on some criteria as enumerated in Table 3.2, purposive sampling method became the most appropriate method for this research. The population was segmented to include only those insurance firms which certified the criteria for being quoted in the Nigeria Stock Exchange as well as being active in the market for the period 1<sup>st</sup> January 2015 to 31 December 2020. Therefore, any insurance company that was active and quoted on the floor of NSE as of 31<sup>st</sup> December 2015 and 2020 was included in the sample size. This method was adopted to provide the researcher with requisite information that will satisfy the purport of the research and deal effectively with those insurance firms in Nigeria which were active in the market so that results obtained from the analyses would be more reliable.

#### **4.7 Sample Size and Sample Technique**

The sample size is the total number of samples selected for the study. The sampling technique used in this research is a non-probability sampling method by using specific criteria that have been determined and selected by the researcher.

The sample size for this study is forty-four (44) insurance companies. This size represents the number of insurance companies which were active on the trading floor of the Nigeria Stock Exchange from the 31<sup>st</sup> of December 2015 to 2020. This can be obtained from the NSE daily stock summary of 31<sup>st</sup> December 2015 in Appendix 14. The size was arrived at as stated in Table 4.5

**Table 4.5 (Sample Size Selection Table Showing Population, Sample Frame and Sample Size)**

<b>Reference Appendices</b>	<b>Description</b>	<b>Number of Insurance companies</b>
	<b>POPULATION</b> of registered insurance companies	67
	Private limited liability insurance companies	(21)
	<b>SAMPLING FRAME</b>	46
	Less: Islamic Takaful listed insurance companies (Non-profit making insurance company)	(2)
	Less Inactive insurance companies	(0)
	<b>SAMPLE SIZE</b>	44

**Source: Researcher's adpted, 2022.**

The sample criteria in this study are; (a) the insurance companies listed on the Abuja and Lagos Stock Exchange, (b) the insurance companies that consistently publish their financial statements during the years of 2015 to 2020 inclusive (c) the insurance companies whose financial statements have been audited in Nigeria and (d) the insurance company would not have made any losses during the six years. From the population of 44 listed insurance companies, 176 questionnaires were distributed and 141 (80.1%) were retrieved from the respondents, 30 listed insurance companies agreed to participate in the interview process, 20 insurance companies (66.7%) participated and 10 could not honour their promise due to various administrative and time constraints.

#### **4.8 Sampling Saturation Point**

Saturation is the most common guiding principle for assessing the adequacy of purposive samples in qualitative research (Morse, 1995,2015; Sandelowski, 1995). The concept of saturation was developed by Glaser and Strauss (1967, p.61) as '*theoretical saturation*' and was part of their influential grounded theory approach to qualitative research. Hennink et al. (2017, p. 15) define saturation in two forms, code and meaning saturation, these being the stage where "no additional codes are emerging" and where no "further insights" are originating from the data. Re-affirming the

former, Urquhart (2012, p. 194) details it as the point where “There are mounting instances of the same codes, but no new ones”.

There is no notion about the minimum or maximum number of samples; instead, the sample size should be optimum. According to Low (2019, p. 131), most of the current studies on saturation concentrate largely on how many interviews, how big the sample size or how many focus groups are required to attain the saturation point “rather than developing a conceptual and didactic definition of what it is”. Very minimal methodological research is available on the specifications or guidelines that shape saturation, what it entails, how to evaluate it as well as on the specific and transparent parameters on how to accomplish it. Glaser and Strauss (1967, p. 61) described saturation as a parameter for judging when to cease sampling, this being the point where “no additional data are being found where the sociologist can develop properties of the category. And he sees similar instances over and over again, thereby the researcher becomes empirically confident that data is saturated”.

Purposive Sampling was used in this research process, including deciding on the sample size and sample frame. Selection of participants based on the researcher’s judgement, based on the informative nature or “information power” of participants. The interview participants are senior managers, directors and chartered accountants employed by the insurance companies. Therefore, a small sample size of 30 is considered appropriate saturation for the interview process.

Malterud et al. (2016, p. 1756) advanced that researchers must consider “information power” when selecting the participants and sample sizes to avoid “producing that which is already known”. Information power is built on” (Malterud et al., 2016, p. 1756). “A study will need the least amount of participants when the study aim is narrow, if the combination of participants is highly specific for the study aim, it is supported by established theory, if the interview dialogue is strong and if the

analysis includes longitudinal in-depth exploration of narratives or discourse details” (Malterud et al., 2016, p. 1757). The more information power the sample holds the lower the number of participants needed. The more knowledgeable the participants, the richer the discussion and the lower the sample size needed.

The research saturation of the sample size of the interview data collection was 20 interviewees out of prospected respondents 30. This is the point where getting a further respondent was challenging and would not add any further insight and or additional information that would add value to what has been collected from the 20 respondents. The quality of responses received further became low quality and adjudged to be repetitive with no value added and the researcher had to focus on the high-quality 20 insurance companies This is where the researcher stopped interviewing any further insurance companies.

#### **4.9 Pilot study**

A pilot study is an attempt to predict a suitable sample size and enhance the research design through a small-scale preliminary study, before conducting a full-scale study. The pilot study was carried out on a small sample of members of the same population to evaluate the contents and context of the research questionnaire’s reliance on relevant theories and prior related studies, and what is understood by practitioners and academics. A pilot study provides researchers with beneficial comments and advice, which helps them to get a complete representation of the constructed research questionnaire and its validity.

A pilot test comprising fifteen (15) questionnaires was conducted on the selected staff of D Insurance Plc at their senior management WhatsApp chat forum of Abuja and Lagos staff. The 15 pilot-tested questionnaires formed part of the full data analysis. It was not only used to refine the questionnaire but also became part of the full data set. The purpose of this test was to establish whether the

instruments used in the research were relevant, comprehensible and applicable in all material particular to the respondents. Using Cronbach’s Alpha test, the reliability of the instruments was also established. 100% of all questionnaires were filled and returned. Results of the tests showed that the instruments used were to a large extent valid and reliable. The result of the reliability test showed a measure ranging from 0.988 to 0.785 for the individual variables as shown in Table 4.4 with an average score of 0.878 which indicates that the Cronbach alpha reliability test is “good” at the measurement scale. This measurement is acceptable as “good” under Cronbach’s Internal Consistency test scale.

This represented a 100% response from the total questionnaires distributed for the pilot study and 0.07% of the total questionnaires administered to the 18 respondents. Lagos was chosen as the area of the pilot study because of its metropolitan nature. As the commercial nerve centre of Nigeria, any test result obtained therefrom can be adjudged as being representative of the general business climate in Nigeria.

**Table 4.6: Pilot Study’s Reliability Statistics**

Research Variables	Type of variables	Dimensions of the variable	Acronym	Cronbach’s Alpha	No. of Items
Intellectual capital	Independent	Value-added Relational Capital	VARE	<b>0.988</b>	18
		Value-added Human Capital	VAHU	<b>0.863</b>	6
		Value-added Structural Capital	VAST	<b>0.785</b>	7
		Value-added Business Recipe (Strategic Capital)	VABU	<b>0.835</b>	12
Value performance	Dependent	Economic value added	EVA	<b>0.923</b>	5
		Market value added	MVA	<b>0.806</b>	5
		Future growth value	FGV	<b>0.915</b>	4
		Return on equity	ROE	<b>0.946</b>	5
		Return on assets	ROA	<b>0.809</b>	3

		Return on capital employed	ROCE	<b>0.904</b>	6
		Average score		<b>0.878</b>	71

**Source: Researcher's pilot field survey, 2022**

For the reliability test, the nearer the Cronbach's Alpha to 1 the more reliable the instrument. From Table 4.6 above, VARE's Cronbach's alpha reliability value for 18 variables is 0.988, VAHU's Cronbach's alpha reliability value for 6 variables is 0.863, VAST's reliability score for 7 variables is 0.785 and VABU's Cronbach alpha reliability test score for 12 variables is 0.835. Similarly, EVA Cronbach's alpha reliability value for 5 variables is 0.923, MVA Cronbach's alpha reliability value for 5 variables is 0.806, FGV Cronbach's alpha reliability value for 4 variables is 0.915, ROE Cronbach's alpha reliability value for 5 variables is 0.946, ROA Cronbach's alpha reliability value for 3 variables is 0.809 and ROCE Cronbach's alpha reliability value for 6 variables is 0.904. The scores indicate a good reliability fit as each dimension of the variable score and the average test value of 0.878 are all above 0.70, which is generally accepted as the benchmark score for the Cronbach alpha test of reliability.

Most comments received from respondents of the questionnaires on the pilot study are the quantum of the questions. The total questions of 78 were generally indicated to be on the high side for the ever-busy insurance staff, none the less they were willing to complete the questionnaires. The final version of the questionnaire was reviewed and decided to maintain all the questions, and then the questionnaire instrument was administered for the study.

#### **4.10 Data collection**

Data for this research were obtained from three sources, namely: two primary sources and one secondary source.

## **4.10.1 Primary Data**

### **4.10.1.1 Questionnaires**

The Primary data consisted of questionnaire responses that were obtained from 176 selected members of staff of the 44 insurance companies selected as the target population sample in this study. The main reason for including the primary data in the research was for the researcher to obtain direct information from staff members who are the direct subject of intellectual capital assessment. Their views were important to the work because the study of intellectual capital is fairly new and not practised in Nigeria in reporting terms. To make the research more relevant, therefore, the perception of workers to intellectual capital assessments and attributes was of great importance. A total of 176 questionnaires were distributed to the respondents.

### **4.10.1.2 Interview**

The other primary data was interview data from twenty (20) out of thirty (30) listed insurance companies in Lagos. Interview appointments could not be secured from the two insurance companies whose headquarters are based in Abuja.

The interviewer's guide began by introducing the objectives of the research, discussing the ethical and confidentiality issues and requesting permission to record the sessions. The managers all approved having the interview sessions recorded. All interviews were conducted at the manager's office or their meeting/conference room. This interview lasted for an average of thirty (30) minutes.

## **4.10.2 Secondary Data**

Secondary data were obtained from Audited Financial Reports of the selected 60 insurance companies as of 31st December 2020. These were obtained from publicly available websites of NAICOM and the Nigeria stock exchange. Six years of audited financial reports were prospected from 60 insurance companies but only 24 companies were obtained. The total number of audited financial reports obtained was 116 volumes. These were the main source of the secondary data. Other sources included



publications from the National Insurance Corporation of Nigeria (NAICOM) and the Nigeria Stock Exchange. The secondary data were included as the main source of data in the research because they gave a wide range of empirical information about the subject matter. Information obtained from secondary data was already polished and validated and therefore was free from any form of disinformation, misinformation and inaccuracies. Secondary data had undergone a series of manipulations before they were published for users of such information, hence they can be relied upon as sources of accurate 116 reports. The reports covered six years between 2015 and 2020. It was desirable to use both the primary and secondary data in evaluating intellectual capital to understand the disposition of the members of staff from the listed insurance companies.

#### **4.10.3 Timing of Primary Data Collection**

The dates questionnaire distribution and retrieval took place ranged from the 29<sup>th</sup> of June, 2022 and the 23<sup>rd</sup> of Sept, 2022 (two months and three weeks). This phase of questionnaire administration took a prolonged period due to challenges in terms of delays and hesitance experienced by the respondents. The interviews were scheduled and held during the period which included contacting and actual execution of interviews. This exercise lasted between the 29<sup>th</sup> of June, 2022 and the 13<sup>th</sup> of October, 2022 (three months and two weeks exactly). Interviewees were contacted via referrals (snowballing), phone calls, chats and personal visits to some respondents' offices. Interviewees were contacted between 2 to 6 times before interviews were eventually scheduled and conducted. In some cases, rejection of interview requests was eventually achieved.

Appointments fixed but not kept by interviewees are as attached in the file 'interviews not kept' The non-kept interviews are extended also till the 13<sup>th</sup> of October, 2022.

Manual transcription of the interviews was done immediately after interviews were conducted within the period stated above.

#### **4.11. Method of Data Collection**

The primary data were collected through the use of questionnaires and interviews which were administered to the respondents on a one-on-one basis. Questionnaires were distributed and collected by both the researcher and research assistants using particularly their judgements to identify the managers and supervisors in the accounting, human resources, information technology and marketing departments of the insurance companies. Due to limited time available and logistical challenges faced as a result of the diverse locations of the insurance companies in Lagos. The researcher decided to engage help for the dissemination and retrieval of questionnaires. This method was also used in other intellectual capital research in the past. (Anuonye, 2014, p. 120 Carrington, 2009 p.187). This approach was used to ensure that the respondents received and answered the questions independently and without bias. This was also to ensure a good response rate is achieved and minimised logistic challenges in Lagos.

The secondary data in the form of audited financial reports were obtained from the websites of the Nigeria Stock Exchange (NSE), insurance companies' websites and the National Insurance Commission of Nigeria (NAICOM).

The researcher used the internet to gather names of the listed insurance companies in Abuja and Lagos Nigeria through the websites of the National Insurance Commission and Nigeria Stock Exchanges in Abuja and Lagos. Further information regarding the relevant insurance companies was sourced from the African business trade magazine. The researcher logged into the individual websites of the listed insurance companies to download financial statements and annual reports for the relevant six years ended 31 December 2015 to 2020. This is in addition to regulatory information held by the National Insurance Commission of Nigeria (NAICOM) and the Stock Exchanges relating to the 46 listed insurance companies. This is made up of 44 profit-making insurance companies and 2 Sharia Takaful listed insurance companies. The financial statements and annual reports of these companies were downloaded freely as they are already in public space. Therefore, no permissions were required from

the listed insurance companies. The sourced documents from the internet formed the basis of the content analysis data phase of the research process. The information set also informed the selection of the sample of listed insurance companies for the interview phase of the data collection. The addresses, telephone numbers and email addresses were obtained from their websites.

The multiple sources of data collection are content analysis (Financial statements and annual reports), questionnaires and interviews. The researcher contacted the insurance companies to administer the questionnaire and arrange for an interview. Telephone contacts with these companies yielded little or no positive response from the company. It was gathered from the policy marketers of these insurance companies that a combination of different approaches is required to progress this data collection exercise in terms of administering the interview and questionnaire processes using the ethnography strategy. The researcher adopted a combination of online and physical distribution of the questionnaires and secured help from a family member to collect the completed questionnaires from some of the respondents. A fundamental challenge faced by the respondents was the unwillingness to engage electronically or by email for the return of the completed questionnaires. Most respondents for security reasons were more comfortable with the physical collection of the questionnaires from their premises.

Another strategy used to gain access to the respondents was through the brokers' marketing insurance policies and services. They were engaged by way of introduction to help penetrate the insurance companies as they know the industry better and can gain access to most of the respondents with less hindrance. This strategy paved good access.

#### **4.12. Questionnaires Administration and Retrieval**

Help and support of the brokers and marketers facilitated the distribution and retrieval of the research questionnaires and secured an interview arrangement or appointment with senior staff of each insurance company where possible.

The researcher and an assistant engaged with the insurance companies from the downloaded list of 60 (sixty) insurance companies sourced through the internet by the researcher. The total number of insurance firms covered was 44 (forty-four). The questionnaires (hard copies) were administered to each of these insurance companies physically. The total number of questionnaires administered were 176 (one hundred and seventy-six). The researcher and data retrieval assistants visited their assigned insurance companies and administered the questionnaires to managers who are either portfolio managers, chartered accountants, finance managers or human resource managers. The questionnaires were retrieved at the respective time agreed upon for collection by the respondents. Out of the 176 (one hundred and seventy-six) questionnaires distributed, 141 (one hundred and forty-one) were successfully retrieved while 35 (thirty-five) could not be retrieved within the time limit as shown in Table 4.7 below.

**Table 4.7 Questionnaires Administration and Retrieval Analysis**

<b>S/N</b>	<b>Description</b>	<b>Number</b>	<b>Percentage</b>
1	Retrieved Questionnaires	141	80.1%
2	Non-retrieved Questionnaires	35	19.9%
3	Total Administered Questionnaires	176	100%

Table 4.7 show the distribution of the questionnaires for the study. The returned questionnaires of 141 (representing 80.1%) were collated, coded and analysed through SPSS accordingly. See appendix

### **4.13 Interviews**

The researcher and a field support person assisted in making a few interview arrangements or appointments with some senior staff of the insurance companies. The researcher also used personal contacts through networking and friends in the insurance industry in Lagos to secure interview appointments with portfolio managers, chartered accountants, finance managers and human resource managers for the research. Some interviewees also referred the interviewer/researcher to other

colleagues in other insurance companies and so on, hence resulting in a snowballing arrangement. This method of referrer (snowballing) was adopted due to the frequent declinations that were received at the front desk of these insurance companies. In some cases, they requested that an official email be sent to the company's official email address for approval to make it formal before the interview can be granted. In this instance, emails were sent with a copy of the interview questions (document) as attachments to the official email addresses of the insurance companies accordingly and responses for approval or declination were gotten through phone calls upon chasing and follow-up for appointment. In some insurance companies, official emails were not required due to the referral approach used such as snowballing effect. Once an interview appointment is eventually secured, the soft copies of the interview questions were sent to the interviewee. In some cases, hard copies of the interview questions (document) were sent some days before the meeting day to allow the interviewee to familiarise themselves with the questions in readiness for the actual interview via Zoom or face-to-face. Most Zoom connections were declined for security reasons. The researcher/interviewer assistants connect with the respondents by telephone or move to the said insurance companies at the appointed date and time to meet with the interviewees (respondents) for the interview session. This session on average lasted about 30 minutes depending on how well the interviewee expressed him/herself on the questions. The interview sessions were conducted in the meeting room of the insurance companies or the office of the respondent's staff. The audio recordings of the interview sessions were recorded on smartphones and then downloaded to a folder on the computer. This folder was thereafter manually transcribed using the edited type of transcription from the audio recordings, respondent by respondent, to texts on a Word document in readiness for NVivo software analysis. This was done because it was an interview where few structural adjustments were made by removing some unnecessary information such as interviewees' pauses, laughter, signs and gestures. NVivo verbatim transcription was considered unsuitable for this type of interview as this would have included some errors that would have needed to be taken out and hence considered inefficient.

The tables 4.8 below shows the interview prospected and granted and the list of the insurance companies interviewed for the research.

**Table 4.8 Interview session solicitation**

<b>S/N</b>	<b>Description</b>	<b>Number</b>	<b>Percentage</b>
1	Interview granted/conducted	20	66.7
2	Interview not granted/conducted	10	33.3
3	Total interview prospected	30	100.0

At the beginning of the research, thirty (30) insurance companies were prospected for the interview however, due to time and other challenges that were highlighted in the limitation session, only twenty (20) insurance companies granted the interview while ten (10) declined and or did not respond in time for the interview. This represents 66.7% and 33.3% respectively.

#### **4.14 Data Analytical Technique**

The analysis of qualitative data is subject to potential bias imposed by the researcher in the interpretation and classification of the data (Lillis, 1999; Turner, 2017; Busetto,2020). It is therefore imperative that the researcher uses techniques to minimize such bias through the selection of an appropriate framework for analysing the data. Lillis (1999) cautions that no analytical framework can eliminate potential bias in the analysis of qualitative data, but steps should be taken to ensure that the results of the analysis are impartial and the data analysis is complete. The purpose of this section is to outline the procedures used in this study to minimize such bias in the interpretation and classification of the data and in ensuring that the data analysis was complete. Qualitative research can result in voluminous data, and the analysis of such requires reduction, summarization, classification and interpretation. Miles and Huberman (1994) outlined a systematic analytical protocol of data reduction, data display and conclusion drawing/verification and this technique was used in this study to improve impartiality and promote completeness of the data analysis. The use of such a framework provided an audit trail from transcripts to results of analyses; ensured that all cases used in the

evaluation supported propositions in the data; and provided a framework within which hypotheses could be tested and allowed for the emergence of new propositions as recommended by Lillis (1999).

Several analytical techniques have been identified in the literature that can be used to analyse case studies. The most popular techniques identified include pattern matching, explanation building and content analysis. Pattern matching is an analytical procedure for linking data to propositions where one is a theoretical pattern and the other is an observed or operational one (Campbell 1975; Tomaszewski,2020). This approach to data analysis requires the researcher to state a theoretical proposition and at least one alternative proposition before data collection. Case data which are gathered are compared to the predictions of the theory and predictions of the counter theory. Support is demonstrated if the case data matches the predicted theory more closely than the counter theory. Trochim (1989) argues that pattern matching is more useful for secondary re-analyses of data that were previously analysed with a more traditional approach. The analytical method of explanation-building is considered a form of pattern matching, in which the analysis of the case study is carried out by building an explanation of the case. Explanation-building is an interactive process that begins with a theoretical statement and refines and revises it. Pattern-matching and explanation-building as analytical techniques are more suited to explanatory case studies. The exploratory nature of this research and the focus on descriptive case studies renders these methods inappropriate for the analysis of the case data. Therefore, the researcher decided to use content analysis as the major technique for analysing the information presented in the case study. The following section outlines the rationale for the selection of content analysis and discusses how the researcher used content analysis in the research.

## **4.15 Reflexivity Research**

### **4.15.1 Introduction**

This section addressed the following questions what does reflexivity mean? How does it affect the way research is conducted? How reflexivity is applied practically? This deals with a conversation of

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the meaning of reflexivity and its significance in research. In simple terms, reflexivity is an awareness of the researcher's role in the practice of research and the way this is influenced by the object of the research, enabling the researcher to acknowledge how he or she affects both the research processes and outcomes.(Hamby,2018; Subramani,2019; Olmos-Vega et al., 2022) It is often termed as the process by which research turns back upon and takes account of itself (Alvesson, Hardy, & Harley, 2008; Weick, 2002), described by Clegg and Hardy (1996, p. 4) (Haynes, 2012, p.1) as 'ways of seeing which act back on and reflect existing ways of seeing'. Reflexivity involves awareness that the researcher and the object of study affect each other mutually and continually in the research process (Alvesson & Skoldburg, 2000). According to Kathryn Haynes (2012, p.1), researcher reflexivity involves thinking about how our thinking came to be, how pre-existing understanding is constantly revised in the light of new understandings, and how this, in turn, affects our research. The primary goal of reflexivity is to be aware of researcher biases and how they influence the outcome of the study. In some research approaches, you may be looking to reduce bias, whereas, in others, you may be using researcher bias as a central tool for deriving knowledge.

Reflexivity is vital when it comes to research. There are innumerable ways that a researcher's bias may influence the research. These include:

- The way data is collected
- The choice of data collection methods
- How the information is analysed
- How the data is conveyed

The reflexivity of this research has been broken down into phases before, during and after research.



#### **4.15.2 Before the Research**

The research topic was largely informed by the background of the researcher. The researcher is a chartered certified accountant with over thirty years of industry and accountancy practice experience. The researcher has been involved in the preparation of and auditing of financial statements, and companies' annual reports of small, medium and large organisations in Nigeria and in the United Kingdom. The researcher is quite experienced in accounting for intangible assets and goodwill in the balance sheets using the guidance of International Financial Reporting Standards (IFRS) and auditing standards. Intellectual Capital has intangibility components that show a fine line in definition with intangible assets within the professional accountants' community. The literature review of extant literature about Intellectual Capital in Nigeria revealed that there is limited research in Nigeria, especially within the insurance industry with mixed methods and multiple data sources.

Intellectual Capital is sometimes confused with the intangible asset which has measurement limitations as there is no accounting standard framework for recognition and measurement in the financial statements. "The worth of an Intel or Microsoft lies not in bricks and mortar, or even in inventories, but in another, intangible kind of asset: Intellectual Capital". (Edvinsson and Marlone.1997, pg.3). This is the motivation for choosing the topic. The researcher's accountancy experience guided and informed the choice of the research topic. There is extant research on Intellectual Capital in developed and various projects on Intellectual Capital in European and some Asian Countries. There is limited research on Intellectual Capital in developing countries, especially in Africa. Nigeria was chosen as a focus of the study of Intellectual Capital practice because the researcher is the origin of Nigeria, one of the most populous countries in Africa with diverse economies. The research proposal was written and guided by the researcher's accountancy experience and submitted to the ethics committee of the university in May 2020.

### **4.15.3 Research Journey:**

From the moment, the ethical approval was received from the university research committee, the research work commenced in earnest on 28<sup>th</sup> June 2020. This was the early part of the covid-19 lockdown in the United Kingdom and the supervision meetings went virtual via Microsoft Teams.

This research journey has been hampered and challenged badly by the advent of covid-19 pandemic. This was a global pandemic that saw all plans and proposals of this research drastically affected and caused a huge number of delays in the area of data collection. The covid-19 pandemic was unprecedented and challenged all written and unwritten rules of how people and organisations work and behave. Most government institutions and businesses were impacted and therefore affected a significant amount of the research data collection period. Due to global travel restrictions and various medical emergencies and cautions, there was a scare for everyone travelling. In addition to the travelling chaos in Nigeria, there was the unsafe nature of the political uncertainties ranging from kidnapping and fraudulent schemes in some parts of Nigeria. It was a huge risk to persons travelling from Western countries to Nigeria, placing you as a potential target for armed robbery and kidnapping.

The researcher travelled to Abuja and Lagos Nigeria in December 2020 for a preliminary survey and to identify potential participants for the research. This was mainly done through social networking and snowballing introductions from friends and family.

The research strategy for the primary data collection was impacted and resulted in a combination of ethnography and netnography. This was the use of fieldwork and internet medium in the collection of data. The researcher made good use of social contacts and networking to secure access to the respondents at the insurance companies in Lagos and Abuja. Further travels to Abuja and Lagos were done in the year 2022.

The researcher's accountancy and audit practice experience together with the literature review influenced a good part in the drafting of the questionnaires and interview questions. As a researcher

with many years of accountancy work experience, gaining access to the participants in different insurance companies was enhanced because of the number of social capital, friends and family contacts behind the researcher. The questionnaires were distributed to respondents by email and later by hard copies as getting them to complete them and retrieving them was a challenge resulting in initial little retrieval. To increase the response rate, the researcher decided to distribute and retrieve hard copies physically through a support agent. The interview process was the most challenging aspect of the research data collection as most interviewees were difficult to keep to appointments as agreed. Some interview sessions were conducted through Zoom, WhatsApp video, telephone and face-to-face. However, the researcher enjoyed an enormous amount of support and assistance from the interviewees and questionnaire participants during the interview and retrieval of the questionnaires. In the analysis of the data, using statistical tools was made easy because of the researcher's accounting background and data were adequately coded and analysed. Some of the respondents that are accountants were very open to discussing the research topic and gave their cooperation with ease. The issue of confidentiality and rules of anonymity was deeply emphasised during the interviewing process. As a result, the insurance companies are anonymised and their pseudo-names are used in the presentation of the data analysis outcome.

On the content analysis front, the researcher downloaded the annual financial reports of selected insurance companies. The researcher used accountancy skills and experience to review the financial statements of the insurance companies during the years under study. The performance indices such as Return on Assets (ROA), Return on Equity (ROE), and Return on Capital Employed (ROCE) were interpreted adequately and comprehended with intellectual capital.

Finally, the researcher was biased and influenced by the International Financial Reporting Standard and guidelines for accounting for intangible assets, especially as there is no accounting standard for Intellectual Capital due to a lack of acceptable metrics for measurement.

#### **4.16 Ethical considerations**

The authenticity of the information and data collected is of utmost importance, not only for the accuracy of the result but also to abide by the ethical framework. All the research-related activities were conducted ethically and legally and the researcher possessed an accurate and comprehensive knowledge of the subject (Creswell, 2012). The respondents were encouraged to voice their true knowledge or opinion about the subject. The identities of the respondents were not to be disclosed without their permission and the respondents' participation in the process would not put their career well-being at risk in any way. The researcher abided with respect and cooperated with the respondents involved and provided assurances and guarantees to keep all information collected safe. "It is imperative that all the research-related activities are conducted ethically and legally and the researcher should possess an accurate and comprehensive knowledge of the subject." (Creswell, 2003, 2012). The confidentiality and anonymisation of the participants were maintained throughout the research journey. The researcher used pseudo or disguised names together with coding to maintain the utmost confidentiality and anonymity of the participants in the research study. The researcher ensured respect and cooperated with the participants involved and provided assurances and guarantees to keep all information collected safely. The participants were encouraged to voice their true knowledge or opinion about the subject and were assured that their identity would not be disclosed without their permission and that their participation in the process would not put their well-being at risk in any circumstance. The participants had comfort in the reassurance that the data collected would only be used for this particular academic exercise. The participants were also availed of the researcher's contact details together with the researcher's supervisors' information for comfort and ease of participation.

Importantly, the researcher was guided by five core values of ethical research: - informed consent, voluntary participation, respect for privacy and confidentiality, justice and beneficence, and right of review. Participants were given the right to review and consider their stance regarding their

involvement and responses. The researcher also relied on his professional and social network to gain access to the participants on a one-to-one basis for the questionnaires to be completed.

The Nigerian culture is still developing in the area of attitude towards researchers who rely on collecting data for research studies. The sample of participants chosen are educated and enlightened individuals that appreciate the value of research and are willing to give their time to complete questionnaires for their organisation, especially when the data requested are already in the public domain in Lagos and Abuja. The culture and work ethics of Nigerians in terms of being available when required posed challenges as a result of infrastructural obstacles, such as the lack of good road traffic and transportation systems in Lagos and Abuja. For example, interview sessions had to be rescheduled. The timing of and adhering to scheduled appointments by Nigerians was a challenge as envisaged and indicated in the ethics approval application and this resulted in lost appointments and repeat visits to participants' offices in Lagos and Abuja. There were no formal local ethical procedures and considerations as to collating data in the organisation unless the official bureaucracy and retrieval system of data/information. The researcher relied on friends and family in terms of gaining access to listed insurance companies.

Collection of standing public and library data from corporate organisations that is officially free of charge involved some petty disbursements of cash in Lagos and Abuja which the researcher was happy to meet. The insurance companies that formed part of the sample did not have any concerns about discussing their financial data because it is contained in their annual report which are already presented on their respective websites and regulatory public domain. There were no trade secrets revealed or information which rival insurance companies do not already know about. Therefore, there was no risk or harm caused to the selected sample insurance companies in Lagos and Abuja. The research aims and rationale were explained to the participants in the summary sheet. The nature of the research was explained to the participants at the point of administering the questionnaires and also

at the point of the interview. There was a brief introduction on the first page of the questionnaire and interview sheet. (See Appendices 3 and 5a)

It clearly stated that participation in the questionnaire exercise and interview process was entirely voluntary and participants were also informed that they had the option to decline participation or opt out of the interview/questionnaire process at any time, Questionnaires half completed or uncompleted would be ignored from the sample size of the total participants. Any incomplete data recorded or stored would be expunged from any collection of data and information recorded.

A formal consent form was provided to participants to complete and sign off where necessary and possibly after reading and before completing the questionnaire and or before the interview sessions commenced. Participants were also free to use disguised names if uncomfortable disclosing their real names. The names and job titles of participants were anonymised and disguised and the insurance companies they represented were also anonymised, noted and recorded using their pseudo-names. However, the data subjects were anonymised and disguised to protect the identity of the participants in line with the Nigeria Data Protection Regulation 2019 (NDPR 2019) and Data Protection Act 2020 (DPA 2020). This is in line with the UK GDPR 2016 and DPA 2018.

#### **4.17 Chapter Summary**

The methodological approach to this research greatly enhanced its ability to extend the literature relating to Intellectual capital in developing countries. By using a mixed methods approach this research capitalised to some extent on the depth attributes of case study research and the breadth attributes of surveys. In particular, it resolved some of the inherent contradictions in Intellectual capital research findings, clarified key empirical phenomena represented by the constructs, and documented the social context in which the constructs interact to produce organisational outcomes. The next chapter outlines the steps the researcher used in designing the qualitative case study along the positivist's orientation.

A research method is a strategy of inquiry which moves from the underlying philosophical assumptions to research design and data collection. The choice of method influences how the researcher collects data. The population sample of this research is insurance companies listed on the Abuja and Lagos Stock Exchange in the period 2015-2020. The insurance sector was chosen because the capability and quality of human resources are needed in the continuity of financial performance and value creation of an insurance company. Compared with those in the manufacturing, financial and banking sectors, the human resources in the insurance sector have more direct communication with customers relating to the company's product offerings. Therefore, this sector is dependent on the level of Intellectual Capital, particularly in terms of Human Capital and Employee Capital. In this sector, the continuity of the company is dependent on the service provided to customers and the ability of each individual in offering the company's products and services.

The data used in this research are quantitative and qualitative. The technique for collecting data were questionnaires, interviews, web information and documentation. This is achieved by categorising and grouping various sources based on the annual reports published by the Stock Exchanges and National Insurance Commission (NAICOM) related to the matters investigated. The data were collected for the period of 1st January 2015 to 31<sup>st</sup> December 2020 inclusive. The analysis tool used was the multiple regression model, used to test the relationship between intellectual capital and the financial information and performance indicators of the insurance companies on the Abuja and Lagos Stock Exchange. The reason for choosing the multiple regression model was because the indicator of the independent variable used by the researcher, namely intellectual capital, cannot be measured using a linear regression model. In addition, it also considers the number of samples used or as many as thirty insurance companies.

## **CHAPTER FIVE**

### **CASE STUDY: LISTED INSURANCE COMPANIES**

#### **5.0 Introduction**

This chapter presents the history and brief background information of Nigeria, and a map of Nigeria featuring the cities of Abuja and Lagos, the research sites. It also includes an overview of insurance business practices and conduct in Nigeria. Nigerian Insurance Market, Review of the Tier Based Minimum Solvency Capital (TBMSC), Nigerian insurance business regulations and compliance, Regulatory Capitalisation and Solvency risks in the insurance business. The focus of this research is on listed insurance companies located in Abuja and Lagos. Two insurance companies are located in Abuja and forty-two are located in Lagos.

#### **5.1 History and the geographical location of Nigeria**

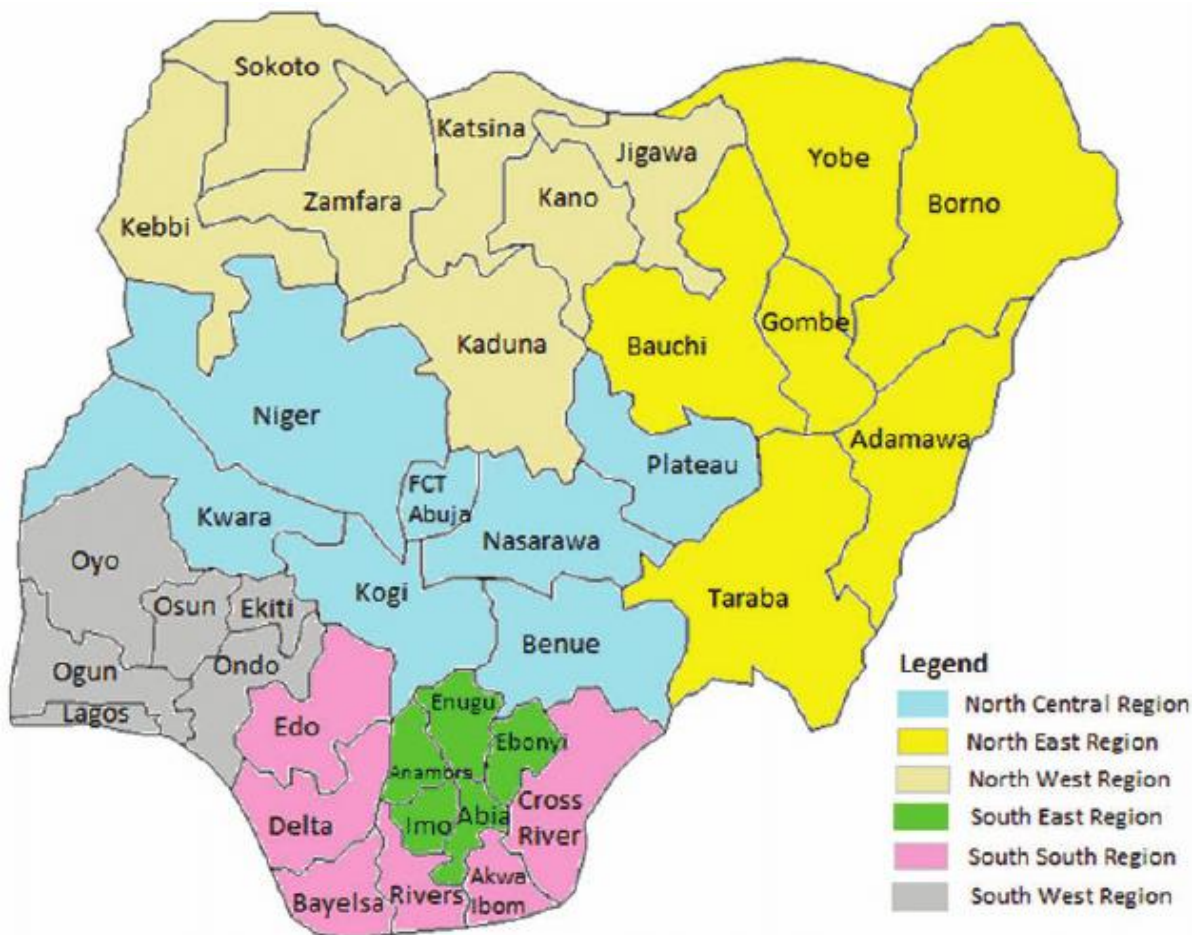
Nigeria is a country on the coast of West Africa, bordered by the Bight of Benin and the Gulf of Guinea in the south. Nigeria is bordered by Benin, Cameroon, Chad, and Niger, it shares maritime borders with Equatorial Guinea, Ghana, and São Tomé and Príncipe. With a 923,768 km<sup>2</sup> area, the country is almost four times the size of the UK or slightly more than twice the size of the U.S. state California. (Nations Online project, 2021)

Nigeria is a federation of 36 states with the federal capital territory - Abuja. The Federal Capital Territory, also known as FCT, is the capital of Nigeria. The Abuja FCT is not a state but is administered by a Federal Minister appointed by the President as part of his cabinet.

The Federal Republic of Nigeria (its official name) has a population of 211,400,704 people (World Bank, 2021) making it Africa's most populous country. Abuja, the capital city, is located in the centre of the North Central Region, while Lagos is the primary port and largest commercial city located in the South West Region. Lagos is Nigeria's commercial city.



The detailed map below shows Nigeria and the makeup of the 36 states and FCT, Abuja the national capital, and the state capitals.



**Figure 5.1:** Administrative Map of Nigeria - Nations Online Project  
**Source:** Nations Online Project, (2021)

Nigeria gained its independence from the British on 1st October 1960 and became a republic on 1<sup>st</sup> October 1963. Nigeria is a multi-ethnic and culturally diverse federation of 36 autonomous states and the Federal Capital Territory.

English is the official spoken language. The majority of the citizens speak Yoruba, Ibo, and Hausa. The majority of the population are people of faith with lineage in Christianity, Islam, and indigenous beliefs. The Gross Domestic Product (GDP) per capita of Nigeria is US \$ 2,085.10 (World Bank, 2021). The citizens have a life expectancy of 55 years for men and 56 years for women. The monetary currency unit is 1 Nigerian naira = 100 kobo (CBN, 2000; UN, 2010).

Following the Covid-19 pandemic-induced recession in 2020, Nigeria's economic growth recovered but macroeconomic stability weakened. Amidst global commodity shocks, a depreciating currency, trade restrictions, and monetisation of the deficit, inflation is surging and pushing millions of Nigerians into poverty.

According to the World Bank's fact book (2020) "In 2018, 40% of Nigerians (83 million people) lived below the poverty line, while another 25% (53 million) were vulnerable. With Nigeria's population growth continuing to outpace poverty reduction, the number of Nigerians living in extreme poverty is set to rise by 7.7 million between 2019 and 2024." Against the backdrop of poverty, since 2011, the security landscape has been shaped by the war against Boko Haram and other terrorist groups in the North East in addition to the incessant cases of banditry and kidnappings in the North West and parts of the South West. The South East continues to witness unrest resulting from separatist agitations (World Bank fact book, 2022).

Despite progress being made in Nigeria in socio-economic terms in recent years, its human capital development ranked 150 of 157 countries in the World Bank's 2020 Human Capital Index. (World Bank fact book, 2022). The country continues to face massive developmental challenges, including the need to reduce the dependency on oil and diversify the economy, address insufficient infrastructure, build strong and effective institutions, as well as address governance issues and public financial management systems.

Inequality, in terms of income and opportunities, remains high and has adversely affected poverty reduction. The lack of job opportunities is at the core of the high poverty levels, regional inequality, and social and political unrest. High inflation has also taken a toll on households' welfare and high prices in 2020-2022 are likely to have pushed an additional 8 million Nigerians into poverty.

## **5.2 Overview of Insurance Business in Nigeria**

The Nigerian insurance industry is one of the most extensive in the world. There are 67 fully registered insurance companies in Nigeria. They are further classified by the type of services they offer to the public, with 14 insurance companies centring on life insurance, and the other 53 focused on non-life insurance services. In addition to these companies, some individuals partake in the running of operations in the industry, comprising 460 insurance brokers and 15,000 individual insurance agents. (NAICOM, 2020)

The insurance industry in Nigeria is regulated by the National Insurance Commission, also known as NAICOM, which was established in 1997 and companies are incorporated under the prudential guidelines of the Companies and Allied Matters Act 1990. According to NAICOM, there are a total of 67 Insurance companies in Nigeria. Here is a complete list of all the Insurance Companies in Nigeria (Appendix 10).

## **5.3 Historical background of Insurance business in Nigeria**

According to Ufomadu (2017), “Despite the lingering apathy for insurance by the Nigerian populace, driven largely by cultural and religious beliefs, the industry remains resilient, recording a compounded annual growth rate (CAGR) of 10.2% in Gross Premium Income (GPI) since 2012. In 2016, the Industry’s GPI grew by an estimated 10% to ₦356 billion. Growth was upheld by the enforcement of compulsory insurance policies, particularly in the group life and motor insurance business lines. However, the industry’s performance was dampened by the downturn in Nigeria’s fortunes which had its roots in declining global crude oil prices since 2014. Life insurance business recorded significant feats since 2016 growth in annuities following the passage of the Pension Reform Act 2014 which allows pension funds administration (PFAs) to transfer funds for annuity purposes to insurance companies”. The impact of this Act was particularly evident in the 84% growth in life premiums in 2015. Nonetheless, the performance of the life business segment going forward will be

shaped by ongoing discussions between the National Pension Commission (PenCom) and the National Insurance Commission (NAICOM) on the custody of annuity funds.

The Insurance Industry's performance continues to be upheld by investment income which reached an estimated ₦54.5 billion (\$178.7 million @ ₦305/\$) in 2016 on the back of favourable yields on government securities. Given the tight monetary regime adopted by the Central Bank of Nigeria (CBN) in 2016 which is characterised by high interest rates, financial analysts and the Stock Exchange actors expect a marked growth in investment income as operators take advantage of higher-yielding government securities. The Nigerian financial market is relatively small and nascent with a limited number of financial instruments to invest in. The Nigerian financial market believes that investment options in the industry need to be broadened to take advantage of higher-yielding securities while protecting shareholder value. Overall, the Insurance Industry's Return on Equity (ROE) which hovered at around 8.4% in 2016 (FY2015: 8.6%) was expected to weaken slightly in 2017 as the economy recovers from the recession (Ufomadu, 2017). The industry's low ROE reflects its weak profitability compared to the average yield on 364-day treasury bills of 13.7% in 2016. In the researcher's opinion, profitability is hampered by weak investment returns, rising maintenance & acquisition expenses as well as increasing claims. Nonetheless, the financial market analysts projected a stable outlook for the Nigerian Insurance industry from the year 2017 onwards as the negative impact of the recession will be moderated by the positive factors. The 53% Naira devaluation in 2016 increased the value (and subsequently reduced the risk cover) of assets such as motor vehicles. These assets will need to be revalued to accommodate the impact of the devaluation and avoid "underinsurance". Underwriters are advising clients to increase premiums, especially on motor vehicle policies and the underwriters believed this will support growth from 2017. The Insurance underwriters noted however that weak consumer purchasing power may moderate expected growth. Overall, the insurance underwriters and financial market actors foresaw an 8% growth in GPI in 2017

on the back of a probable further devaluation and continued growth in the life business. (Ufomadu, 2017)

The Insurance market in 2019 grew at about 19.2 per cent, a five-point progression relative to its growth in the prior year posting over N508 billion as against N426 billion production made in 2018. The non-life sector accounted for 55.4 per cent albeit lower than its share in year 2017 (57.6%) and at a slower pace of 14.6 per cent, while the life sector in a record surge of a growth rate of 25.5 per cent accounted for about 44.6 per cent of the gross premium income generated during the period. The growth of the life sector is largely led by the Individual life business and the growing popularity of the Annuity business. The relative significance of the life sector in the market continues to grow as evidenced by its evolution from 31.4 per cent in 2015 and, consistently all through to its share status in 2019.

Typically, in an obvious reflection of the growing underwriting proficiency in the market, the claims segment reduced by eleven per cent (11%) in contrast to the increasing premium generation in which, it recorded N225.2 billion as against N252.2 billion in the year 2019. This is a constructive path that could drive the needed accumulation of surplus urgently desired for industry growth and investment attraction in the industry. The non-life led the fall in claims reported (-16%) as it contributed about 45.1 per cent relative to its share of 47.77 per cent in 2018, while the life insurance business which contributes a share of 54.9 per cent recorded a fall of six cents (-6%) relative to its previous position. A similar trend was recorded in the case of net claims paid in the year 2019 in which the life sector led the experience with a 56.7 per cent contribution to net claims paid as against 43.3 per cent share of the non-life business. This is a mirror of how the market operates in developed environments wherein the life segment drives the growth of the Insurance business. It is also good for the Nigerian economy which is in dire need of long-term investible funds provided by the life Insurance business.

The assets size of the sector sustained the positive trend in growth drive as it stood at N1.5 trillion indicating a 14.7 per cent growth relative to its prior position of N1.3 trillion. The ongoing recapitalisation measure of the Commission among others, is expected to result in a major surge of both capital and needed available assets that can adequately support the safety, growth and development of the largest economy in Africa and, ensure a rightful place of the Insurance sector in the Nigerian economy.

#### 5.4 Gross Premium Income

The Gross premium income in 2019 recorded a 19.2 per cent growth rate, the highest in five years and, more than five points progression relative to its prior position when it grew by 14.5 cent, to close at about N508.2 billion. As the most crucial element in the Insurance business model, gross premium income is also a major indicator of industry performance, therefore its growth is not only relevant but a pointer to the market resilience in periods of economic uncertainties of the Nigerian economy. Table 5.1 relates to the gross premium generation in the five years 2015 to 2019.

**Table 5.1 Gross Premium Income: Non-Life & Life Businesses: 2015 – 2019**

Currency: N Million Year	Fire	Gen. Accident	Motor	Marine	Oil & Gas	Misc.	Life	Total
2015	31,720.25	29,106.58	40,287.30	16,582.31	65,918.54	14,774.18	90,952.32	289,341.48
2016	38,249.72	29,875.53	41,428.05	16,515.76	56,481.38	18,997.24	124,566.34	326,114.02
2017	41,432.58	27,678.31	45,083.60	16,916.21	67,520.53	21,167.38	152,559.81	372,358.42
2018	45,036.60	28,782.71	40,149.33	26,472.04	82,236.87	22,733.62	180,799.76	426,210.93
2019	52,968.16	34,878.19	43,878.79	27,927.89	94,705.48	26,988.11	226,883.43	508,230.05

**Table 5.1 Gross Premium Income: Non-Life & Life Businesses: 2015 – 2019**

Source: NAICOM market statistical publication (2019).

The market progression maintained a sustained and steady positive trajectory all through as depicted by Table 1, with both Non-Life and Life (all sub-classes) businesses moving in a positive direction. While the insurance industry as a whole grew by 75.7 per cent from N289.3 billion in 2015 to N508.2 billion in the year 2019, the life section including individual, group and annuity businesses grew at about 149.5 per cent and, the non-life business grew by 41.8 per cent over the same period. From

Table 5.1, the total industry premium generated as of the fourth quarter of 2020 stood at N514.6 billion, representing a growing proportion of one and a quarter per cent (1.25%) to the actual figure of N508.2 billion recorded in 2019.

## **5.5 Nigerian Insurance Market World Ranking**

The Nigerian Insurance Market was however ranked 79th in the world based on the premium income performance by the AXCO (UK) insurance markets ranking, slumping two points from its 77th position in the previous period. (Best, 2020). This is understandable as the Nigerian economy was just beginning to recover from the economic slip it suffered in some immediate periods before. The insurance market consists of the buyers and sellers of insurance products with the intermediaries (agents and brokers) who bring the two together. In addition, there are also the regulators, representative bodies or organisations, consultants and technical advisers which are part and parcel of the market.

## **5.6 The Buyers**

According to the Nigerian insurers association journal “Anyone who has valid insurable interest i.e., a legally recognised relationship with property or pecuniary interest, can insure their interest. The relationship may arise through ownership, part-ownership or responsibility for goods, or liability to pay damages or certain benefits. In Nigeria the buyers of insurance can be segmented as follows: 1. Individuals and families, 2. Governments (federal, state, local) and their agencies, 3. Parastatals, 4. Multinationals, 5. Conglomerates Nigerian Insurers Association - Nigerian Insurance Market, 6. Manufacturing industrial concerns, 7. Small and medium scale industries, 8. The banking industry, 9. Health institutions, 10. Tourist and hospitality industries, hotels, 11. The transport industry, 12. Other corporate bodies, 13. Educational institutions, 14. Oil and energy industry. For marketing

purposes, the buyers can further be segmented to suit the strategy of the insurer or the insurance agent.”

## **5.7 The Sellers**

The sellers or suppliers of insurance are the insurance companies and the reinsurance companies. At present, there are 67 registered insurance companies and two registered reinsurance companies. Most insurance companies are incorporated under the Companies and Allied Matters Act 1990. (CAMA, 1990). Out of the 67 insurance companies, 14 companies underwrite life assurance businesses. The reinsurers provide technical security and capacity for the insurance companies and do not supply insurance directly to the consumers.

## **5.8 The Intermediaries (Agents)**

The intermediaries are mainly insurance brokers and insurance agents. According to Nigerian Insurers Association, the Nigerian Insurance markets statement: “There are 460 registered insurance brokers and about 15,000 insurance agents in Nigeria. The Nigerian insurance market has been described as a brokers' market because presently brokers control over 90 per cent of the premium income, leaving less than 10 per cent for insurance agents and even for a direct marketing channel by insurers”. However, insurance agents dominate the individual life insurance market. The banking industry has become a formidable channel for distributing insurance services not necessarily as intermediaries, but by facilitating a form of direct marketing by insurers through the bancassurance model. Participation by banks has also thus made mass merchandising of those insurance products possible. To enrich some of the financial products, banks offer certain insurance protection as additional benefits. For example, an investor may be promised three or four times the capital amount invested in case of death, payment of benefits in the event of an accident, payment of children's school fees, and insurance cover for goods bought on credit. To meet such obligations, insurance brokers apply part of the interest due to the investors to purchase insurance on their behalf from insurance companies. This is



however different from the universal Nigerian Insurers Association - Nigerian Insurance Market banking which implied direct involvement in insurance broking and underwriting.

## **5.9 Nigerian insurance business regulations and Compliance**

The statutory regulator of the insurance business in Nigeria is the National Insurance Commission (NAICOM).

The Commission was established by National Insurance Commission Act No. 1 1997 to ensure the effective administration, supervision, regulation and control of the insurance business in Nigeria. The Commission thus derives its powers from both the National Insurance Commission Act and the Insurance Act 2003. The functions of the Commission include: Establish standards for the conduct of insurance business in Nigeria; Approve rates of insurance premiums to be paid in respect of all classes of insurance business; Approve rates of commissions to be paid in respect of all classes of insurance business; Ensure adequate protection of strategic Government assets and other properties; Regulate transactions between insurers and reinsurers in Nigeria and outside Nigeria; Act as an adviser to the Federal Government on all insurance related matters; Approve standards, conditions and warranties applicable to all classes of insurance business; Protect insurance policy-holders and beneficiaries and third parties to insurance contracts; Contribute to the educational programmes of the Chartered Insurance Institute of Nigeria and the West African Insurance Institute.

The Commission registers and grants licences to insurance companies, insurance agents, insurance brokers, and loss adjusters. The inspectorate department of the Commission carries out routine and special investigations of operators to ensure that they operate according to the provisions of the Insurance Act 2003 the relevant Regulation and Policy Guidelines. In serious cases of breach of the provisions of the law and insolvency, the Commission has the power to suspend an operator from carrying on business, withdraw a licence, take over the management, or liquidate the company or firm.

## **5.10 Regulatory Capitalisation and solvency risks in the insurance business**

The need to halt the declining public confidence in the insurance sector since the last recapitalisation exercise was conducted in 2007 has been in the air for some time. There was calling for another regime of recapitalisation, since 2016 and 2017 following the official further devaluation of the Naira (Nigerian currency). The undercapitalisation in the insurance industry has become even more noticeable in the light of increasing forex-based risks and the inability of insurers to take the opportunities from the local content policy without undue exposures or meet contractual obligations to clients and other stakeholders. A major fallout of the last recapitalisation was the lacklustre performance of insurance companies as evidenced by inadequate returns to shareholders and zero share appreciation of companies quoted on the stock exchange. Following the clamour, the insurance companies met with NAICOM in February 2018 and agreed to a desirable recapitalisation. NAICOM hopes to achieve this recapitalisation through the introduction of a Tier Based Minimum Solvency Capital (TBMSC) programme as a complimentary measure to its ongoing implementation of the Risk-Based Supervision (RBS) programme.

Further to the directive of the President to review and advise the Council appropriately in respect of the newly introduced Tier-Based Minimum Solvency Capital (TBMSC) for the recapitalisation insurance companies, the Insurers' Committee of the National Insurance Commission presented its report on 25th July 2018. The Committee therefore sought to address at the onset, the impact of the new capital regime on insurance brokers and the insurance broking industry in general, and then the insurance companies presented its findings hereunder. The Tier Based Minimum Solvency Capital (TBMSC) was introduced in the third quarter of 2018 by the Commission. This was resisted by the operators, hence the circular on the TBMSC was cancelled and withdrawn with effect from 27<sup>th</sup> August 2018 by circular NAICOM/DPR/CIR/18/2018 of 23 November 2018 (Appendix 5A) dated 20 May 2019. This was replaced by Minimum Paid-up Share Capital Requirement with effect from 20 May 2019 by circular NAICOM/DPR/CIR/25/2019. (Appendix 5B)

The first attempts at studying Intellectual capital recognition sought to examine the amounts, types and trends of Intellectual capital recognition in Nigeria as a developing economy. The following sections discuss studies of Intellectual capital recognition in Nigeria.

### **5.11 Intellectual Capital (IC) Studies in Nigeria**

Some of the studies of Intellectual capital disclosure and reporting which have been conducted in Nigeria are listed as follows: Anuonye, (2015, 2016); Kurfi et al, (2017); Kori (2017); Suraj & Bontis (2012); Uadiale & Uwauigbe (2011); Onafalujo, Eke & Akinlabi, (2011); Epetimehin & Ekundayo (2011).

In Nigeria, studies on the exploration of the relevance of intellectual capital recognition in the financial statements of listed insurance companies specifically in the Abuja and Lagos Stock Exchanges are currently not available. There have been studies on Intellectual Capital in Nigeria relating to other areas of focus regarding Intellectual Capital (see Table 5.2 below). This confirms that Intellectual Capital is not a new phenomenon in Nigeria.

Kurfi et al. (2017) studied the impact of intellectual capital on the financial performance of listed Nigerian food products companies over five years 2009 to 2014 and concluded that there was a positive significant influence of Intellectual Capital on financial performance. Structural capital and capital employed influenced the financial performance of listed companies in the Nigerian food industry. This study focused on financial performance measurements using return on assets (ROA) with Pulic's model of Value Added Intellectual Coefficient for the benefit of all stakeholders. Only secondary data from the 2013 Fact Book of the Nigeria Stock Exchange was used. It did not mention the state of the assets, whether the assets have been fully depreciated or not and the type of assets. It appears that this study considered profit and not loss of the food companies. Intellectual Capital can still exist in a loss-making company even in newly floated companies in the stock exchanges. The outcome would probably be different if loss-making companies were utilised in the study. This

research shall look into investors' perceptive on the value creation of listed insurance companies whether positive or negative returns and will adopt primary data collection such as interviews and questionnaires.

Kori (2017) researched business value creation for SME architectural firms in Nigeria using the Intellectual capital development model using a case study on six firms from nine states of Nigeria. The outcome was that there is a significant relationship between business value creation and the development of intellectual capital of SME architectural firms in Nigeria. The emphasis of this study is on knowledge base innovation for the development of Intellectual Capital in nine out of thirty-six states plus the capital territory of Nigeria. This is a one-time spot check. No range of period was covered in this study. This is a case study that covered six firms in nine states out of thirty-six states plus the Federal Capital Territory in Nigeria. These firms were not listed and the criteria for the selection of the firms was not stated. The financial statements were not audited and not used in the study. Perhaps, a different conclusion would have resulted if the above criteria were considered. This research will focus on listed insurance companies in Abuja and Lagos.

Anuonye (2015) researched Intellectual Capital measurement, using earnings-per-share models of listed insurance firms in Nigeria. The conclusion reached was that insurance companies in Nigeria do not measure and apply Intellectual Capital in their performance measurement and firms would improve in performance if Intellectual Capital is recognised and recorded in their books. This study's industry of focus is quoted insurance companies in Nigeria but not specifically those listed on the Abuja and Lagos stock exchanges. It focused on performance measurements using earnings per share (EPS) with emphasis on the survey of employees of the 18 listed insurance companies in Nigeria. This study was carried out by surveying the employees of three departments of the insurance companies. There was no period range indicated as covered by this study. It appears to have been a spot survey on employees at no given period. The class and level of the employee were not stated and

the specific stock exchange was not indicated. Earning per shares model was used and no recognition was given to loss-making insurance companies. The level of earnings varied among the listed insurance companies. The size of the shareholding and the size and quality of the audit firm was not stated. The individual insurance companies' uniqueness together with the quality of staff including expertise and skills was not indicated. The purposive sampling technique was based on an ex post facto research design. All noted attributes absent from the study would have influenced the outcome of the study if taken into consideration. This research will look into investors' points of view and focus on insurance companies listed on the Abuja and Lagos stock exchanges. This research will cover a period of six years from 2015 to 2020 and include the year 2018 when the recapitalisation of Insurance companies together with the Tier Based Minimum Solvency Capital (TBMSC) regime were introduced.

Anuonye (2016), studied the effect of Intellectual Capital on the Return on Assets (ROA) of insurance firms in Nigeria. The purpose of this study is to evaluate the effect of Intellectual capital in the value creation of insurance firms in Nigeria using their Return on Assets (ROA). The study concluded that Human Capital, Structural Capital and Relational Capital each had a statistically weak relationship with the return on assets of insurance companies in Nigeria. Anuonye's study is about insurance companies in Nigeria whether listed or unlisted. The study did not mention whether companies were life or non-life insurance business. This study used the Return on Assets (ROA) model. The Returns used must have been profit only and not losses. The composition of the assets was not mentioned. The assets must have been fully depreciated and have no realisable or resale value. The outcome would have been different if the factors were considered. Anuonye's study is more about the impact of Intellectual Capital on insurance companies in Nigeria, whilst this research focuses on the relevance of Intellectual Capital in the financial statements of listed insurance companies in Abuja and Lagos.

Suraj & Bontis (2012) worked on managing Intellectual Capital in Nigerian telecommunication companies. The outcome was that Nigerian telecommunication companies mostly emphasised the use

of customer capital as shown by market research and customer relationship management to boost their business performance. This study emphasised the relational capital category of Intellectual Capital and demonstrates that Intellectual Capital disclosure in other areas of business in Nigeria. It focused on one category of Intellectual Capital which is relational capital and reference was made to Human and Structural Capital of telecommunication companies in Nigeria. The location of the companies was not stated. The companies were not listed. Therefore, data may not be reliable as no audit was required. The stratified sampling method was used only. No other methods were used. The outcome would have been different if the above criteria were considered in the study. This research is focused on listed insurance companies in Abuja and Lagos stock exchanges.

Uadiale & Uwuigbe (2011) found out in their study of Intellectual Capital and business performance of 32 quoted companies in Nigeria using data from audited financial statements that Intellectual capital has a positive and significant relationship with the performance of business organisations in Nigeria. Their study used audited financial statements with Intellectual Capital components of listed companies from mixed industries. Only audited financial statements were used with Intellectual Capital components and the size of the companies were not mentioned. Investors' perceptions were ignored. Secondary data were used for this study. Similar to Uadiale's & Uwuigbe's study, this research used audited financial statements of listed insurance companies listed on the Abuja and Lagos Stock Exchanges.

Onafalajo, Eke & Akinlabi (2011) observed that accounting in insurance companies, using the new International Financial Reporting Standard (IFRS) recommendations is relevant to the Nigerian financial environment, but argue that the application of IFRS through the use of observable and unobservable market inputs as well as the experience inconsistency of operators may be difficult in the short run but achievable in the long run. They recognised that the failure of employees to sustain good ethical practices in insurance firms in Nigeria adversely affects the insurance practice. Though such unethical practices may work in the immediate and short term to reduce the number of claims

payable, such practices will no doubt undermine the confidence of current and prospective clients and this would inevitably bring about adverse effects on the reputation and performance of the industry in the medium and long term. Onafalujo, Eke & Akinlabi's study appears to focus on employees' ethical matters which impacts on reputation and hence affects Intellectual Capital indirectly. The study commented generally on insurance companies in Nigeria and their effects on the IFRS and did not mention whether the insurance companies were listed or unlisted. This research shall focus on the perception of the investors of large listed insurance companies in Abuja and Lagos and unethical practices of employees would not be considered.

In a study on organisational knowledge management as a strategy for Nigerian insurance companies, Epetimehin & Ekundayo (2011) observed that Intellectual Capital, a vital corporate asset, will melt away unless companies do something to stop the brain drain and retain critical knowledge. They opined that the survival of insurance companies in Nigeria is dependent upon the resolution of the workforce (Intellectual Capital) to eliminate unethical practices which are resorted to avoiding liability under insurance policies.

The study related to organisational knowledge management for insurance companies in Nigeria focuses on human resources and brain drain within the insurance industry in Nigeria generally. It is not known whether listed or unlisted insurance companies were identified or the period covered by this study. The relevance of all the above studies to this research is that they inform the foundational base that Intellectual Capital studies have been conducted in Nigeria and that Intellectual Capital's recognition in the financial statements is non-existent.

Table 5.2 Intellectual Capital (IC) studies in Nigeria are shown below to identify gaps that exist in the area of Intellectual Capital in Nigeria, especially in Abuja and Lagos cities.

**Table 5.2: Intellectual Capital (IC) Studies in Nigeria**

<b>Industry</b>	<b>Studies</b>	<b>Outcome/findings</b>	<b>References</b>
Listed food products companies in Nigeria Stock exchange	Impact of intellectual capital (IC) on the financial performance of listed food products companies	The positive influence of IC financial performance of structural capital and Return on capital employed (ROCE) of listed food companies	Kurfi et al. (2017)
Unlisted architectural SME firms	Business value creation for SME architectural firms. Case study of 6 firms	The positive significant relationship between business value creation and the development of Intellectual capital of SME	Kori (2017)
Listed Insurance firms on the Nigeria Stock exchange	Intellectual capital measurements, using earnings per share (EPS) models for performance measurement	Insurance firms do not measure and apply Intellectual capital and it is not recorded in books	Anuonye (2015)
Listed Insurance firms on the Nigeria Stock exchange	Effect of Intellectual Capital (IC) on Return on Assets (ROA) value creation of insurance firms in Nigeria.	Human Capital, Structural Capital, and Relational Capital had a weak relationship with ROA statistically.	Anuonye (2016)
Listed and Unlisted telecommunication companies in Nigeria's stock exchange	Management of intellectual capital in Nigerian telecommunication companies	The use of customer and relationship capital resulted in boosting business performance	Suraj & Bontis (2012)



<b>Industry</b>	<b>Studies</b>	<b>Outcome/findings</b>	<b>References</b>
Listed and unlisted insurance companies	Using International Financial Reporting Standard (IFRS) in accounting for employees' ethical practices in Insurance companies	The unethical practice of employees will bring adverse effects on the company's reputation	Akinlabi et al. (2011)
Listed and Unlisted Insurance companies	Organisational knowledge management as a strategy for insurance companies	Intellectual capital is vital and if not managed well will lead to brain drain and unethical practices of the workforce (human capital)	Epetimehin & Ekundayo (2011)
32 Listed mixed companies	Intellectual Capital and business performance	Intellectual capital has a positive and significant relationship with the performance of a business	Uadiale & Uwuigbe (2011)

Researcher adapted (2022)

## 5.12 Chapter Summary

This research covers the period 1<sup>st</sup> January 2015 to 31 December 2020. This was a period with diverse turbulent and economic upheaval together with the added challenges caused by the covid-19 pandemic. This period was unique where several economic events took place including declining insurance business and devaluation of the Nigerian currency together with fluctuating foreign exchanges. The recapitalisation scheme of TBMSC operated for a while, the Risk-Based Capital (RBC) regime continued due to the cancellation of the TBMSC, then changed to the Minimum Paid up Share Capital regime. This is the first Intellectual Capital research relating to listed insurance companies in Abuja and Lagos covering such a period of turbulent and unstable socio-economic events. This is a gap on its own. The only similar research conducted on Intellectual Capital on listed insurance companies covered the years 2007 to 2011. Therefore, this research is the only known

Intellectual Capital research on listed insurance companies in Nigeria that covered the six years from 1<sup>st</sup> January 2015 to 31<sup>st</sup> December 2020.

## **CHAPTER SIX**

### **DATA ANALYSIS, RESULTS AND FINDINGS**

#### **6.1 Introduction**

This chapter includes the data analysis, results and findings using all the research techniques adopted for this research process. This is broken down into three main phases; the primary data retrieved from the questionnaires followed by the primary data retrieved from the interview and then the data sourced from the financial statements and annual reports from the case study insurance companies. This third stage is further processed by quantitative and qualitative data analytical tools, SPSS, NVivo software and Word Count.

#### **6.1.1 Questionnaire Results and Analyses**

##### **6.1.1.1 Operationalisation of the variables**

The raw SPSS data contained 78 items, out of which items 1 to 7 deal with demographic indicators. Items 8 to 78 represent independent and dependent variables, which are described below:

##### **6.1.1.2 Independent Variables**

These are independent variables represented by items coded in the SPSS file and are elaborated on below:

VARE: - This is represented by respondents' responses to items 8 to 25 in the questionnaire.

VAHU: - This is represented by respondents' responses to items 26 to 31.

VAST: - This is represented by respondents' responses to items 32 to 38.

VABU: - This is represented by respondents' responses to items 39 to 50.

Intellectual Capital: - This is represented by all four types of Intellectual Capital components (i.e., Relational Capital, Human Capital, Structural Capital and Business recipe (Strategic capital)

### **6.1.1.3 Dependent Variables**

These are dependent variables represented by items coded in the SPSS file and are elaborated on below:

EVA: - This is represented by items 51 to 55.

MVA: - This is represented by respondents' responses to items 56 to 60.

FGV: - This is represented by respondents' responses to items 61 to 64.

ROE: - This is represented by respondents' responses to items 65 to 69.

ROA: - This is represented by respondents' responses to items 70 to 72.

ROCE: - This is represented by respondents' responses to items 73 to 78.

### **6.1.1.4 Dependent Variables Required**

These are the dependent variables that are required to be derived from the Hypotheses for testing purposes and are determined as elaborated below:

**Profitability:** - This is made up of the respondents' opinions on items 65 to 78. These responses represent the respondents' opinions on the respective company's profitability.

**Valuation:** - This represents Capital Market Valuation (CMV) and it is constituted of the respondents' responses to the questions.

Variables: -

Variable VARE: - Value Added Relational Capital

Variable VAHU: - Value Added Human Capital

Variable VAST: - Structural Capital Value Added

Variable VABU: - Value Added Business Recipe (Strategic capital)

Company\_Age\_as\_at\_2020: - Company Age from NAICOM and website.

Company Leverage: - Company leverage of company as per annual reports.

Intellectual Capital: Intellectual Capital of each Company, determined by the responses of three respondents allocated to each company.

### **6.1.2 Analysis of Questionnaire Data**

This chapter explains how the data necessary for this research were collected, analysed and interpreted for consumption. The research instrument used for the quantitative aspect of this work was questionnaires. 176 questionnaires were given out and 141 questionnaires were returned therefore, 141 questionnaires were analysed. For the data analysis (Quantitative), IBM SPSS version 26 was used. To achieve the hypotheses and objectives of this research, descriptive and inferential statistics were carried out using IBM SPSS version 26. The demographics were represented descriptively in the form of frequency, percentage and bar charts while hypotheses two, three, five and six were analysed using multiple linear regression analysis and hypothesis four was analysed using correlation analysis.

#### **6.1.2.1 Respondents' Demography**

Table 6.1 shows the demography of the respondents, which includes information such as gender, age group, highest education qualification, professional qualification, position in the organisation, years of service in the organisation and the size of the organisation.

The gender of the respondents was almost equal distribution depicting that there was no gender bias in administering the questionnaires. 76 males and 63 females completed the questionnaires 53.9% and 44.7% respectively, and 2 (1.4%) respondents decided not to disclose their gender. This totalled the number of respondents to 141. Five different age groups were considered and the distribution in years is as follows: 18-28 (8 respondents, 5.7%), 29-39 (33 respondents, 23.4%), 40-49 (71 respondents, 50.4%), 50-59 (26 respondents, 18.4%), 60 and above (3 respondents, 2.1%).

The educational qualification (highest) of the respondents represented are GCE/WASCE/SSCE (0 respondents, 0%), OND/NCE (1 respondent, 0.7%), HND (43 respondents, 30.5%), BSc/BA (68 respondents, 48.2%), MSc/MBA (0 respondents, 0%), PhD/DBA (28 respondents, 19.9%) while 1 respondent did not specify.

Considering the highest educational qualification of the respondents, it could be deduced that the respondents who filled the questionnaires are likely to have a high level of understanding while answering the questionnaires, as 68 (48.2%) of them are BSc/BA degree holders. 61 respondents held at least one professional qualification relevant to the insurance industry. The distribution follows this order: ACA (4 respondents, 2.8%), CITN (3 respondents, 2.1%), ANAN (7 respondents, 25.0%), CIBN (9 respondents, 6.4%), NIM (38 respondents, 27.0%), Others/None (69 respondents, 48.9%) and 6 respondents who did not disclose their professional qualification. Considering the position of the respondents in their organisation, there are 17 respondents (12.1% ) who are junior staff, 40 respondents (28.4%) who are senior staff, 65 respondents (46.1%) who are managers, 8 respondents (5.7%) who are Non-Executive Directors, 2 respondents (1.4%) who are executive directors, 4 respondents (2.8%) who are MDs/CEOs, 4 respondents (2.8%) specified the positions they occupy in their organisation while 1 respondent (0.7%) did not disclose.

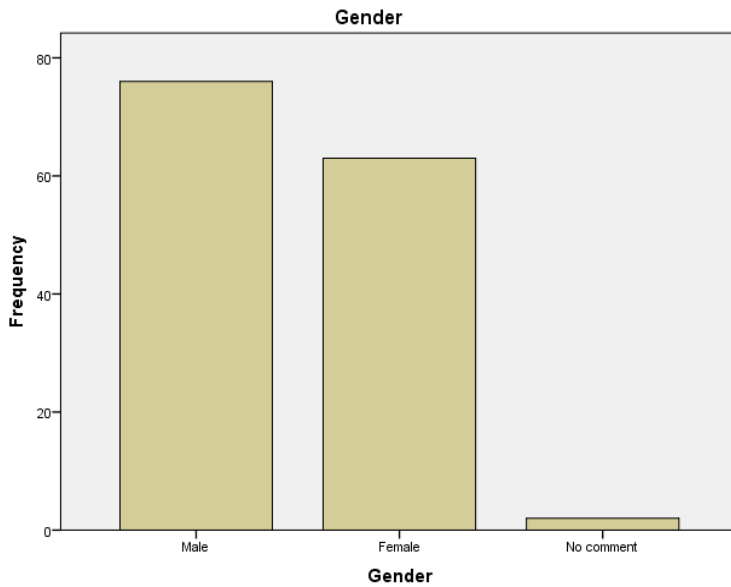
The length of service spent in a particular insurance company can be used to measure the level of experience of individuals. Therefore, in this research, 86 respondents (60%) disclosed their service year range of from six years to more than 30 years, which is cumulative of four different ranges (6 years to 10 years - 49 respondents, 34.8%, 11 years to 20 years- 25 respondents, 17.7%, 21 years to 30 years- 10 respondents, 7.1%, 30 years and above- 2 respondents, 1.4%). The remaining are as follows: Less than 6 months (7 respondents, 5.0%), more than 6 months (48 respondents, 34.0). The number of employees in an organisation mirrors the size of the organisation and therefore this could reflect the plethora of business transactions and a broad range of experience. Relative to this research, above 70% of the respondents work in large-sized companies with staff strength ranging from 500 to above 1000. Hence, a wide range of experienced opinions was achieved. 10 respondents, 7.1%, work in a company with fewer than 100 employees, 27 respondents, 19.1% (101-500), 20 respondents, 14.2% (501-800), 50 respondents, 35.5% (801-1000) and 34 respondents, 24.1% (above 1000). The above data are shown in tables and bar charts below.

**Table 6.1: Respondents' demography**

<b>Variable</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Gender</b>		
Male	76	53.9
Female	63	44.7
No comment	2	1.4
<b>Total</b>	<b>141</b>	<b>100</b>
<b>Age</b>		
18-28	8	5.7
29-39	33	23.4
40-49	71	50.4
50-59	26	18.4
60 and above	3	2.1
<b>Total</b>	<b>141</b>	<b>100</b>
<b>Highest Educational Qualification</b>		
GCE/WASCE/SSCE	0	0
OND/NCE	1	0.7
BSc. /BA	68	48.2

<b>Variable</b>	<b>Frequency</b>	<b>Percentage</b>
MSc. /MBA	0	0
PhD/DBA	28	19.9
Missing	1	0.7
<b>TOTAL</b>	<b>141</b>	<b>100</b>
<b>Professional Qualification</b>		
ACA	4	2.8
CITN	3	2.1
ANAN	7	5.0
CIBN	9	6.4
NIM	38	27
Others/None	69	48.9
<b>Total</b>	<b>141</b>	<b>100</b>
<b>Position in Organisation</b>		
Junior Staff	17	12.1
Senior Staff	40	28.4
Manager	65	46.4
Non-Executive Director	8	5.7
Executive Director	2	1.4
MD/CEO	4	2.8
Others	4	2.8
Missing	1	0.7
<b>TOTAL</b>	<b>141</b>	<b>100</b>
<b>Service Year</b>		
Less than 6 months	7	5
More than 6 months to 5 years	48	34
6 years to 10 years	49	34.8
11 years to 20 years	25	17.7
21 years to 30 years	10	7.1
30 years and above	2	1.4
<b>TOTAL</b>	<b>141</b>	<b>100</b>
<b>Staff Strength</b>		
Less than 100	10	7.1
101-500	27	19.1
501-800	20	14.2
801-1000	50	35.5
More than 1000	34	24.1
<b>TOTAL</b>	<b>141</b>	<b>100</b>

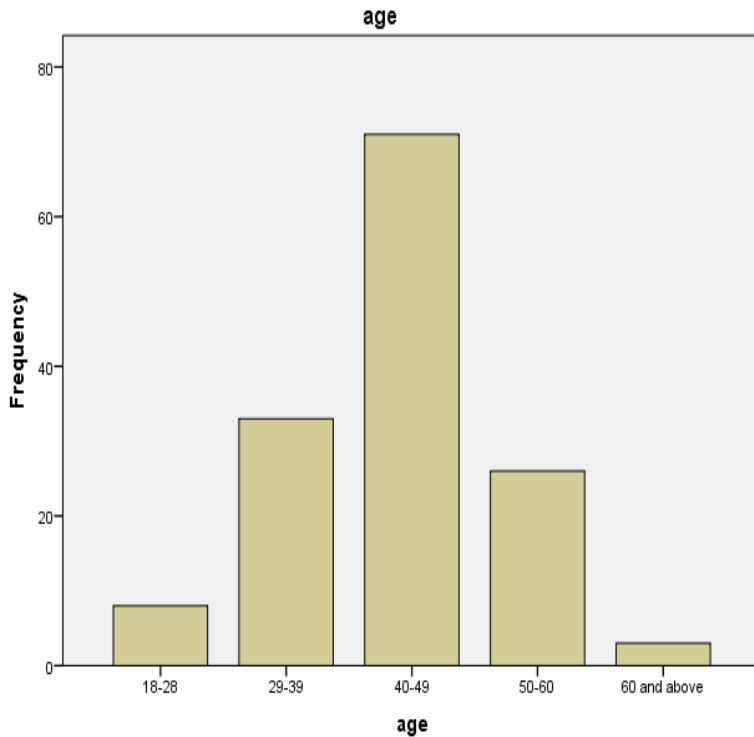
Table 6.1 showed the statistical data make-up of the demography of the questionnaire's respondents with the various frequencies and proportional percentages as it relates to the data collated. A detailed narrative of the data is as stated above.



**Figure 6.1: Bar Chart for Gender**

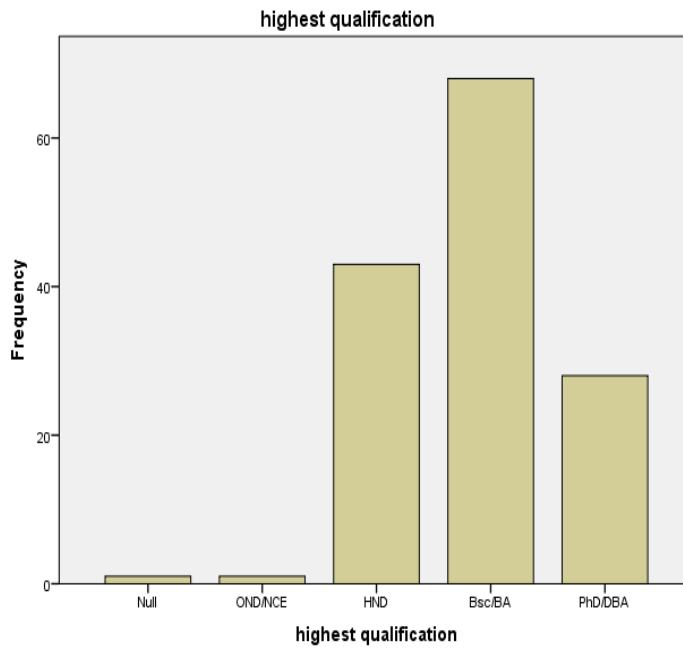
The bar chart showed that a large number of the demography are men and very few respondents decided not to disclose their gender. The questionnaire did not provide for any other gender type as it is customary for only two gender types to be recognised in Nigerian society.





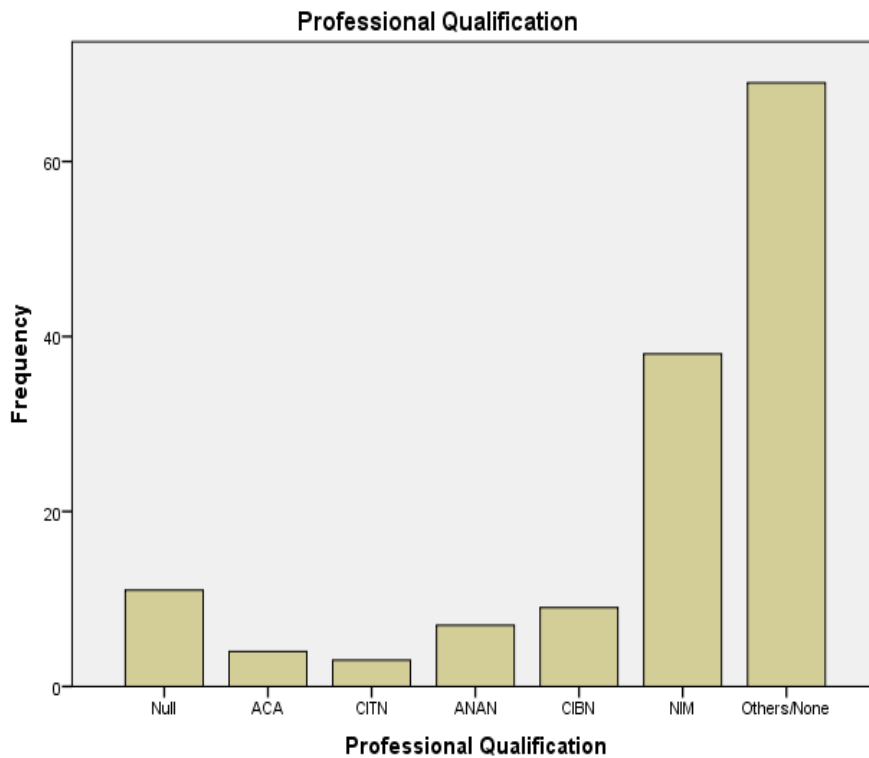
**Figure 6.2 Bar Chart for Age**

The above bar chart indicated a majority of the respondents are within the age bracket of 40 to 49 years old. The smallest group of respondents in an age category is those over 60 years old. Over 50% represent the range of 40 to 49 years old, followed by 29 to 39 years and 50 to 60 years old. These respondents are considered to be mature and of working-class status with above-average life experience to participate in the survey.



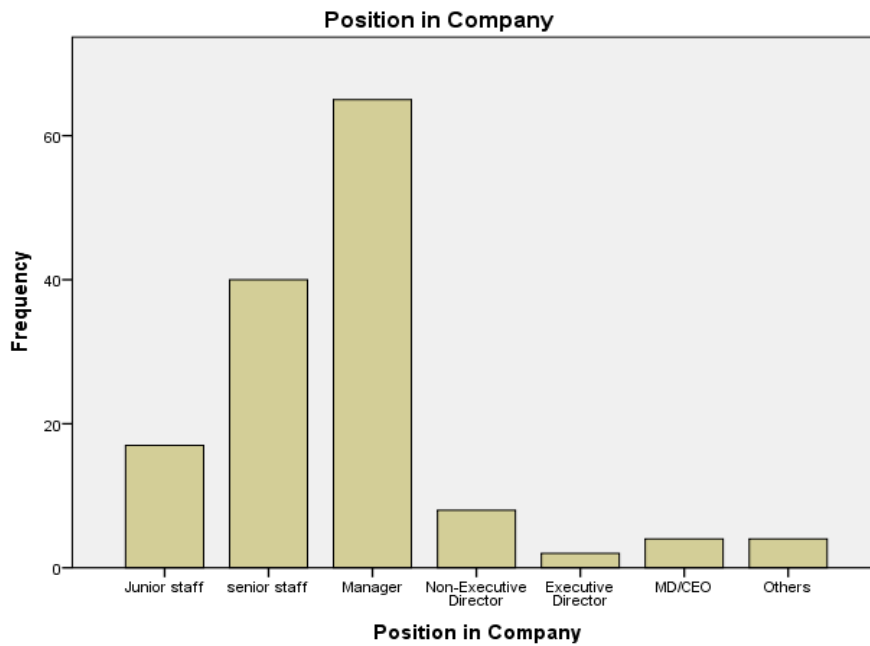
**Figure 6.3: Bar Chart for Highest Qualification**

The above bar chart indicates the majority of the respondents hold at least a first degree. The least number did not disclose their qualification. However, this number does not show them in gender qualification.



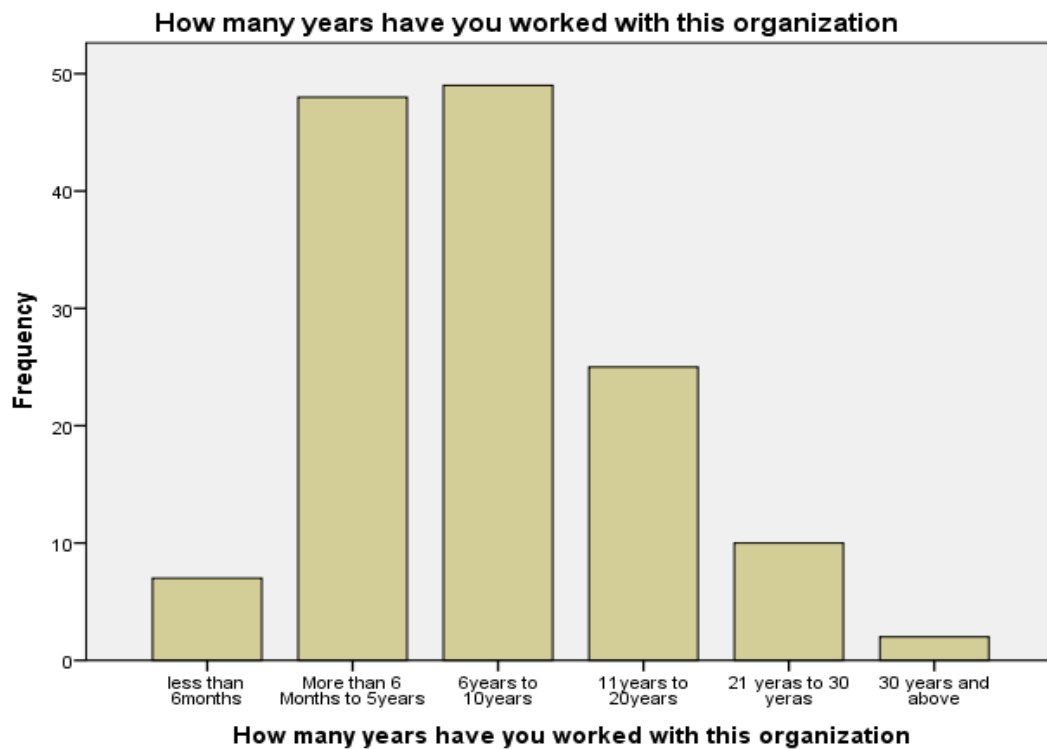
**Figure 6.4 Bar Chart for Professional Qualification**

Those with “other professional qualifications” were greater in number compared with those with specifically stated professional qualifications. These other qualifications are a combination of the insurance industry and related qualifications. This group is followed in size by MBA holders. This indicates that respondents have adequate managerial qualifications to be able to answer the questionnaires.



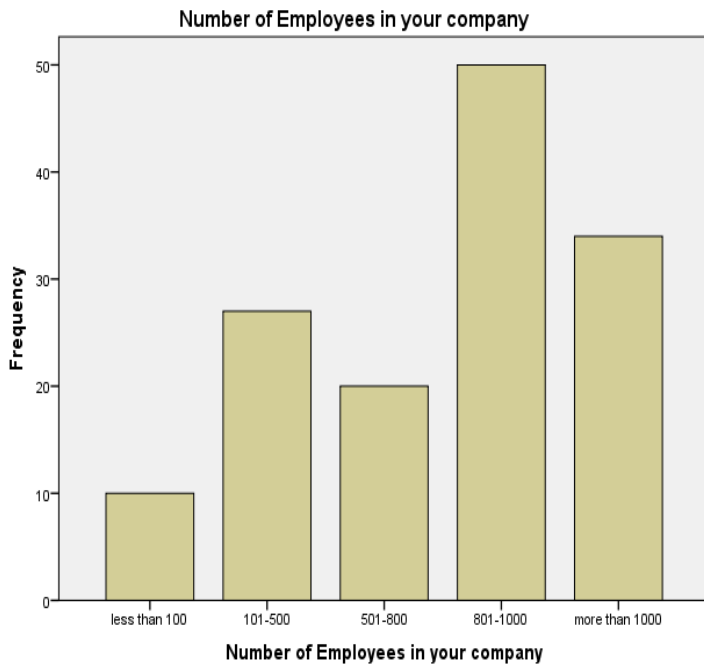
**Figure 6.5: Bar Chart for the position in the insurance company**

Figure 6.5 indicates the majority of the respondents are managers with the executive director group being the lowest in number. This showed the respondents are people with a sense of responsibility and have knowledge of intellectual capital components and indices.



**Figure 6.6: Bar Chart for service years**

Figure 6.6 indicates that a large number of the respondents have worked for their company for 6 to 10 years. The smallest group had over 30 years of service experience. This showed that the respondents have a good number of years of experience working in their respective insurance companies which qualifies them with a good understanding of the questionnaires.



**Figure 6.7 Bar Chart Staff strength**

Figure 6.7 showed that respondents worked for large insurance companies with a staff strength of 800 to 1000. This is followed by insurance companies with staff numbers of over 1000. Few of the respondents are from insurance companies with less than 100 staff.

### 6.1.2.2 Descriptive Statistics of Variables “Value Added Relational Capital (VARE)”

**Table 6.2: Descriptive statistics on Value Added Relational Capital (VARE)**

VARE	NAA	TASE	TAME	TALE	TAVLE	N	Mean	Rank
Our insurance company is heavily customer and market focus	1	3	15	66	56	141	4.23	1 <sup>st</sup>
Our insurance company tries to offer customers the best service in the industry	1	2	17	69	51	140	4.19	2 <sup>nd</sup>
We do care about what our customers and investors desire from us	1	1	16	76	47	141	4.18	3 <sup>rd</sup>
Our company listens and responds to customers’ complaints	1	1	19	70	50	141	4.18	3 <sup>rd</sup>
Our company business decisions are driven by customer satisfaction	1	3	24	56	57	141	4.17	5 <sup>th</sup>
We feel confident that our customers will continue to do business with us.	2	2	21	80	36	141	4.04	6 <sup>th</sup>
Managers in our company are clear about the market target and customer profiles	1	2	28	69	41	141	4.04	6 <sup>th</sup>
Our brand is one of the most recognised in the insurance industry	1	7	28	59	46	141	4.01	8 <sup>th</sup>
Our company prides itself on being a market-oriented leader.	1	3	30	66	41	141	4.01	8 <sup>th</sup>
Our company maintains long-standing relationships with several important suppliers and trade partners	0	10	28	57	46	141	3.99	10 <sup>th</sup>
As a market leader, my company has earned premium increases every year and this enhances profitability	1	7	28	61	44	141	3.99	11 <sup>th</sup>
Customers are generally satisfied with our insurance services	1	3	35	69	33	141	3.92	12 <sup>th</sup>
Our brand brings many new customers and investors yearly	1	4	34	70	32	141	3.91	13 <sup>th</sup>
Our insurance services and products have a higher percentage of take-up and yearly renewals than our competitors	2	3	38	65	33	141	3.88	14 <sup>th</sup>
Our insurance company maintains good relationships with all civic groups and persons within our community	6	5	28	64	38	141	3.87	15 <sup>th</sup>

VARE	NAA	TASE	TAME	TALE	TAVLE	N	Mean	Rank
Customers are generally satisfied with our insurance services	2	5	44	58	32	141	3.80	16 <sup>th</sup>
The loyalty of our customers is comparatively higher in our company than in other companies in the industry	1	7	48	57	28	141	3.74	17 <sup>th</sup>
Our customers always like new insurance products or services we introduce to the market	2	10	43	66	20	141	3.65	18 <sup>th</sup>

Note: 1= not at all (NAA), 2 = to a small extent (TASE), 3= to a moderate extent (TAME), 4= to a large extent (TALE), 5= to a very large extent (TAVLE)

Table 6.2 above shows the descriptive statistics on Value Added Relational Capital (VARE). According to Pimentel (2019, p.188), the five-point Likert scale is regarded as an interval scale, this makes the mean very important and easy to analyse for groups of respondents. 1 to 1.80 represents Not at all (NAA), 1.80 to 2.60 represents to a small extent (TASE), 2.60 to 3.40 represents to a moderate extent (TAME), 3.40 to 4.20 represents to a large extent (TALE) while 4.20 to 5.00 represents to a very large extent (TAVLE).

The ranking system in Table 6.2 has shown clearly that a larger percentage of the participants agreed to a large extent that their insurance companies are heavily customer and market focused, this is because their mean score (4.23) ranked first. On the contrary, customers do not always like new insurance products or services that are introduced to the market by the insurance firms as this ranked 18<sup>th</sup>.

Considering Table 6.2, the first item, "Our insurance company tries to offer customers the best service in the industry" has a mean score of 4.16 denoting that a majority of the respondents agreed that their insurance company tries to offer customers the best service in the industry. Furthermore, all the mean scores of the item above range between 3.65 to 4.23 depicting that a majority of the respondents agreed to a very large extent that to items of the questionnaire.



### 6.1.2.3 Descriptive Statistics of Variables “Value Added Human Capital (VAHU)”

**Table 6.3: Descriptive statistics on Value Added Human Capital (VAHU)**

VAHU	NAA	TASE	TAME	TALE	TAVLE	N	Mean	Rank
Human Capital as a key performance indicator will motivate the managers and enhance profitability	1	2	30	73	35	141	3.99	1 <sup>st</sup>
Core competencies are highly valued by management in my organisation because they enhance the company’s value	1	7	28	75	30	141	3.89	2 <sup>nd</sup>
Personal skills and talents are recognised and rewarded in my company and this encourages the managers to enhance the company’s financial growth.	4	3	33	69	32	141	3.87	3 <sup>rd</sup>
Challenging assignments performed by the managers are usually recorded with success within my organisation.	3	10	31	68	29	141	3.78	4 <sup>th</sup>
The inclusion of Human capital in the financial statements will encourage investment in the insurance industry and thereby increase profitability.	5	7	40	61	28	141	3.71	5 <sup>th</sup>
Human Capital costs should be capitalised in the financial statements of insurance companies to show their true financial position.	13	4	30	63	31	141	3.67	6 <sup>th</sup>

Note: 1= not at all (NAA), 2 = to a small extent (TASE), 3= to a moderate extent (TAME), 4= to a large extent (TALE), 5= to a very large extent (TAVLE)

In Table 6.3, the range 3.67-3.99 of the mean scores of all the items depicts that a high percentage of the respondents agreed with the questionnaire to a large extent. To further establish this, the item which ranked first is 'Human Capital as a key performance indicator will motivate the managers and enhance profitability' followed by the item which states that 'Core competencies are highly valued

by management in my organisation because they enhance the company's value'. Therefore, it can be deduced that all the value of human capital in an insurance company cannot be overemphasised.

#### 6.1.2.4 Descriptive Statistics of Variables “Value Added Structural Capital (VAST)”

**Table 6.4: Descriptive statistics on Value Added Structural Capital (VAST)**

VAST	NAA	TASE	TAME	TALE	TAVLE	N	Mean	Rank
Company trademarks and patents are highly valued and updated to our client's satisfaction.	4	34	65	38	141	3.97	1 <sup>st</sup>	
Brands are valued and recognised as essential elements in the growth of my company	6	27	70	36	141	3.94	3 <sup>rd</sup>	
Our innovations include constant review and renewal of products' life-cycle which increases our value chain.	4	26	77	32	141	3.94	2 <sup>nd</sup>	
Our management style emphasises organisational culture for corporate growth	3	39	65	31	141	3.84	4 <sup>th</sup>	
Investors care about intangible capital and intellectual capital information, R&D, software cost, patents, and brands as they have a positive relationship with share prices	5	33	73	22	141	3.68	5 <sup>th</sup>	
Management always initiates special products to our customers' satisfaction.	5	38	66	23	141	3.63	6 <sup>th</sup>	
Your company's concept of culture (e.g. concepts of values, ways of thinking and behaviour patterns shared in a specific group) contains valuable ideas and business methods	9	42	69	17	141	3.61	7 <sup>th</sup>	

Note: 1= not at all (NAA), 2 = to a small extent (TASE), 3= to a moderate extent (TAME), 4= to a large extent (TALE), 5= to a very large extent (TAVLE)

Table 6.4 shows the descriptive statistics of the value of structural capital on the insurance company. This has further been established from the research instrument because the mean range (3.61-3.95) of all the items in Table 6.4 agrees to a large extent on all the items raised in the group with the first rank being “Company trademarks and patents are highly valued and updated to our client's satisfaction” while the second-ranked statement, “Our innovations include constant review and renewal of products” life-cycle which increases our value chain”, emphasised the role of innovation.

#### 6.1.2.5 Descriptive Statistics of Variables “Value Added Business Recipe (Strategic) Capital (VABU)”

**Table 6.5: Descriptive statistics on Value Added Business Recipe (Strategic) Capital (VABU)**

VABU	NAA	TASE	TAME	TALE	TAVLE	N	Mean	Rank
Managers feel obliged to help their colleagues in work-related matters	1	2	29	68	41	141	4.04	1 <sup>st</sup>
The system allows information sharing and cooperation across different parts of the company	2	6	27	67	39	141	3.96	2 <sup>nd</sup>
Your company has intranet that facilitates sharing of information among employees and access to information that facilitates their work	0	5	34	67	35	141	3.94	3 <sup>rd</sup>
Your insurance company has a system to reflect opinions from other departments and clients when new products and services are developed and such a system has been applied	1	4	40	64	32	141	3.87	4 <sup>th</sup>
A great deal of knowledge and information is incorporated into your organisational structure, management system and business process.	2	5	37	66	31	141	3.84	5 <sup>th</sup>

VABU	NAA	TASE	TAME	TALE	TAVLE	N	Mean	Rank
Auditors influence the level of company voluntary disclosure which enhances investors' confidence	2	6	37	68	28	141	3.81	6 <sup>th</sup>
Intellectual capital and corporate governance are connected focusing on the pattern of stakeholder influence that affects management decision making	0	9	37	68	27	141	3.80	7 <sup>th</sup>
A good amount of information and knowledge is incorporated into your company's management systems, organisational structure and business process	1	9	37	67	27	141	3.78	8 <sup>th</sup>
Engaging a high-quality auditor may enhance intellectual capital recognition to reduce information asymmetry	8	4	37	64	28	141	3.71	9 <sup>th</sup>
Management applies knowledge from other sections to cope with business problems caused by a specific section	6	8	29	79	19	141	3.69	10 <sup>th</sup>
The managers apply knowledge from other sections of your insurance company to cope with business challenges caused by a specific department	8	6	40	60	27	141	3.65	11 <sup>th</sup>
Your company culture such as concepts of values, ways of thinking and behaviour patterns shared in a specific group contains valuable ideas and business methods	4	10	41	68	18	141	3.61	12 <sup>th</sup>

Note: 1= not at all (NAA), 2 = to a small extent (TASE), 3= to a moderate extent (TAME), 4= to a large extent (TALE), 5= to a very large extent (TAVLE)

The ranking system in Table 6.5 has shown clearly that a high percentage of the participants agreed to a large extent that “Managers feel obliged to help their colleagues in work-related matters” ranked

first (4.04) which is a necessary ingredient in the business recipe (strategic) capital essential for adding value to the insurance company. The second rank (3.96) is that “the system allows information sharing and cooperation across different parts of the company” clearly reveals that oneness is essential for the progress of the insurance company.

Furthermore, all the mean scores of the items above range between 3.61 to 4.04 depicting that the majority of the respondents agreed to a very large extent on the items of the questionnaire. From an empirical point of view, the summary outcome is consistent with Adam (2017, p.5) “It is helpful to include this category because it explains the purpose of the rest of the capitals and the gravitational pull that keeps all the pieces together”

#### 6.1.2.6 Descriptive Statistics of Variables “Economic Value Added (EVA)”

**Table 6.6: Descriptive Statistics on Economic Value Added (EVA)**

EVA	NAA	TASE	TAME	TALE	TAVLE	N	Mean	Rank
Financial statements with intellectual capital information are viewed as a communicating device used by companies to communicate their information to various stakeholders, especially investors	1	2	35	76	27	141	3.89	1st
Management accounting information (economic and non-economic) including intellectual capital are useful for implementing the company’s strategies	3	7	36	72	23	141	3.74	2 <sup>nd</sup>
Performance adjustments solve problems such as trying to develop the accounting of intangibles and long-term investments that lacks a high degree of certainty	1	17	43	57	23	141	3.60	4 <sup>th</sup>
Productivity of intellectual capital is related to EVA indicators	10	7	36	69	19	141	3.57	3 <sup>rd</sup>

EVA	NAA	TASE	TAME	TALE	TAVLE	N	Mean	Rank
Using EVA in measuring intellectual capital is arguable when applied to quantifying the value of intangible assets.	10	11	43	58	19	141	3.46	5 <sup>th</sup>

Note: 1= not at all (NAA), 2 = to a small extent (TASE), 3= to a moderate extent (TAME), 4= to a large extent (TALE), 5= to a very large extent (TAVLE)

The ranking system in Table 6.6 has shown clearly that a high percentage of the participants agreed to a large extent that “financial statements with intellectual capital information are viewed as a communicating device used by companies to communicate their information to various stakeholders especially investors” (3.46). This financial statement remains the necessary instrument that gives the stakeholders and shareholders an overview of the impact of Intellectual capital on insurance companies’ economic value.

Furthermore, all the mean scores of the item above range between 3.46 to 3.89 depicting that the majority of the respondents agreed to a very large extent on the items of the questionnaire. According to Bukh, N. (2002, p.50), in practice, intellectual capital statements contain various financial and non-financial information, i.e., staff turnover and job satisfaction, in-service training, turnover split on customers, customer satisfaction, the precision of supply etc. “In this new economy, intellectual capital is considered as the preeminent resource for generating economic wealth and growth” Forte et al. (2017, p.711).

#### 6.1.2.7 Descriptive Statistics of Variables “Market Value Added (MVA)”

**Table 6.7: Descriptive Statistics on Market Value Added (MVA)**

MVA	NAA	TASE	TAME	TALE	TAVLE	N	Mean	Rank
Lack of accounting standards leads to a reduction in the value relevance of information in financial statements	1	4	35	68	33	141	3.91	1 <sup>st</sup>

<b>MVA</b>	<b>NAA</b>	<b>TASE</b>	<b>TAME</b>	<b>TALE</b>	<b>TAVLE</b>	<b>N</b>	<b>Mean</b>	<b>Rank</b>
Awareness of the importance and relevance of disclosing and recognising intellectual capital information is growing as it increases a company's profitability	4	9	27	72	29	141	3.80	2 <sup>nd</sup>
Accounting practices and standards do not specify the recognition criteria of intellectual capital, its measurement and disclosure, rendering it difficult to communicate useful intellectual capital information to users and investors	3	11	38	69	20	141	3.65	3 <sup>rd</sup>
Financial markets are more accurate in their valuation of companies	6	10	37	74	14	141	3.57	4 <sup>th</sup>
Any excess valuation of a company over its book value will be the correct valuation of the company's intellectual assets	5	15	40	57	24	141	3.57	4 <sup>th</sup>

Note: 1= not at all (NAA), 2 = to a small extent (TASE), 3= to a moderate extent (TAME), 4= to a large extent (TALE), 5= to a very large extent (TAVLE)

Table 6.7 indicates Market Value Added (MVA) responses. Ranked 1<sup>st</sup> is “Lack of accounting standard leads to a reduction in value relevance of information in financial statements”. This is followed by “Awareness of the importance and relevance of disclosing and recognition of intellectual capital information is growing as it increases a company's profitability” with a 3.80 mean score as the 2<sup>nd</sup>. “Accounting practices and standards do not specify the recognition criteria of intellectual capital, its measurement and disclosure, rendering it difficult to communicate useful intellectual capital information to users and investors” is 3<sup>rd</sup> on the rank with a 3.65 mean score. “Financial markets are more accurate in their valuation of companies and any excess valuation of a company over its book value will be the correct valuation of the company's intellectual assets” took the 4<sup>th</sup> on the rank respectively. The market value of a company would be less relevant without a backing accounting standard on which to base its justification of inclusion in the financial statements.

### 6.1.2.8 Descriptive Statistics of Variables “Future Growth Value (FGV)”

**Table 6.8: Descriptive Statistics on Future Growth Value (FGV)**

FGV	NAA	TASE	TAME	TALE	TAVLE	N	Mean	Rank
The value of brands is more visible to current investors and potential investors	2	4	27	77	31	141	3.93	1 <sup>st</sup>
Intellectual capital is a significant factor that assists companies to create value and sustain future strategic competitive advantage	4	4	28	74	31	141	3.88	2 <sup>nd</sup>
Your company’s recognition plan and strategy are formed by the perception of how capital market participants understand value-relevant information	2	6	32	70	31	141	3.87	3 <sup>rd</sup>
Lack of Intellectual Capital recognition runs the risk of the undervalued companies being subject to hostile takeovers	5	13	41	54	28	141	3.62	4 <sup>th</sup>

Note: 1= not at all (NAA), 2 = to a small extent (TASE), 3= to a moderate extent (TAME), 4= to a large extent (TALE), 5= to a very large extent (TAVLE)

On Future Value Growth (FGV), Table 6.8 points out that the “Value of brands is more visible to current investors and potential investors” is ranked first with a 3.93 mean score, “Intellectual capital is a significant factor that assists companies to create value and sustain future strategic competitive advantage” followed with 3.88 mean scores. The 3<sup>rd</sup> (3.87) on the ranking is “Your company’s recognition plan and strategy are formed by the perception of how capital market participants understand value relevant information” while “Lack of intellectual capital recognition run the risk of the undervalued companies being subject to hostile takeovers” occupied the last and 4<sup>th</sup> (3.62) on the ranking.



Furthermore, all the mean scores of the items above range between 3.62 to 3.93, depicting that the majority of the respondents agreed to a very large extent with the items of the questionnaire.

### 6.1.2.9 Descriptive Statistics of Variables “Return on Equity (ROE)”

**Table 6.9: Descriptive Statistics on Return on Equity (ROE)**

ROE	NAA	TASE	TAME	TALE	TAVLE	N	Mean	Rank
Networking by the managers has greatly impacted our profitability.	6	11	30	60	34	141	3.74	1 <sup>st</sup>
Where the Returns on Investment (ROI) from managers are not adequate, investors may likely divest.	6	5	42	61	27	141	3.70	2 <sup>nd</sup>
As a measure of managers’ financial management in a company, Return on Equity adequately indicates the rewards arising from such investments	8	11	29	68	25	141	3.65	3 <sup>rd</sup>
Insufficient investment may not necessarily result in insufficient returns where strategic investment plans are employed by the management.	3	14	46	53	25	141	3.59	4 <sup>th</sup>
Equity capital must be combined with borrowed capital by the managers to maximise returns.	11	9	34	66	21	141	3.55	5 <sup>th</sup>

Note: 1= not at all (NAA), 2 = to a small extent (TASE), 3= to a moderate extent (TAME), 4= to a large extent (TALE), 5= to a very large extent (TAVLE)

Table 6.9 above shows that “Return on Equity, Networking by the managers has greatly impacted on our profitability” tops the rank 1<sup>st</sup> with a mean score of 3.74, followed by “Where the Returns on investment (ROI) from managers are not adequate, investors may likely divest” with a mean score of (3.69. The response, “as a measure of managers’ financial management in a company, Return on Equity adequately indicates the rewards arising from such investments” is next as 3<sup>rd</sup> with 3.64, “Insufficient investment may not necessarily result into insufficient returns where strategic

investment plans are employed by the management” followed with 3.58 mean score and the last on the ranking chart in 5<sup>th</sup> place is “Equity capital must be combined with borrowed capital by the managers to maximise returns” with 3.54 mean score. The relevance of return on equity (ROE) contributes to the value of intellectual capital. This is consistent with Chen et al., (2005) as quoted by Kehelwalatenna and Premaratne (2013, p.4) who stated that ROE is generally an important financial indicator for investors. However, establishing additional relationships by introducing performance indicators that more specifically assist investors would address the issue of lack of evidence on the value relevance of Intellectual Capital to investors.

#### 6.1.2.10 Descriptive Statistics of Variables “Return on Asset (ROA)”

**Table 6.10: Descriptive Statistics on Return on Asset (ROA)**

ROA	NAA	TASE	TAME	TALE	TAVLE	N	Mean	Rank
Management need not bother about returns as long as adequate tangible assets have been invested in the company.	13	18	33	64	12	140	3.31	3 <sup>rd</sup>
Prudent financial management by managers brings about high financial performance.	7	9	26	65	34	141	3.78	1 <sup>st</sup>
A company’s financial growth may not necessarily be reflected in the fixed asset growth.	4	8	41	73	15	141	3.62	2 <sup>nd</sup>

Note: 1= not at all (NAA), 2 = to a small extent (TASE), 3= to a moderate extent (TAME), 4= to a large extent (TALE), 5= to a very large extent (TAVLE)

Table 6.10 indicates that Return on Assets (ROA) has “Prudent financial management by managers brings about high financial performance” ranked first with 3.78. This is followed by “A company’s financial growth may not necessarily be reflected in the fixed asset growth” with 3.62 as the mean score. Management need not bother about returns as long as adequate tangible assets have been invested in the company ranked third with 3.31.

Furthermore, all the mean scores of the items above range between 3.31 to 3.78 depicting that the majority of the respondents agreed to a very large extent with the items of the questionnaire.

### 6.1.2.11. Descriptive Statistics of Variables “Return on Capital Employed (ROCE)”

**Table 6.11: Descriptive Statistics on Return on Capital Employed (ROCE)**

ROCE	NAA	TASE	TAME	TALE	TAVLE	N	Mean	Rank
The value of a company’s investment is increased by the skilful use of 2 resources by the management.	3	28	77	31	141	3.94	1 <sup>st</sup>	
The high return on capital employed is evidence of the financial prudence of 6 managers in my organisation.	5	18	76	36	141	3.93	2 <sup>nd</sup>	
Investors’ capital contributions to the business must be adequately employed by the management for profit maximisation. 1	7	32	67	34	141	3.89	3 <sup>rd</sup>	
Investors’ appraisals of management’s past financial performances are used as yardsticks for their future investments. 3	4	29	79	26	141	3.86	4 <sup>th</sup>	
Investment in intellectual capital in my company is significantly 6 influenced by its profitability.	6	30	70	29	141	3.78	5 <sup>th</sup>	
The proportion of a management’s input has no direct bearing on the 7 capital employed in the organisation.	16	31	60	27	141	3.60	6 <sup>th</sup>	

Note: 1= not at all (NAA), 2= to a small extent (TASE), 3= to a moderate extent (TAME), 4= to a large extent (TALE), 5= to a very large extent (TAVLE)

On Return on Capital Employed (ROCE) “the value of a company’s investment is increased by the skilful use of resources by the management” tops Table 6.11 with a ranking of 1<sup>st</sup>(3.94). Then “High

return on capital employed is evidence of the financial prudence of managers in my organisation” was next with 3.93, and “Investors’ capital contributions to the business must be adequately employed by the management for profit maximisation” occupied the 3<sup>rd</sup> rank with 3.89. The bottom of the table was occupied by “Investment in intellectual capital in my company is significantly influenced by its profitability” at 5<sup>th</sup> place with a 3.78 mean score and “the proportion of a management’s input has no direct bearing on the capital employed in the organisation” with a 3.60 mean score was the lowest placed item.

### 6.1.3 Testing of Hypotheses

The following formulated hypotheses for this research were tested using multiple linear regression under this section.

1. **Hypothesis One (H<sub>1</sub>):** Intellectual Capital recognition in financial statements has become an increasing phenomenon in the financial statements of insurance companies.
2. **Hypothesis Two (H<sub>2</sub>):** Intellectual Capital (IC) is positively connected with company profitability.
3. **Hypothesis Three (H<sub>3</sub>):** Intellectual Capital (IC) is negatively related to company age
4. **Hypothesis Four (H<sub>4</sub>):** Intellectual Capital (IC) value of a company is linked to its leverage status/
5. **Hypothesis Five (H<sub>5</sub>):** Intellectual Capital recognition is perceived as relevant from a capital market valuation perspective.
6. **Hypothesis Six (H<sub>6</sub>):** Intellectual Capital indices influence the economic value of insurance companies.

#### 6.1.3.1 Independent Sample T-Test on Hypothesis One

**Hypothesis One (H<sub>1</sub>):** Intellectual Capital Recognition in financial statements has become an increasing phenomenon in the financial statements of listed insurance companies.

**Statistical Tool Used:** Independent Sample T-Test

**Decision:** Hypothesis (H<sub>1</sub>) *Intellectual Capital Recognition in financial statements has become an increasing phenomenon in the financial statements of listed insurance companies* and is accepted.

This is due to the sig. value of intellectual capital elements (0.000) being less than 0.05.

**Inference:** Elements of Intellectual Capital such as information technology, education cost, administrative cost, processes and investment in infrastructure are becoming an increasing phenomenon in the financial statements of insurance companies in Nigeria.

**Table 6.12: Independent Sample T-Test on the Phenomenon of IC Recognition in Financial Statements of Insurance Companies.**

The phenomenon of ICR in FS of Insurance Companies				N	Mean	SD	df	T.Crit	Sig	Decision
	Salary And Wages			16	2.00	0.00	30	2.042	0.00	Significant
	Education Cost			16	1.63	0.50	30	2.042	0.00	Significant
Human Resource	Education Cost	Per	Employee	16			30	2.042	0.00	
	Turnover			16	1.63	0.50				Significant
Customers	Marketing Expenses			16	2.00	0.00	30	2.042	0.00	Significant
Technology	Total IT Expenses			16	1.88	0.34	30	2.042	0.00	Significant
	Administrative Expenses			16	1.69	0.48	30	2.042	0.00	Significant
	Cost Per Process			16	1.81	0.40	30	2.042	0.00	Significant
Processes	Investment In Infrastructure			16	1.25	0.45	30	2.042	0.00	Significant

Note: ICR – intellectual capital reporting, FS – financial statement

The Independent Sample T Test results on the phenomena of Intellectual Capital Reporting in insurance company financial statements are summarised in Table 6.12 above. The table demonstrated that components with mean values higher than 1.50 ( $x > 1.50$ ) indicated the element of the report's average positive presence in the financial statement. This suggests that every component of the human resource element—including turnover and marketing costs—customers, education costs, and technology—were presented in the financial statements and was relevant at the 0.00 level of importance. However, only administrative costs associated with processes were reported, whereas its

other components, such as cost per process and investment in infrastructure, had mean values smaller than 1.50 ( $x < 1.50$ ) and were significant at 0.05 level of significance.

### 6.1.3.2 Multiple Linear Regression Results of Hypothesis Two

*(H<sub>2</sub>): Intellectual Capital (IC) is positively connected with company profitability.*

**Hypothesis two (H<sub>2</sub>):** Intellectual capital (IC) is positively connected with company profitability.

**Statistical Tool Used:** Multiple Linear Regression

**Decision:** Hypothesis (H<sub>2</sub>) *Intellectual Capital (IC) is positively connected with company profitability* is accepted. This is due to the sig. value of Intellectual Capital (0.000) being less than 0.05.

**Inference:** Every 51% change in company profitability is caused by a unit change in intellectual capital which consists of all the capitals - Relational, Human, Structural and Business Recipe (Strategic capital).

**Table 6.13 Multiple Linear Regression Results of Hypothesis Two**

<b>Descriptive Statistics</b>			
	Mean	Std. Deviation	N
Company Profitability	51.9007	7.96717	141
Value-Added Relational Capital	71.7801	8.91315	141
Value-Added Human Capital	22.9078	3.79455	141
Value-Added Structural Capital	26.6099	4.23383	141
Value Added Business Recipe Capital	45.6879	6.31906	141

Table 6.13 above presents the usual descriptive statistics for all five variables one dependent and four independent. Note that N, which represents the total number of participants (respondents) is 141 because there are no missing scores on any variables. Multiple regression uses only the participants who have complete data for all the variables.

The inference confirms that a 51% change increase or decrease in the insurance company's profit is caused by one unit change in intellectual capital. This shows the importance of the impact of

intellectual capital. Value Added Relational Capital and Value Added Business Recipe or Strategic capital has 71.8% and 45.7% part of Intellectual Capital respectively. This supports the outcome of Hypothesis Two.

**Table 6.14 Correlation matrix - Questionnaires**

<b>Correlations</b>		Company Profitability	Value-Added Relational Capital	Value-Added Human Capital	Value-Added Structural Capital	Value Added Business Recipe Capital
Pearson Correlation	Company Profitability	1.000	.503	.512	.660	.665
	Value-Added Relational Capital	.503	1.000	.652	.656	.658
	Value-Added Human Capital	.512	.652	1.000	.650	.649
	Value-Added Structural Capital	.660	.656	.650	1.000	.683
	Value Added Business Recipe Capital	.665	.658	.649	.683	1.000
Sig. (1-tailed)	Company Profitability	.	.000	.000	.000	.000
	Value-Added Relational Capital	.000	.	.000	.000	.000
	Value-Added Human Capital	.000	.000	.	.000	.000
	Value-Added Structural Capital	.000	.000	.000	.	.000
	Value Added Business Recipe Capital	.000	.000	.000	.000	.

N	Company Profitability	141	141	141	141	141
	Value-Added Relational Capital	141	141	141	141	141
	Value-Added Human Capital	141	141	141	141	141
	Value-Added Structural Capital	141	141	141	141	141
	Value Added Business Recipe Capital	141	141	141	141	141

Table 6.14 above represents a correlation matrix. The first column shows the correlations of the independent variables (intellectual capital) with the dependent variable (company profitability) and it shows that Relational Capital, Human Capital, Structural Capital and Business Recipe Capital are all significantly correlated with Company Profitability because the significant level is 0.000 ( $0.000 < 0.05$ ) at 5% confidence level. It can as well be noted that some of the independent variables are also strongly related to each other as in the case of Relational Capital and Human Capital (0.652), Structural Capital and Relational Capital (0.656), Business Recipe and Relational Capital (0.658).

**Table 6.15 Correlation Coefficient Results**

**Model Summary <sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.722 <sup>a</sup>	.522	.508	5.58973	2.141

a. Predictors: (Constant), Value Added Business Recipe Capital, Value Added Human Capital, Value Added Relational Capital, Value Added Structural Capital

b. Dependent Variable: Company Profitability

The Model Summary, Table 6.15, indicates the result of the correlation coefficient (R) which is 0.722, using all the independent variables at once,  $R^2 = 0.522$  and the adjusted  $R^2$  is 0.508. This implies that 51% of the change in company profitability is explained by Relational Capital, Human Capital, Structural Capital and Business Recipe Capital altogether i.e. 51% change in company profitability



is caused by a unit change in Intellectual Capital which consists of Relational, Human, Structural and Business Recipe capital.

The adjusted  $R^2$  is lower than the unadjusted  $R^2$ . This is, in part, related to the number of variables in the equation. The adjustment is also affected by the magnitude of the effect and the sample size.

**Table 6.16: Schedule of ANOVA results**

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4637.274	4	1159.319	37.104	.000 <sup>b</sup>
	Residual	4249.336	136	31.245		
	Total	8886.610	140			

a. Dependent Variable: Company Profitability

b. Predictors: (Constant), Value Added Business Recipe Capital, Value Added Human Capital, Value Added Relational Capital, Value Added Structural Capital

The ANOVA Table 6.16 shows that with the degree (df = 4 and 136, Sum of squares = 4637.274 and 4249.336 and Mean square = 1159.319 and 31.245) the  $F = 37.104$  and is significant. This means that the combination of the independent variables significantly predicts company profitability.

**Table 6.17 Standardised beta coefficients**

**Coefficients<sup>a</sup>**

Model		Unstandardised Coefficients		Standardised Coefficients		Collinearity Statistics		
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	10.094	4.022		2.510	.013		
	Value-Added Relational Capital	-.028	.079	-.032	-.355	.723	.445	2.246
	Value-Added Human Capital	.021	.185	.010	.113	.910	.455	2.198
	Value-Added Structural Capital	.741	.171	.394	4.337	.000	.427	2.345

Value Added	.517	.115	.410	4.51	.000	.426	2.349
Business Recipe				5			
Capital							

a. Dependent Variable: Company Profitability

The Coefficients Table 6.17 indicates the standardised beta coefficients, which are interpreted similarly to correlation coefficients or factor weights. The t value and the Sig. value of each independent variable indicates whether or not that variable significantly contributes to the equation in predicting company profitability from the whole set of predictors (independent variables). Therefore, Structural Capital and Business Recipe (Strategic) Capital are the only variables that significantly add something to the prediction (dependent variable) when the variables are considered. All the independent variables are considered together when computing the values. Therefore, if one of the insignificant independent variables is deleted, it can affect the significant levels of the other independent variables. This means that all four Intellectual Capital categories have a bearing together to influence the company value adding.

**Table 6.18 Collinearity Diagnostics Variance Proportions**

**Collinearity Diagnostics <sup>a</sup>**

Model	Dimension	Eigenvalue	Condition Index	Constant	Variance Proportions				
					Relational Capital	Human Capital	Structural Capital	Business Recipe	Value Added Capital
1	1	4.965	1.000	.00	.00	.00	.00	.00	
	2	.014	18.614	.60	.00	.20	.09	.00	
	3	.009	23.505	.03	.00	.67	.52	.03	
	4	.006	27.957	.13	.00	.06	.35	.87	
	5	.005	30.532	.24	.99	.07	.04	.10	

a. Dependent Variable: Company Profitability

However, as the tolerances in the Coefficients Table 6.18 suggest, although Relational Capital and Human Capital were significantly correlated with company profitability, they did not contribute to the multiple regression predicting company profitability. This may be a result of the fact that the two

variables were highly correlated with each other, therefore multiple regression eliminates all overlap between independent variables. Thus, both Relational Capital and Human Capital had less contribution when the other was also used as predictors. Also, tolerance for each of these independent variables is  $< 0.48$  ( $1-0.52$ ), indicating that too much multicollinearity (overlap between predictors) exists. There may be a need to combine the variables that are highly related to solving the multicollinearity problem if it is conceptually acceptable.

To give clarity and understanding to the terminologies, Eigen values represent the total amount of variance that can be explained by a given principal component such as Intellectual Capital. When Eigenvalues are greater than 0, it is considered good. When it is close to zero, it means there is multicollinearity. Therefore, the sum of the Eigenvalue is equal to the number of independent variables (VARE, VAHU, VAST, VABU) representing Intellectual Capital as a main component.

Also, note that besides the Eigenvalue column is the condition index column. The condition index (CI) is a function of the Eigenvalue. Condition index less than 15 means there is weak multicollinearity, condition index greater than 15 but less than 30 shows moderate multicollinearity. Condition index greater than 30 shows strong multicollinearity. It is also important to mention that multicollinearity occurs when several variables are significantly correlated not only with the dependent variables but also with each other.

### **6.1.3.3 Multiple linear regression results of Hypothesis Three**

*H3: Intellectual Capital (IC) is negatively related to company age*

**Research Hypothesis Three (H<sub>3</sub>):** Intellectual Capital (IC) is negatively related to company age.

**Statistical Tool Used:** Bivariate Correlation

**Decision:** The hypothesis (H<sub>3</sub>), *Intellectual Capital (IC) is negatively related to company age* is rejected. This is because the sig. value of the company's Intellectual Capital is above 0.05 significant level.

**Inference:** Although the Intellectual Capital and the company's age are negatively related the relationship is insignificant.

**NOTE:** The correlation coefficient ranges between 0 and 1. The closer it is to 1 the stronger the relationship. The direction of the relationship is determined by the sign of the coefficient. A negative sign connotes a negative relationship whereas a positive sign connotes a positive relationship.

**Table 6.19 Matrix of the Correlation Coefficients for Five Variables. - Questionnaires**

**Correlations**

		Company_ VARE	Company_ VAHU	Company_ VAST	Company_ VABU	Company_Age_ as_at_2020
Company_ VARE	Pearson Correlation	1	.887**	.911**	.927**	-.121
	Sig. (2-tailed)		.000	.000	.000	.433
	N	44	44	44	44	44
Company_ VAHU	Pearson Correlation	.887**	1	.917**	.916**	-.107
	Sig. (2-tailed)	.000		.000	.000	.488
	N	44	44	44	44	44
Company_ VAST	Pearson Correlation	.911**	.917**	1	.928**	-.041
	Sig. (2-tailed)	.000	.000		.000	.793
	N	44	44	44	44	44
Company_ VABU	Pearson Correlation	.927**	.916**	.928**	1	-.164
	Sig. (2-tailed)	.000	.000	.000		.287
	N	44	44	44	44	44
Company_Age_ as_at_2020	Pearson Correlation	-.121	-.107	-.041	-.164	1
	Sig. (2-tailed)	.433	.488	.793	.287	
	N	44	44	44	44	44

Table 6.19 above shows a matrix of the correlation coefficients for five variables. The table gives an analysis of the correlation coefficient, the significance value of the correlation and the sample size (N). Each variable is perfectly correlated with itself,  $r = 1$  along the diagonal of the table. Company's

Relational Capital is negatively related to the company's age with a Pearson correlation coefficient of  $r = -0.121$ , this indicates a very weak relationship with a significance value (0.433) greater than 0.05. i.e., the relationship between the company's Value Added Relational Capital and Company's Age is not statistically significant. The output also shows that the company's Value Added Human Capital is negatively related to Company's Age with a coefficient of  $r = -0.107$ , which is also not significant (0.488). Likewise, Value Added Structural and Business recipe (Strategic) Capital are also negatively related to the Company's Age with a Pearson correlation coefficient of  $r = -0.041$  and  $-0.164$  which are also not significant with 0.793 and 0.287 p- values respectively. Within the sphere of Intellectual Capital studies, Goebel (2015) “finds a negative but insignificant relationship between Intellectual Capital value and firm age”. This is consistent with Hypothesis Three (3) similarly, Forte et al. (2017, p.715).

The inclusion of a variable for insurance company age or length of establishment recognises the fact that companies develop intellectual capital value over time in a cumulative manner as the company grows in age. According to Forte et al., (2017, p.715), “On balance, and drawing largely upon theory arguments rather than existing evidence, a negative relationship is expected between Intellectual Capital and firm Age”.

#### **6.1.3.4. Multiple Linear Regression Results of Hypothesis Four - Content Analysis**

*H4: Intellectual Capital (IC) value of a company is linked to its Leverage Status*

**Research Hypothesis four (H<sub>4</sub>):** Intellectual Capital (IC) value of a company is linked to its leverage status.

**Statistical Tool Used:** Correlation

**Decision:** Hypothesis (H<sub>4</sub>), *Intellectual Capital (IC) value of a company is linked to its leverage status* is rejected. This is because the significant value of the company's Intellectual Capital is above 0.05 significant level.

**Inference:** Although Intellectual Capital and Leverage Status are positively related, the relationship is insignificant.

**NOTE:** The correlation coefficient ranges between 0 and 1. The closer it is to 1 the stronger the relationship. The direction of the relationship is determined by the sign of the coefficient. A negative sign connotes a negative relationship while a positive sign connotes a positive relationship.

**Table 6.20 Multiple Linear Regression Results of Hypothesis Four – Content analysis**

<b>Descriptive Statistics</b>			
	Mean	Std. Deviation	N
Company_Leverage	.52250	.249573	16
Company_VARE	231.8750	39.67682	16
Company_VAHU	72.8125	14.31185	16
Company_VAST	86.1875	16.50139	16
Company_VABU	147.6875	30.92727	16

N= Number of companies from content analysis

**Table 6.21 Matrix of the Correlation Coefficients for Five Variables -Content Analysis.**

<b>Correlations</b>		Company				
		_Leverage	Company_VARE	Company_VAHU	Company_VAST	Company_VABU
Pearson Correlation	Company_Leverage	1.000	.092	.080	.186	.148
	Company_VARE	.092	1.000	.908	.954	.963
	Company_VAHU	.080	.908	1.000	.935	.938
	Company_VAST	.186	.954	.935	1.000	.953
	Company_VABU	.148	.963	.938	.953	1.000
Sig. (1-tailed)	Company_Leverage	.	.368	.384	.245	.292
	Company_VARE	.368	.	.000	.000	.000
	Company_VAHU	.384	.000	.	.000	.000
	Company_VAST	.245	.000	.000	.	.000
	Company_VABU	.292	.000	.000	.000	.
N	Company_Leverage	16	16	16	16	16
	Company_VARE	16	16	16	16	16

Company_VAHU	16	16	16	16	16
Company_VAST	16	16	16	16	16
Company_VABU	16	16	16	16	16

Table 6.21 above shows a matrix of the correlation coefficients for five variables. The table gives an analysis of the correlation coefficient, the significance value of the correlation and the sample size (N). Each variable is perfectly correlated with itself,  $r = 1$  along the diagonal of the table. The company's Value Added Relational Capital is positively linked to the company's leverage status with a Pearson correlation coefficient of  $r = 0.092$ , this coefficient indicates a very weak relationship and the significance value (0.368) is greater than 0.05. i.e., the relationship between the company's Value Added Relational Capital and Leverage status is not statistically significant (insignificant). The output also shows that the company's Value Added Human Capital is positively related to the company's Leverage with a coefficient of  $r = 0.080$ , but not significant (0.384). Likewise, Value Added Structural and Business Recipe Capital are also positively related to the company's leverage status with a Pearson correlation coefficient of  $r = 0.186$  and  $0.148$  which are also not significant at p-values of 0.245 and 0.292 respectively.

To give clarity to the understanding of the statistical terms (Sig 1-tailed) and (2-tailed) with respect to the output, the output that displays the 1-tailed or 2-tailed significance values have to do with the directionality of the hypothesis. A one-tailed test (sig. 1-tailed) is selected when there is a directional hypothesis. A two-tailed test (sig.2-tailed) should be used when one cannot predict the nature of the relationship. Therefore, if one has a directional hypothesis, it is called one-tailed whereas if you have a non-directional hypothesis, it is called two-tailed.

#### 6.1.3.5. Multiple Linear Regression Results of Hypothesis Five - Questionnaires

*H5: Intellectual Capital recognition is perceived as relevant from a capital market valuation perspective*

**Research Hypothesis five (H<sub>5</sub>):** Intellectual Capital recognition is perceived as relevant from a capital market valuation perspective

**Statistical Tool Used:** Multiple Linear Regression

**Decision:** The alternate hypothesis (H<sub>5</sub>) *Intellectual Capital recognition is perceived as relevant from a capital market valuation perspective* is accepted. This is because the sig. value (0.000) is less than 0.05.

**Inference:** Every 39.3% change in capital market valuation perspectives is caused by a unit change in Intellectual Capital which consists of Value Added Relational, Value Added Human, Value Added Structural and Value Added Business Recipe ( Strategic) Capitals.

**Table 6.22 Multiple Linear Regression Results of Hypothesis Five -Questionnaires**

**Descriptive Statistics**

Variables	Mean	Std. Deviation	N
Capital Market Valuation Perspectives	33.7872	5.00401	141
Value-Added Relational Capital	71.7801	8.91315	141
Value-Added Human Capital	22.9078	3.79455	141
Value-Added Structural Capital	26.6099	4.23383	141
Value Added Business Recipe Capital	45.6879	6.31906	141

Firstly, the descriptive statistics output provides the usual descriptive statistics for all five variables one dependent and four independent. Note that N, which represents the total number of participants (respondents) is 141 because there are no missing scores on any variables. Multiple regression uses only the participants who have complete data for all the variables.

**Table 6.23 Matrix of the Correlation Coefficients for Five Variables -Questionnaires**

**Correlations**



			Capital Market Valuation Perspective s	Value- Added Relational Capital	Value- Added Human Capital	Value- Added Structural Capital	Value Added Business Recipe Capital
Pearson Correlation	Capital Valuation Perspectives	Market	1.000	.512	.562	.536	.579
	Value-Added Relational Capital		.512	1.000	.652	.656	.658
	Value-Added Human Capital		.562	.652	1.000	.650	.649
	Value-Added Structural Capital		.536	.656	.650	1.000	.683
	Value Added Business Recipe Capital	Added Recipe Capital	.579	.658	.649	.683	1.000
Sig. (1-tailed)	Capital Valuation Perspectives	Market	.	.000	.000	.000	.000
	Value-Added Relational Capital		.000	.	.000	.000	.000
	Value-Added Human Capital		.000	.000	.	.000	.000
	Value-Added Structural Capital		.000	.000	.000	.	.000
	Value Added Business Recipe Capital	Added Recipe Capital	.000	.000	.000	.000	.
N	Capital Valuation Perspectives	Market	141	141	141	141	141
	Value-Added Relational Capital		141	141	141	141	141
	Value-Added Human Capital		141	141	141	141	141
	Value-Added Structural Capital		141	141	141	141	141
	Value Added Business Recipe Capital	Added Recipe Capital	141	141	141	141	141

Table 6.23 above represents a correlation matrix. The first column shows the correlations of the independent variables (Intellectual Capital) with the dependent variable (capital market valuation) and it shows that Value Added Relational Capital, Value Added Human Capital, Value Added Structural Capital and Value Added Business Recipe Capital are all significantly correlated with capital market valuation because the significant level is  $0.000 < 0.05$ . It can as well be noted that some of the independent variables are also strongly related to each other as in the case of Value Added Relational Capital and Value Added Human Capital (0.652), Value Added Structural Capital and Value Added Relational Capital (0.656), Value Added Business Recipe and Value Added Relational Capital (0.658).

**Table 6.24 Result of Correlation Coefficient Capital Market Valuation Perspectives - Questionnaires**

**Model Summary <sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.641 <sup>a</sup>	.410	.393	3.89829	2.141

a. Predictors: (Constant), Value Added Business Recipe Capital, Value Added Human Capital, Value Added Relational Capital, Value Added Structural Capital

b. Dependent Variable: Capital Market Valuation Perspectives

The Model Summary Table 6.24 indicates the result of the correlation coefficient (R) is 0.641, using all the independent variables at once, ( $R^2 = 0.410$ ) and the adjusted  $R^2$  is 0.393. This implies that 39.3% of the change in capital market valuation perspectives is explained by Value Added Relational Capital, Value Added Human Capital, Value Added Structural Capital and Value Added Business Recipe (Strategic) Capital altogether. That is, a 39.3% change in capital market valuation is caused by a unit change in Intellectual capital consisting of Value Added Relational Capital, Value Added Human Capital, Value Added Structural and Value Added Business Recipe (Strategic) Capital.

Note that the adjusted  $R^2$  is lower than the unadjusted  $R^2$ . This is, in part, related to the number of variables in the equation. The adjustment is also affected by the magnitude of the effect and the sample size. The relevance of Durbin Watson is the t-test for independent error in the difference between the residual of the present model and the residual of predicting model. There is a range of values to examine the test, which is between 0 and 4. If it is 2.0, it shows that there is no independent error detected in the sample. If it is between 0 and 2, it shows a positive independent error. If it is between 2 and 4, then it shows a negative independent error. For this research's results, the Durbin-Watson value is 2.141, which is approximately 2, therefore it is stated that there is no independent error in the sample. Another interpretation is that it indicates if there is autocorrelation detected in the sample.

**Table 6.25 ANOVA ANALYSIS**

**ANOVA <sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1438.867	4	359.717	23.671	.000 <sup>b</sup>
	Residual	2066.750	136	15.197		
	Total	3505.617	140			

a. Dependent Variable: Capital Market Valuation Perspectives

b. Predictors: (Constant), Value Added Business Recipe Capital, Value Added Human Capital, Value Added Relational Capital, Value Added Structural Capital

The ANOVA Table 6.25 shows that with the degree (df = 4 and 136, Sum of squares = 1428.867 and 2066.750 and Mean square = 359.717 and 15.197) the  $F = 23.671$  and is significant (sig-value is less than 0.05). This means that the combination of the independent variables significantly predicts capital market valuation.

**Table 6.26 Standardised Beta Coefficients**

**Coefficients**

Model		Unstandardised		Standardised			Collinearity	
		Coefficients		Coefficients			Statistics	
		B	Std. Error	Beta	t	Sig.	Toleranc	VIF
1	(Constant)	8.881	2.805		3.166	.002		
	Value-Added	.049	.055	.087	.880	.381	.445	2.246
	Relational Capital							
	Value-Added	.316	.129	.240	2.458	.015	.455	2.198
	Human Capital							
	Value-Added	.163	.119	.138	1.365	.174	.427	2.345
	Structural Capital							
	Value Added	.215	.080	.272	2.693	.008	.426	2.349
	Business Recipe							
	Capital							

a. Dependent Variable: Capital Market Valuation Perspectives

The Coefficients Table 6.26 indicates the standardised beta coefficients, which are interpreted similarly to correlation coefficients or factor weights. The t value and the Sig value of each independent variable indicate whether that variable significantly contributes to the equation in predicting capital market valuation perspectives from the whole set of predictors (independent variables) or not. Therefore, Value Added Human Capital (0.015) and Value Added Business Recipe (Strategic) Capital (0.008) are the only variables that significantly add something to the prediction (dependent variable) when the variables are considered. This is because of their sig. values are less than 0.05 significant level. All the independent variables are considered together when computing the values. Therefore, if one of the insignificant independent variables (Value Added Relational capital and Value Added Structural capital) is deleted, it can affect the significant levels of other independent variables.

VIF (Variance Inflation Factor) evaluates the strength of correlation among the independent variables in regression analysis, which can also be termed multicollinearity. A VIF that is below 3 will not cause a problem to the regression model. A VIF of 3 or below is not an issue but the more the VIF, the less reliable our regression results are. For this research, all VIFs are not up to 3, so we can say there is no cause for concern. VIF equal to 1 means the variables are not correlated. VIF between 1

and 5, means variables are moderately correlated. VIF greater than 5 means the variables are highly correlated.

However, as the tolerances in the Coefficients table suggest, the Relational Capital and Structural Capital were significantly correlated with capital market valuation perspectives, although they did not contribute to the multiple regression predicting capital market valuation perspectives. This may be a result of the fact that the two variables were highly correlated with each other, therefore multiple regression eliminates all overlap between independent variables. Thus, both Value Added Relational Capital and Value Added Structural capital had less contribution when the others were also used as predictors. Also, tolerance for each of these independent variables is  $< 0.59$  (1-0.41), indicating that too much multicollinearity (overlap between predictors) exists. There may be a need to combine the variables that are highly related to solving the multicollinearity problem if it is conceptually acceptable.

**Table 6.27 Collinearity Diagnostics**

**Collinearity Diagnostics<sup>a</sup>**

Mode	Dimension	Eigenvalue	Condition Index	(Constant)	Variance Proportions			
					Value-Added Relational Capital	Value-Added Human Capital	Value-Added Structural Capital	Value-Added Business Recipe Capital
1	1	4.965	1.000	.00	.00	.00	.00	.00
	2	.014	18.614	.60	.00	.20	.09	.00
	3	.009	23.505	.03	.00	.67	.52	.03
	4	.006	27.957	.13	.00	.06	.35	.87
	5	.005	30.532	.24	.99	.07	.04	.10

a. Dependent Variable: Capital Market Valuation Perspectives

**6.1.3.6 Multiple Linear Regression Results of Hypothesis Six -Questionnaires**

*H6: Intellectual Capital indices influence the Economic Value of listed insurance companies*

**Research Hypothesis Six (H<sub>6</sub>):** Intellectual Capital indices influence the Economic Value of listed insurance companies

**Statistical Tool Used:** Multiple Linear Regression

**Decision:** Hypothesis (H<sub>6</sub>), *Intellectual Capital indices influence the Economic Value of listed insurance companies* is accepted. This is because the sig. value (0.000) is less than 0.05.

**Inference:** Every 48.2% change in capital market valuation is caused by a unit change in Intellectual Capital which consists of VAST, VAHU, VAST and VABU capitals.

**Table 6.28 Descriptive Statistics for all Five Variables for Hypothesis Six - Questionnaires**

**Descriptive Statistics**

	Mean	Std. Deviation	N
Economic Value Added	18.2624	3.25279	141
Value-Added Relational Capital	71.7801	8.91315	141
Value-Added Human Capital	22.9078	3.79455	141
Value-Added Structural Capital	26.6099	4.23383	141
Value Added Business Recipe Capital	45.6879	6.31906	141

First, the output provides the usual descriptive statistics for all five variables one dependent and four independent. Note that N, which represents the total number of participants (respondents) is 141 because there are no missing scores on any variables. Multiple regression uses only the participants who have complete data for all the variables. The results indicate that for every 1% change in Intellectual Capital components, there is a 48.2% influence or change in the value of capital market valuation of listed insurance companies' share value.

**Table 6.29 Matrix of the Correlation Coefficients for Five Variables -Questionnaires**

**Correlations**

			Economic Value Added	Value-Added Relational Capital	Value-Added Human Capital	Value-Added Structural Capital	Value Added Business Recipe Capital
Pearson Correlation	Economic Value Added	Value	1.000	.494	.591	.621	.640
	Value-Added Relational Capital		.494	1.000	.652	.656	.658
	Value-Added Human Capital		.591	.652	1.000	.650	.649
	Value-Added Structural Capital		.621	.656	.650	1.000	.683
	Value Added Business Recipe Capital		.640	.658	.649	.683	1.000
Sig. (1-tailed)	Economic Value Added	Value	.	.000	.000	.000	.000
	Value-Added Relational Capital		.000	.	.000	.000	.000
	Value-Added Human Capital		.000	.000	.	.000	.000

N	Value-Added Structural Capital	.000	.000	.000	.	.000
	Value Added Business Recipe Capital	.000	.000	.000	.000	.
	Economic Value Added	141	141	141	141	141
	Value-Added Relational Capital	141	141	141	141	141
	Value-Added Human Capital	141	141	141	141	141
	Value-Added Structural Capital	141	141	141	141	141
	Value Added Business Recipe Capital	141	141	141	141	141

Table 6.29 above represents a correlation matrix. The first column shows the correlations of the independent variables (intellectual capital) with the dependent variable (economic value) and it shows that VARE Capital, VAHU Capital, VAST Capital and VABU (Strategic) Capital are all significantly correlated with Company Profitability because the significant level is ( $0.000 < 0.05$ ). It can as well be noted that some of the independent variables are also strongly related to each other as in the case of VARE Capital and VAHU Capital (0.652), VAST Capital and VARE Capital (0.656), VABU (Strategic) and VARE Capital (0.658).

**Table 6.30 Result of Correlation Coefficient-Economic Value**

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.705 <sup>a</sup>	.497	.482	2.34143	1.619

a. Predictors: (Constant), Value Added Business Recipe Capital, Value Added Human Capital, Value Added Relational Capital, Value Added Structural Capital

b. Dependent Variable: Economic Value Added



The Model Summary Table 6.30 indicates the result of the correlation coefficient (R) is 0.705, using all the independent variables at once, ( $R^2 = 0.497$ ) and the adjusted  $R^2$  is 0.482. This implies that 48% of the change in economic value is explained by Value Added Relational Capital, Value Added Human Capital, Value Added Structural Capital and Value Added Business Recipe (Strategic) Capital altogether. That is, a 48% change in Economic Value is caused by a unit change in Intellectual Capital consisting of VARE Capital, VAHU Capital, VAST Capital and VABU (Strategic) capital.

Note that the adjusted  $R^2$  is lower than the unadjusted  $R^2$ . This is, in part, related to the number of variables in the equation. The adjustment is also affected by the magnitude of the effect and the sample size.

**Table 6.31 ANOVA Summary for Economic Value Added**

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	735.700	4	183.925	33.549	.000 <sup>b</sup>
	Residual	745.591	136	5.482		
	Total	1481.291	140			

a. Dependent Variable: Economic Value Added

b. Predictors: (Constant), Value Added Business Recipe Capital, Value Added Human Capital, Value Added Relational Capital, Value Added Structural Capital

The ANOVA Table 6.31 shows that with the degree (df = 4 and 136, Sum of squares = 735.700 and 745.591 and Mean square = 183.925 and 5.482) the F = 33.549 and is significant. This means that the combination of the independent variables significantly predicts Economic Value.

**Table 6.32 Standardised Beta Coefficients for Economic Value Added**

**Coefficients<sup>a</sup>**

Model		Unstandardised Coefficients		Standardised Coefficients		Collinearity Statistics		
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	1.679	1.685		.997	.321		
	Value-Added	-.024	.033	-.065	-.713	.477	.445	2.246
	Relational Capital							
	Value-Added	.195	.077	.228	2.528	.013	.455	2.198
	Human Capital							
	Value-Added	.216	.072	.282	3.023	.003	.427	2.345
	Structural Capital							
	Value Added	.176	.048	.342	3.671	.000	.426	2.349
	Business Recipe							
	Capital							

a. Dependent Variable: Economic Value Added

The Coefficients Table 6.32 indicates the standardised beta coefficients, which are interpreted similarly to correlation coefficients. The t value and the Sig value of each independent variable indicate whether that variable significantly contributes to the equation in predicting economic value from the whole set of predictors (independent variables) or not. Therefore, VAST Capital (0.003) and VABU (Strategic) Capital (0.000) are the only variables that significantly add something to the prediction (dependent variable) when the variables are considered. This is because of their sig. values are above 0.05 significant level. It is an addition because the beta value is positive. All the independent variables are considered together when computing the values. Therefore, if one of the insignificant independent variables (relational capital and human capital) is deleted, it can affect the significant levels of other independent variables.

VIF (Variance Inflation Factor) evaluates the strength of correlation among the independent variables in regression analysis, which can also be termed multicollinearity. A VIF that is below 3 will not cause a problem to the regression model.

However, as the tolerances in the Coefficients table suggest, the VARE Capital and VAHU Capital were significantly correlated with capital market valuation perspectives, although they did not contribute to the multiple regression predicting economic value. This may be a result of the fact that

the two variables were highly correlated with each other, therefore multiple regression eliminates all overlap between independent variables. Thus, both VARE Capital and VAHU Capital had less contribution when the others were also used as predictors. Also, tolerance for each of these independent variables is  $< 0.51$  ( $1-0.49$ ), indicating that too much multicollinearity (overlap between predictors) exists. There may be a need to combine the variables that are highly related to solve the multicollinearity problem if it is conceptually acceptable.

## **6.2 Qualitative Data Analysis**

### **6.2.1 Analysis of Interview Data**

Interviews were used to obtain qualitative data for this research and the findings of those interviews were analysed by separating the responses into overarching themes and more specific subthemes. The use of qualitative methods guarantees that the responses of the respondents are given in context, in relation to the respondents' own experiences with the topic being researched. According to Cohen, Manion, and Morrison (2018, p.471), various approaches can be taken when analysing qualitative data. For example, analytical induction allows the researcher to analyse data to establish categories of the phenomenon being investigated. Likewise, Saunders et al. (2012, p128-171) enumerated the many kinds of qualitative data analysis. NVivo analytical software was utilised in this research to generate themes and subthemes and to provide an answer to the research question. NVivo uses various codes, including sentiment analysis utilising automatic coding to generate positive, negative or neutral nodes. Themes, subjects, and relationships are examples of theme nodes, and they record the connection between two different project objects.

The researcher used the theme nodes to reflect the topic (objectives) discovered within the data gathered. In addition, both deductive and inductive coding are supported in NVivo. The first is a pre-set coding scheme that is based on attributes of Intellectual Capital that are obtained from literature, and the second is codes that are developed in the process of reviewing the data that was collected.

The researcher chose the nodes in the navigation view, then selected and dropped the unit of text that needed to be coded into the list view in the source item. This was an example of how the inductive coding approach can be applied. The last step is to provide descriptions for the nodes that were chosen in the dialogue box for adding a new node. In addition, to get the data prepared for analysis using NVivo, the researcher started by generating the interview transcription and a coding table based on the categories and impressions gleaned from the transcriptions. The researcher imported all of the interview transcripts into NVivo after organising them into distinct categories using NVivo. The data from the interview was used to generate new nodes, and the criteria that were used ranged from identity to other information. Finally, the researcher explained the topic by developing explanations in the form of models, tables, graphs, and info graphs based on the findings.

### **6.2.2 Word Cloud of the Interview Sessions**

This is an image composed of words used in a particular text or subject, in which the size of each word indicates its frequency or importance in a phenomenon. It is a visual representation of information or data. It shows the popularity of words or phrases by making the most frequently used words appear larger or bolder compared with the other words around them. Word Cloud was used to reemphasise and support the outcome of the NVivo results.



attribute was mentioned. Most of the respondents (10) attested that “employee training and education” is the most common Intellectual Capital element, mentioned 18 times as the component that is captured on the annual report of the insurance companies in Nigeria. This is followed by “information system” mentioned 11 times by 9 insurance companies, “research and development” mentioned 8 times by 5 respondents and “innovation and technology”. On the other hand, the least captured Intellectual capital components on the financial statements and annual reports are “employees’ experience, qualification, competence and channel of communication”. Below are the responses from individual insurance company respondents.

**Table 6.33 Identified Intellectual Capital Themes (interview)**

S/N	Identified Intellectual Capital Component (Interview)	Sources	References
1	Employee training and education	10	18
2	Information system	9	11
3	Research and development	5	8
4	Innovation and technology	4	5
5	Organisational growth	2	4
6	Employee training and development capitalisation	2	4
7	Intellectual property	2	3
8	Customer loyalty	2	3
9	Teamwork	1	2
10	Means of communication	2	2
11	Employee expertise	2	2
12	Team assessment	1	1
13	Organisational culture	1	1
14	Employees experience	1	1
15	Employee qualification	1	1
16	Employee competence	1	1
17	Channel of communication	1	1

Table 6.33 above shows the identified Intellectual Capital themes from the interview analysis. 17 factors of intellectual capital were identified with “employee training and education”, “information system,” “research and development” and “innovation and technology” being the most frequently talked about Intellectual Capital themes across the 20 interview sessions. While on the contrary,

“employee qualifications”, “employee competence” and “channel of communication” were least discussed.

#### **6.2.4 Employee Training and Education**

According to Table 6.33 above, most interviewees (10 sources) confirmed that “employee training and education” is the most recognised Intellectual Capital component in the annual financial statements of insurance companies in Nigeria. This can be observed in the statements below.

*“If the structure of the company is ok, the company will move forward. So, we have a company that takes care of the training and retraining of employees and staff. We call for training periodically; marketers will go on for it, and managers will go for theirs two or three times every year” (Respondent A).*

*“We have a data-driven system, and we have data projection; all the processes within the company, however, interwoven, are involved in continuous learning to match up with current demands. This is because we review processes, systems, applications and people continuously” (Respondent D).*

*“This is because when you train staff, you are not able to say if the training would add more; you are training the staff so they can penetrate the market better and have a larger customer base. However, training the staff does not tell whether the training will amount to this staff bringing in 100 customers. That is when we say there is no standard value or formula to measure what Intellectual Capital is going to bring forth” (Respondent F).*

*“We have portfolio analysis and department enumeration techniques that the management uses. So if a particular department is not contributing as expected to the portfolio, the personnel in that department are being trained and re-trained so that they will add value to the firm” (Respondent G).*

*“As we speak now, training is going on and it is done weekly. It is basically for people to meet up with objections and to proffer solutions to difficulties encountered outside. This is so that when go back, they can meet up with the demand of the current market” (Respondent L).*

*“In my organisation, what we do is that we organise frequent training and retraining, both in Nigeria and outside Nigeria. We believe that when the human capital is empowered, the available resources will be properly managed and productivity will be increased. When the assets we have is improved, we will have more return on the assets, and there will be a high return on the capital employed” (Respondent M).*

*“At the organisational level, one major thing usually captured is capacity development. Learning and development is a major thing that is captured in the internal report” (Respondent R).*

*“The best I can say on this question is the fact that we have investors, who want to know how much we have spent on training, through that we measure what we have spent on training yearly”. “Every year, we have a training budget, and it is also stratified according to level, and we follow up on the implementation of the budget” (Respondent T).*

### **6.2.5 Information System**

Another Intellectual Capital component that is frequently spoken of during the interview sessions is the “information system/management” of the companies. The majority of the respondents attested that information in whatever capacity is treated with a high level of importance as this can have a ripple effect on every aspect of the company. These can be observed in the statements below.

*“So, there has to be a proper channel of information passing across within the organisation. This is because whatever is done in sales affects me; what is done in my department affects the budget department and then HR. So, if the information is not properly passed across, I*



*don't think the company will stand, and I don't think we will be among the top four. So, we have a good network of how we pass information” (Respondent B).*

*“The information that goes out is well monitored; we have data security and protection processes and policies, and protection of our intellectual properties, not just protecting the information of staff or leakage of internal information but ethically driven standards to ensure the information that gets to the public are fair and truthful”. “So most insurance companies like ours incorporate this as much as possible; we try to put enough information to get stakeholders and outsiders to see the value, but putting a valuation to it is what is missing” (Respondent D).*

*“An investor, just looking at the financial statements will not see the value of staff because it is not recognised anywhere; they are only seeing the financial performance of the company and probably conclude to say they must have good people managing the company” (Respondent H).*

*“Yes, that happens because any client feedback we get is even from staff. Our staff are our number one client, so from staff, supervisors, and marketers under us, any information we get, we incorporate that into the company, either good or bad” (Respondent J).*

*“Once the information is brought in, probably from the downline or a customer, the company tries as much as possible to process that information, going through management decisions and everything, and whatever decision the management takes is what stands” (Respondent N).*

*“Managers do not have enough information and data on other managers in terms of spiritual capital, customer capital, social capital and human capital; these components are diverse from one manager to another, most especially spiritual capital. This is because our religion and beliefs are different; it differs from one another. Some are Christians, some are Muslims,*

*some are traditional worshipers, and some do not even practice any religion, which makes it very difficult to determine the significance of the performance” (Respondent S).*

### **6.2.6 Research and Development**

Research and development is another Intellectual capital component among the list which is frequently mentioned. The respondents emphasised the importance of research and development and how it can improve the value of a company.

*“We do what we call customer feedback in my company to know how and in what ways we can satisfy the needs of our customers. Regularly, we conduct market research to know which area and how our products reach those at the bottom of the economy. We do a market survey to know which areas we can well manage our people” (Respondent C).*

*“Another aspect is the research: The insurance company have a unit that invests in product design and market segmentation for product development, which entitles that company to future cash flows, which speaks to future value”. “Generally, research and development seem to be the most pronounced IC on the financial statement for now, that is if any. So, some do the research but do not put a value to it. So, at present, it is very hard to see. Except you go into other industries like pharmaceutical, telecom, etc., in the insurance company, I have not seen intellectual capital being incorporated on the financial report in Nigeria” (Respondent D).*

*“The part that is captured is relating to research and development that is done in-house, and it is capitalised on the faces of the financial statement” (Respondent P).*

However, respondent “T” opined that research and development are not captured in the annual financial statements because there is no regulatory dimension to it.

*“Research and training are not captured, and there is no regulatory dimension to it being captured, but if there is, it will also help” (Respondent T).*

### **6.2.7 Innovation and Technology**

The fourth Intellectual capital theme spoken about is innovation and technology. According to the respondents, innovation and technology are key intellectual capital components mentioned by interviewees. Below are comments from respondents:

*“Another part that is being captured is the Prestige business solutions; it is a software that was developed in-house using an expatriate to develop an in-house software that is suitable for the operational efficiency of the organisation. Because it was developed in-house, it was classified as an intellectual property, and it is recognised on the statement of financial position” (Respondent P).*

*“In this age in my company, we invest more in ICT, and we combine ICT with human capital because the world is a global village, so you can easily connect with your clients and competitors and with whatever is going on around you for information at your tips. By doing so, it will add to the value of the organisation and client” (Respondent M).*

*“The impact of intellectual capital in insurance companies cannot be over-emphasised. Such impact enhances the competitive advantage, facilitating innovations, enhancing the competency of employees and increasing organisational performance” (Respondent A).*

### 6.2.8. Answering Interview Questions

#### *Non-recognition of intellectual capital and the value of listed insurance companies*

The extent to which non-recognition of intellectual capital can affect the value of listed insurance companies in Nigeria was discussed by the interviewees. The respondents opined that non-recognition of Intellectual capital by an insurance company will negatively impair the standard of the company, and reduce the interest shown by investors and the overall performance of the company, as stated below.

*“When intellectual capital is ignored in an insurance company, it declines the company’s standard. When the standard is compromised, it declines the interest of investors. This is because investors will look for the best standard and high intellectual competence and financial competence; competence in general of a company. When that aspect is lacking, the rating of that company will be below, both for the stock exchange and rating on the insurance company” (Respondent K).*

*“Yes, it would because going by the human capital, when you look at Abraham Maslow's theory, along the hierarchy, we talk of recognition and once you do not recognise the input and impact of people, they will not give their best; their productivity goes down. Once that goes down, it will affect the overall performance of the company, and as such, the profit margin will drop” (Respondent L).*

*“As mentioned earlier, the role of human and relational capital cannot be overemphasised in a company, and when it is not recognised, it affects most of our production. So, the value of intellectual capital has a positive and negative impact on the value of the organisation” (Respondent M).*

One respondent posited that Intellectual capital has not been properly recognised in the financial statements of insurance companies as stated below

*“Presently, the role of intellectual capital has not been properly recognised in the financial statements of the insurance company, but I believe with time, it will be” (Respondent M).*

While another believes it has not been captured at all, so does not affect the value of the company.

*“Currently, it is not affecting the value because it is not being recognised” (Respondent H).*

### 6.2.9 Other Themes as Related to the Subject of the Research

**Table 6.34: Other Themes as Related to the Subject of the Study (interview)**

Themes	Sources	References
Intellectual capital	15	27
Intellectual Capital (IC) recognition and value of shares	12	17
Prudent financial management	12	12
Investors’ Perception of IC Information	10	12
Human capital	7	10
Intellectual capital for value creation and profit management	8	9
Non-recognition of IC	7	8
Manager’s view of the measurement of IC	4	7
Integration of IC indices for Values development	3	6
Structural capital	2	4
Regulations	3	4
Organisational growth	2	4
Relational capital	1	1
Organisational capital	1	1
Measurement of IC	1	1
Components of IC	1	1
Capital market	1	1
Annual report	1	1

Researcher adapted 2022

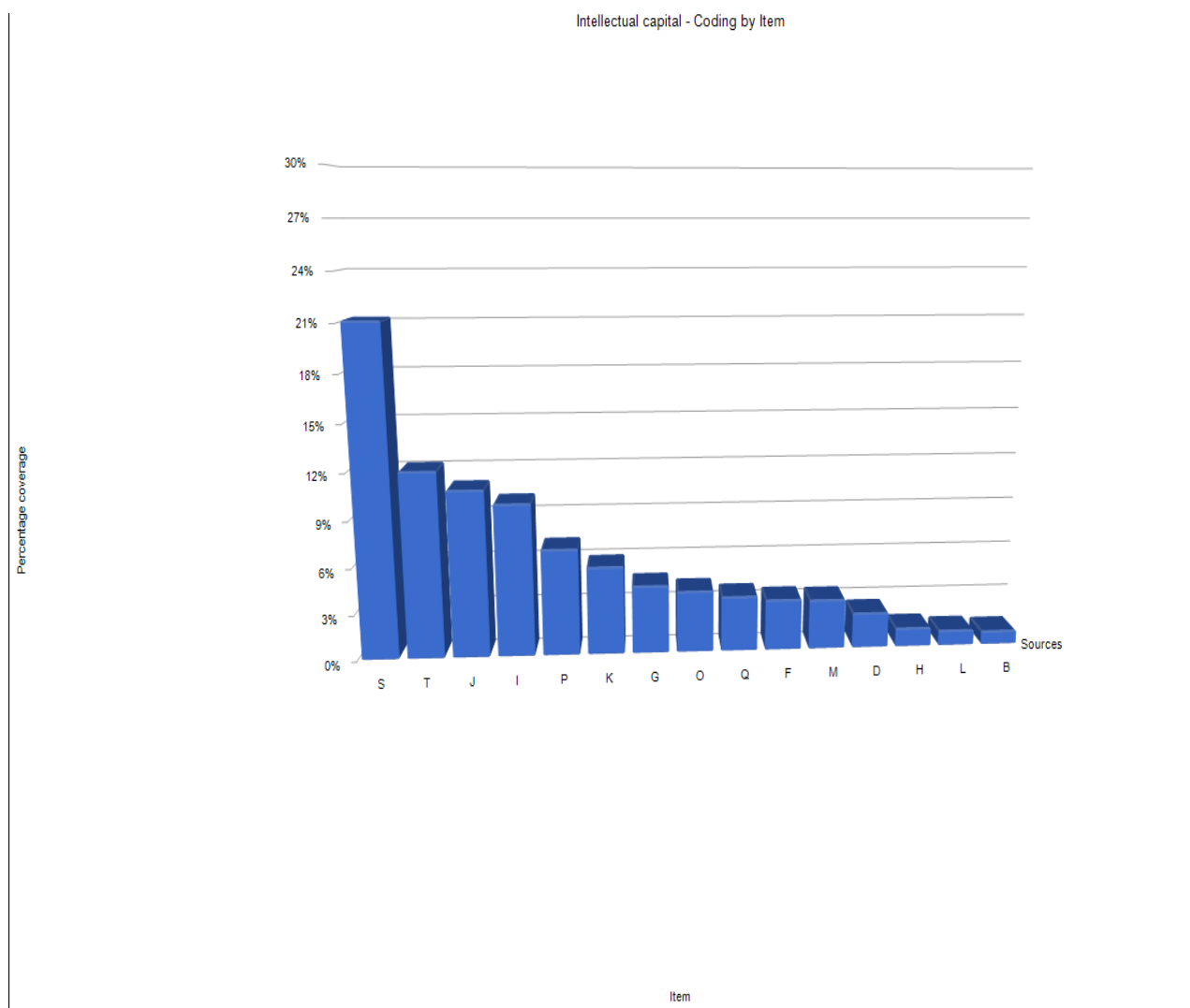
Table 6.34 shows how the respondents have mentioned and spoken about the subject matter.

Respondents from 15 insurance companies mentioned the words “Intellectual Capital” 27 times

between them during the whole interview sessions at various times. Intellectual Capital recognition and Values of shares were mentioned by participants from 12 insurance companies 17 times. This indicates the relevance of Intellectual Capital recognition and value impact on shares of the insurance companies.

## 6.2.10 Intellectual Capital Themes Among the Interviewees (Coding / Item)

### 6.2.10.1 Intellectual capital - Coding/item

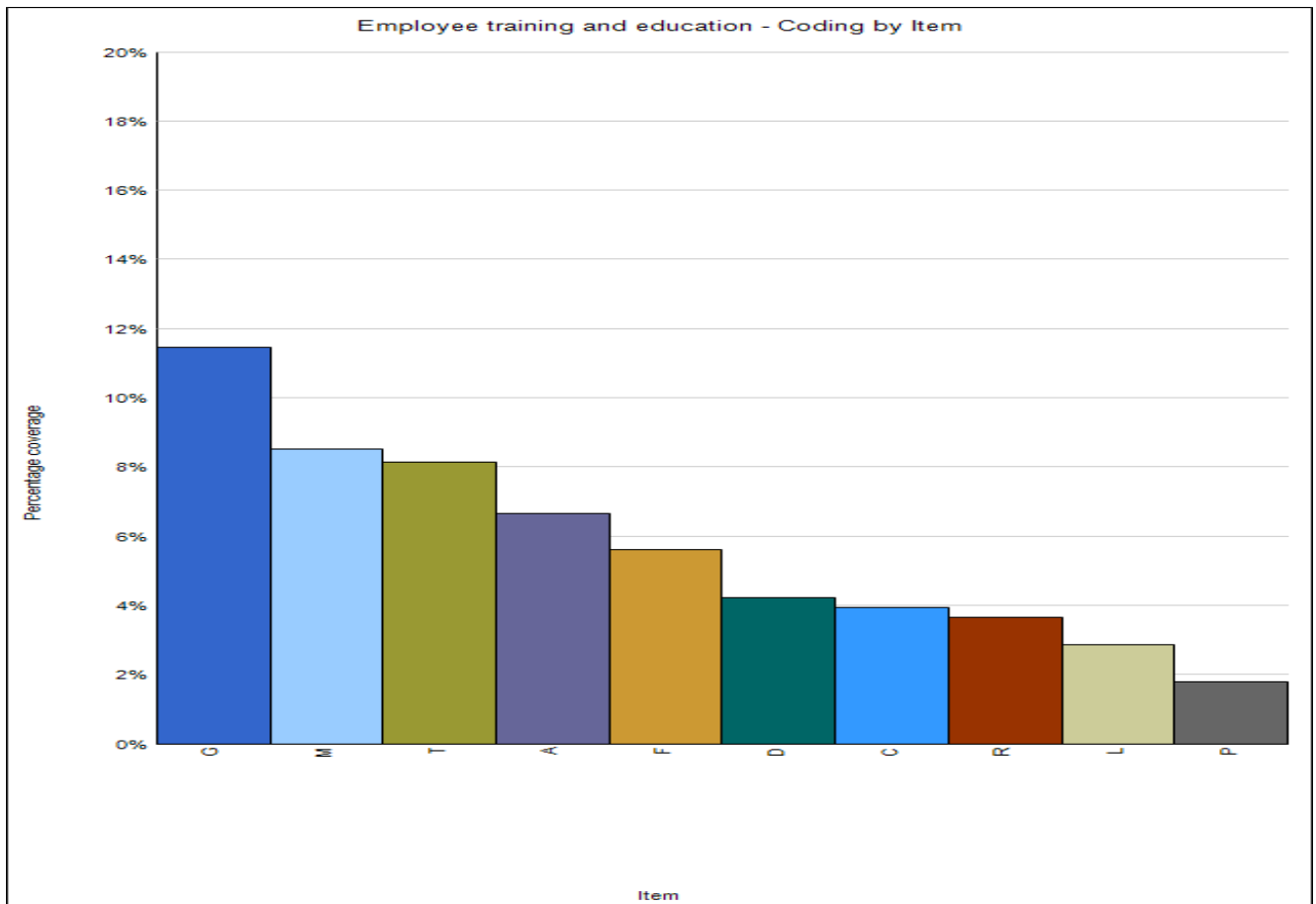


**Figure 6.9 Intellectual Capital -Coding/item**

Figure 6.9 above shows the Intellectual Capital theme as an item in the coding. Emphasis on intellectual capital and its conceptualisation was dominantly made by interviewees in insurance

companies S, T, J, I and P. Insurance companies H, L B have fewer references to intellectual capital components as displayed above.

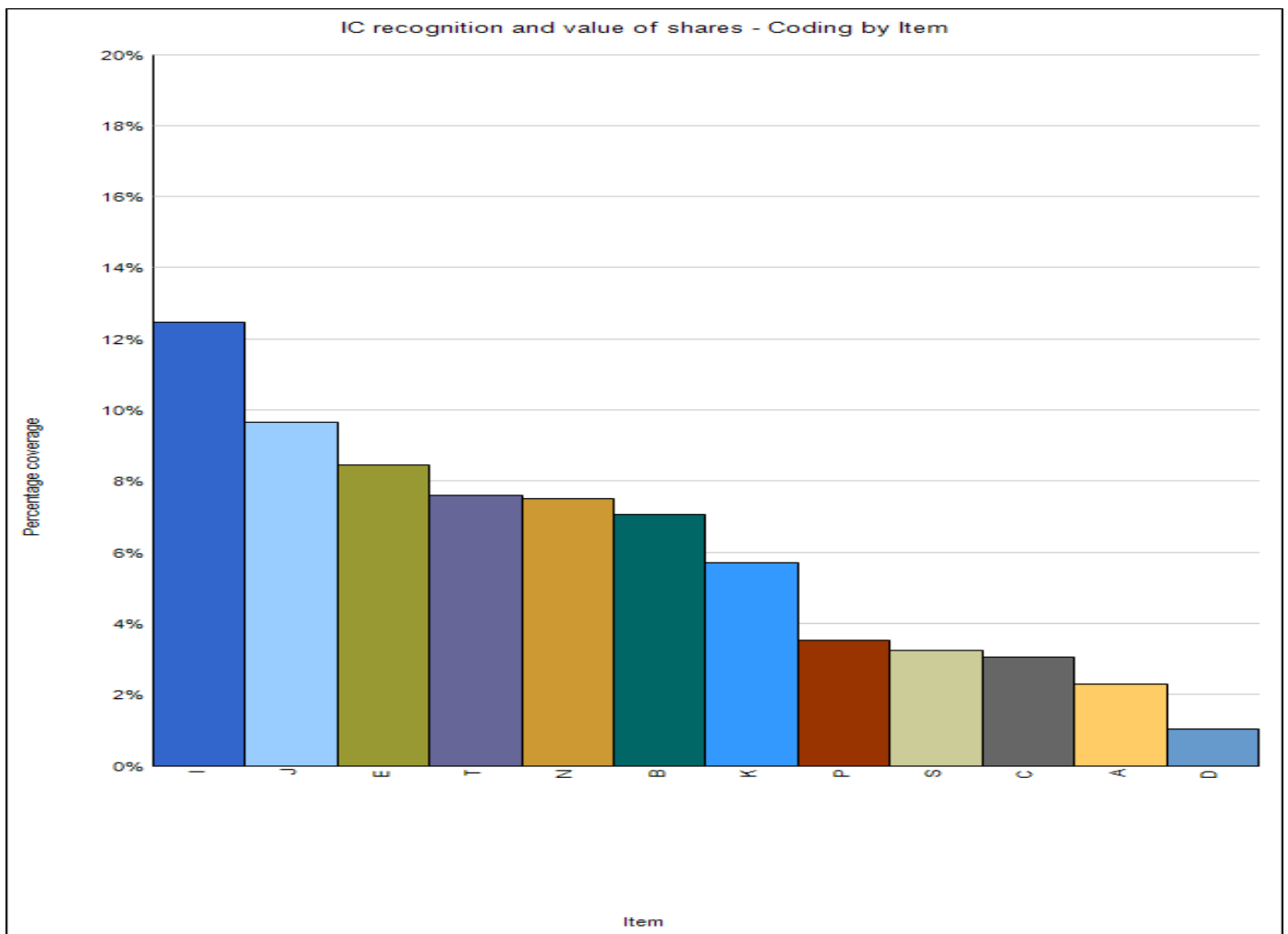
### 6.2.10.2 Employee training and education – Coding/item



**Figure 6.10 Employee training and education – Coding/ item**

Emphasis on training and education and its conceptualisation was dominantly made by insurance companies G, M, T, A and F while interviewee P spoke least of it. Insurance company G however, spends more than 50% of the total aggregation discussing employee training and education. This implies that insurance company G holds Intellectual Capital employee training and education very highly.

### 6.2.10.3 Intellectual Capital (IC) Recognition and Value of Shares- coding/item



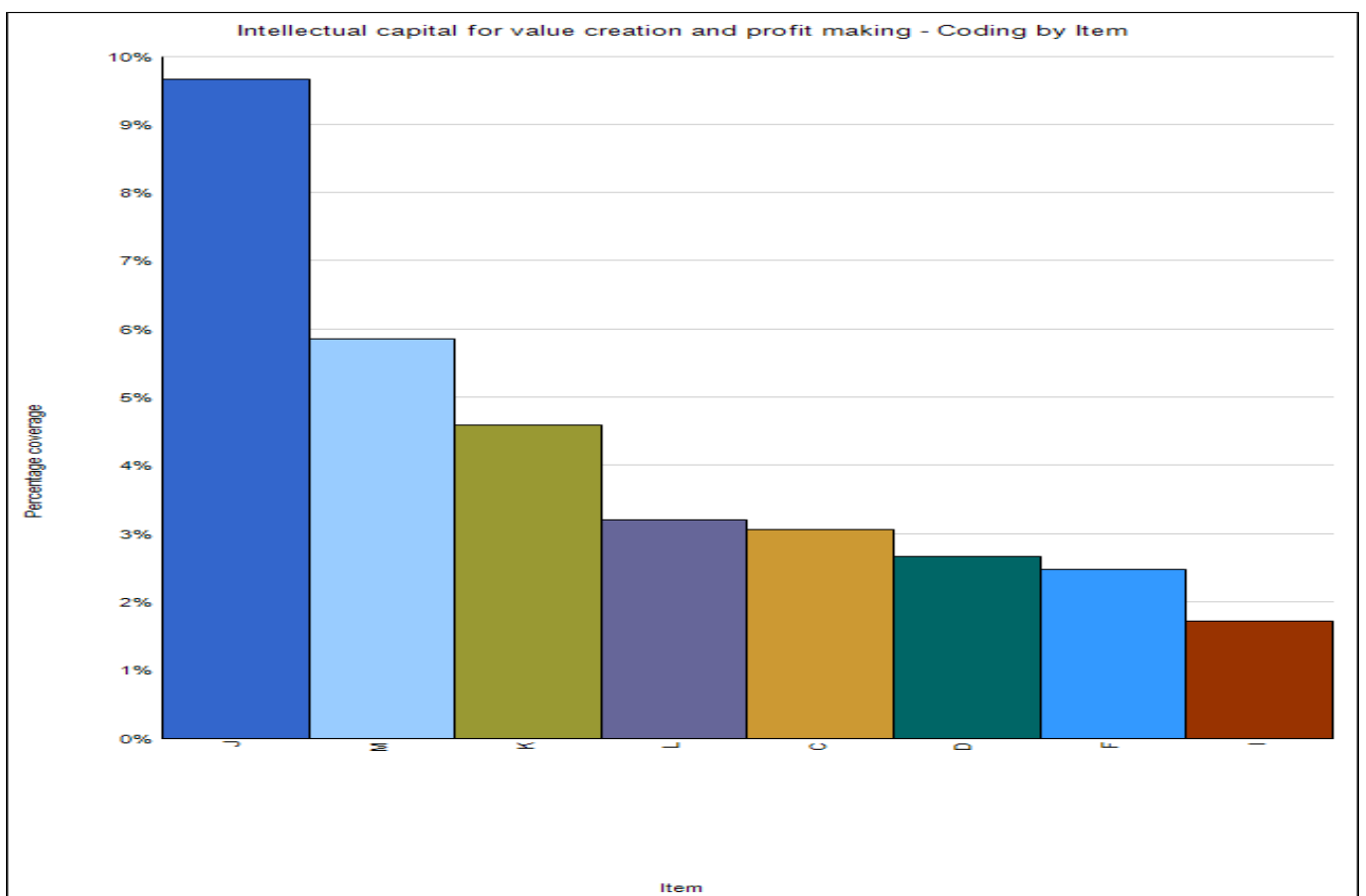
**Figure 6.11 IC Recognition and Value of Shares- coding/item**

Based on Figure 6.11 above, it is evident from this study that more than 50% of the total number of respondents expressed interest in Intellectual Capital recognition and how it affects the value of shares within the company. This supports the argument made by Sherif and Elsayed (2015, p.19) that



measuring the full value of corporations should be a priority for firm leaders, investors, and other stakeholders, especially in the service-oriented industry of insurance. The market value of shares of insurance companies is enhanced by the investment in Intellectual Capital.

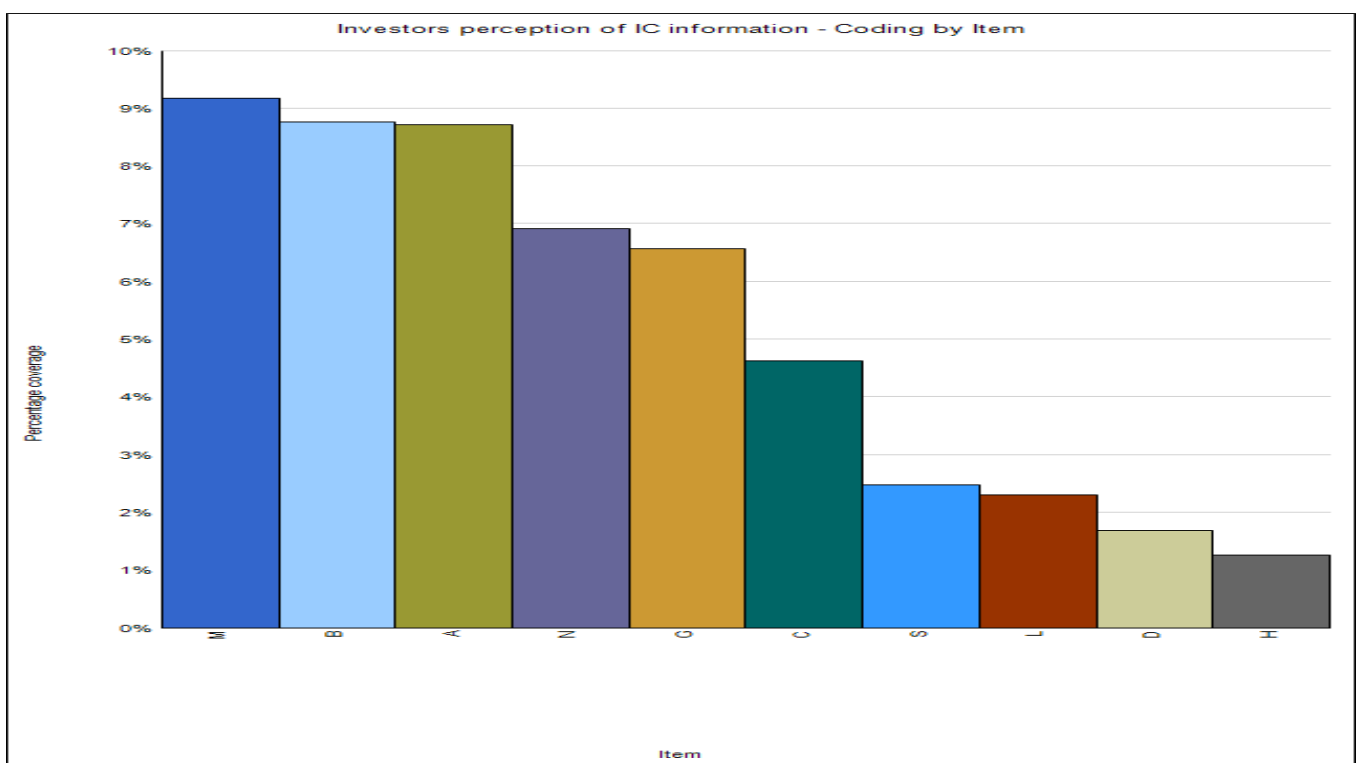
#### 6.2.10.4 Intellectual Capital for Value Creation and Profit making-Coding / item



**Figure 6.12: Intellectual Capital for Value Creation and Profit Making-Coding / item**

As regards Intellectual Capital and profit making, respondents agreed that value is created by the companies and increased profitability by Intellectual Capital attributes as illustrated by Figure 6.12 above. Insurance companies J, M, K, L, C, D, and F attested to this.

### 6.2.10.5 Investors' Perception of Intellectual Capital- Coding/item

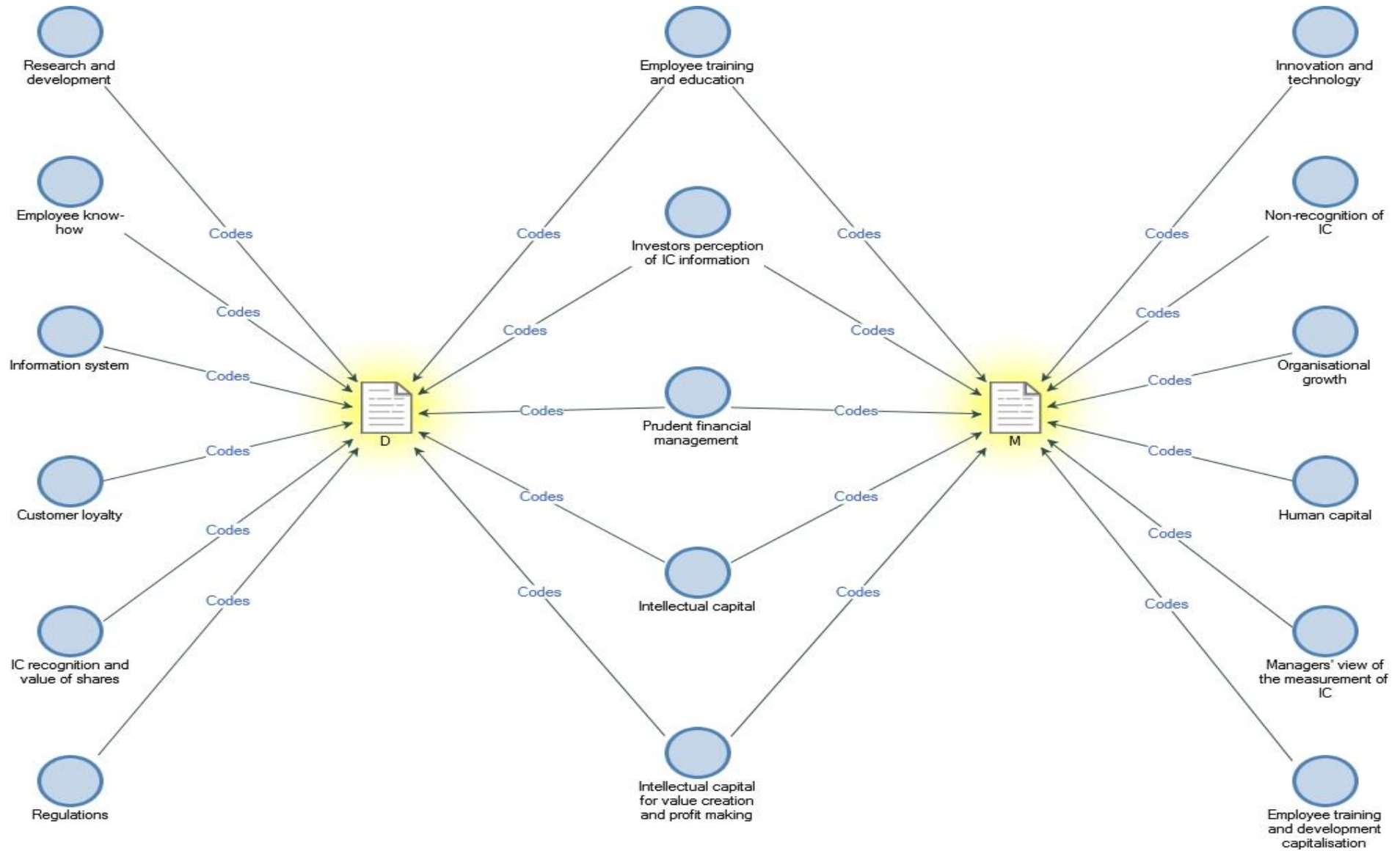


**Figure 6.13 “Investors’” Perception of Intellectual Capital- Coding/item**

Another issue that gained the attention of respondents was investors' perception of Intellectual Capital information. The importance of investors' perception cannot be over-emphasised given the findings indicated by the bar chart in Figure 6.13 above. Insurance companies M, B, A, N, G and C indicated more than half of the outcome as against Companies S, L, D, and H which indicated lower outcomes.



**6.2.10.6 NVivo Comparison Model Between Insurance Company D and M on IC Themes**



**Figure 6.14: Comparison Between Insurance Companies D and M on Intellectual Capital Themes**

Figure 6.14 above compares the interview response between interviewees in insurance companies D and M. The middle themes are the common themes on intellectual capital between interviewees in insurance companies D and M while the left and right themes are the differences between them. Respondents D and M shared some common thoughts on employee training and education, investors' perception of Intellectual capital information, prudent financial management, intellectual capital, and intellectual capital for value creation and profit making. However, they expressed different concerns about innovation and technology, research and development, regulations, etc. This shows companies stand on some IC factors and the differences between what an insurance company emphasizes as an IC and another other. D and M are among the top three insurance companies with the highest share values in Nigeria.

6.2.10.7 Intellectual Capital Themes NVivo Classification Model



Figure 6.15 Intellectual Capital Themes NVivo Classification Model

Figure 6.15 above shows the NVivo classification model for Intellectual Capital Themes as identified in the transcribed interview. Respondents categorised Intellectual Capital into human capital, structural capital, relational capital and organisational capital.

**Human capital** components of intellectual capital were said to be punctuality, education, health, communication skills, people management, problem-solving, mental and emotional well-being and technical and on-the-job training.

**Organisational capital** components were said to include policy, training, tools, structure, principles, stories, mission, and vision.

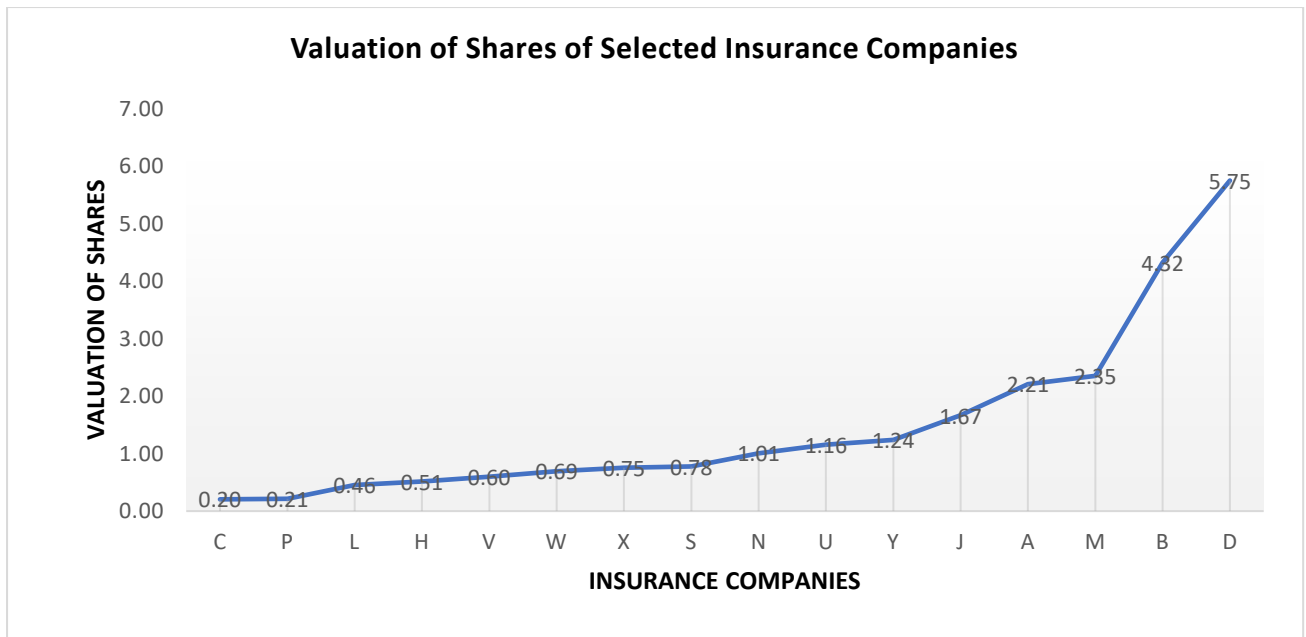
**Relational capital** components are stakeholders, contacts, partnerships, employee branding, customer relationships and brand/awareness.

**Structural capital** components are principles, data, processes, documentation, procedures, method, intellectual properties, tools and automation.

### **6.3 Content Analysis of Downloaded Financial Statements and Annual Reports of Listed Insurance Companies**

#### **6.3.1 Quantitative Analysis of Financial Statements and Annual Reports**

16 of the Insurance companies sampled had their financial statements and annual report available online at the time of this study. These documents were downloaded from NAICOM's website for each of the insurance companies and were subjected to content analysis through SPSS software. NAICOM is the regulatory body of the insurance industry in Nigeria.



**Figure 6.16: Line Graph on the Valuation of Shares of Selected Insurance Companies**

**Table 6.35: Independent Sample T-test on the Difference in the Valuation of Shares of Insurance Companies Based on Location**

Location	N	Mean	SD	df	t.cal	Sig	Decision
Lagos	14	1.58	1.63	14	0.55	0.589	NS
Abuja	2	0.91	0.45				
Total/Average	16	1.49	1.54				

Impact of Intellectual Capital on Valuation

$$y = L. \beta_1 + H.E. \beta_2 + C. \beta_3 + T. \beta_4 + P. \beta_5 + \varepsilon$$

L.O = Location of Organisation

H.E = Employee No, Salary/Wages, Educostperemployee

C = Turnover, Marketing Edx

T = Total IT expenses

P = Admin Expenses, CostPer Proces, Investment in Infrastruc.



$$y = (L.O\beta) + \left( E.No\beta_1 + \frac{S}{W}\beta + ECE\beta \right) + (T.O\beta + MEx\beta) + (T.ITEx\beta) + (A.Ex\beta) + \varepsilon$$

### 6.3.1.2 Intellectual Capital Reporting Practices

The measurement of Intellectual Capital takes up four different forms or categories Human Resources, Customers, Technology and Processes (The Danish Trade and Industry Development Council, 1997). Each of these categories possesses various statistical information where measurements can be drawn as follows:

**Table 6.36: Measurement of Intellectual Capital Reporting**

Category	Measurement
Human Resources (Human capital)	Number of Employees, Board and Management Composition and education cost per employee as they relate to the value per employee, employee satisfaction and human resource turnover
Customers (Relational capital)	Marketing Expenses and other Administrative Expenses as they relate to customers' satisfaction, repeat purchases and long-term relations
Technology (Structural capital)	Total IT investment and number of internal/external IT customers as they relate to IT literacy of the organisation.
Processes (Strategic capital)	Cost per process and investment in infrastructure as it relates to the reputation of the company, quality and shorter turnaround time.

(The Danish Trade and Industry Development Council, 1997).

### 6.3.1.3 Valuation of Shares of Selected Insurance Companies

The asset-based approach to the valuation of shares is determined from the relationship between the assets, liabilities, preference share capital and the number of equity shares of an organisation as expressed below:

*Value per share*

$$= (\text{Net Assets} - \text{Preference Share Capital}) / (\text{No. of Equity Shares})$$

(Cleartax, 2022)

**Table 6.37: Valuation of Shares of Selected Insurance Companies**

<b>Insurance company</b>	<b>Valuation of Shares</b>	<b>Mean Rank</b>
D	5.75	1st
B	4.32	2nd
M	2.35	3rd
A	2.21	4th
J	1.67	5th
Y	1.24	6th
U	1.16	7th
N	1.01	8th
S	0.78	9th
X	0.75	10th
W	0.69	11th
V	0.60	12th
H	0.51	13th
L	0.46	14th
P	0.21	15th
C	0.20	16th
<b>Mean</b>	<b>1.49</b>	
<b>Standard Deviation</b>	<b>1.54</b>	

Table 6.37 shows the valuation of shares of selected listed insurance companies. The 16 sampled insurance companies across Lagos and Abuja. The valuation of shares was determined by the relationship between net asset of the organisation, preference share capital and the

number of equity shares (Asset-Based approach). The table showed that D Insurance Plc had the highest valuation of shares (5.75) and was ranked 1st. B Insurance Plc company ranked 2nd (4.32), M Insurance Plc ranked 3rd (2.35) while C Insurance Plc was ranked 16th (0.20). This is also presented in Figure 6.18 as shown above. The mean value of shares was 1.49. Only five of the organisations had their value of shares greater than the mean valuation of shares.

#### 6.3.1.4 Independent Sample T-test on the Difference in the Valuation of Shares of Insurance Companies Based on Location

**Table 6.38: Summary of sample t-test**

Location	N	Mean	SD	df	t.cal	Sig	Decision
Lagos	14	1.58	1.63	14	0.55	0.589	NS
Abuja	2	0.91	0.45				
Total/Average	16	1.49	1.54				

Table 6.38 shows the summary of the independent sample T-test on the difference in the valuation of shares of insurance companies based on the geographical location of the selected insurance companies. The table showed that 14 of the insurance companies were Lagos-based while just two of them are Abuja-based. The mean value of the shares of the companies based in Lagos was pegged at 1.58. This is higher than the average valuation of shares of all insurance companies at 1.49. The average valuations of the shares of the two insurance companies were valued to be 0.91. This is lower than the average valuation of shares of all selected companies (1.49). This difference is however not statistically significant with a degree of freedom of 14, a calculated t value of 0.55 and a sig value of 0.59 (greater than the P value 0.05). This showed that the values of listed insurance companies in Lagos are higher in value than those of listed insurance companies based in Abuja.

### 6.3.1.5 The Impact of the Practice of Intellectual Capital Reporting in Abuja and Lagos on Valuation of Shares.

**Table 6.39: Pearson Correlation on the Impact of the Practice of Intellectual Capital Reporting in Nigeria on Valuation of Shares.**

<b>The Practice of Intellectual Capital Reporting</b>	<b>N</b>	<b>df</b>	<b>r<sup>2</sup></b>	<b>Sig</b>	<b>Decision</b>
Value-added Human capital	16	15	-0.174	0.520	Not Significant
Value-added Structural capital	16	15	0.219	0.416	Not Significant
Value add. Relational capital	16	15	-0.146	0.618	Not Significant
Business recipe (strategic)	16	15	0.595	0.015	Significant
Location of Organisation	16	15	-0.146	0.589	Not Significant

Table 6.39 shows the summary of the Pearson Correlation on the impact on the valuation of shares of the practice of Intellectual Capital reporting in Nigeria. The measurement of the Intellectual Capital reporting consisted of the Relational Capital component, Human Capital component, Structural Capital component, and the Business Recipe (Strategic) capital component. The location of the insurance companies was also added to provide more insight into the result of the research. A positive relationship depicts that an increase in one variable would consequently cause an increase in the other variable and vice versa while a negative relationship would mean that an increase in one variable would consequently cause a decrease in the other variable and vice versa. The result showed that there exists a negative impact of the location of the insurance company on the valuation of shares (-0.14) which was not statistically significant ( $0.589 > p\text{-value } 0.05$ ). There is a negative relationship between the Human Capital component and the valuation of shares (-0.17) which was not statistically significant ( $0.52 > p\text{-value } 0.05$ ). There is a positive relationship between the investment in structural capital and the valuation of shares (0.219) which was not statistically significant

(0.416 > p-value 0.05). There exists a negative relationship between the Relational Capital component and the valuation of shares (-0.146) which was not statistically significant (0.618 > p-value 0.05). However, there is a positive relationship between the Business recipe component and the valuation of shares (0.595) which was statistically significant (0.015 < p-value 0.05).

### **6.3.2 Qualitative Analysis (Content Analysis) of Intellectual Capital Information in Financial Statements and Annual Reports between 2015 - 2020**

The annual reports and financial statements of 24 listed insurance companies served as the data for the qualitative aspect of this case study (Table 6.42). The annual reports were downloaded from the sites of the insurance companies, the Securities and Exchange Commission (SEC) and the National Insurance Commission of Nigeria (NAICOM) and were all in PDF format. Some of the reports were text-based PDFs while others were scanned PDFs. The scanned PDFs were converted into text form with an online conversion platform, OCR (<https://www.ocr2edit.com>) using its premium account. All the reports, both in text and PDF were imported into computer-assisted qualitative data analysis software, NVivo version 12, for data analysis. The reports were content analysed with the text search function. The search was carried out with a set of pre-determined terms compiled by the researcher based on the review of the literature (Table 2.9). The essence was to search the reports for the terms connected with Intellectual Capital.

The sections of annual reports analysed in this research were the Chairman statements, letters from the Chairman, chief executive reviews, director reviews, reports of directors, sections of the board of directors, operation and financial reviews, text captions in photos, corporate governance reports, outer and inner cover pages and remuneration reports.

The text search function in NVivo allows researchers to search for specific words in the documents imported into the software. The software has some special characters that include the use of wildcards to search characters; other special characters include a search with "AND,

OR, Not, required, prohibit, fuzzy and near". Researchers are also provided with the functions of finding matches in their search. Researchers can search with stemmed words, synonyms, specialisations, and generalisations. The search was carried out with Intellectual Capital items and components.

The output of the search results produced a summary, reference, pdf, and a word tree. The summary aspect of the results showed the number of times the search string appeared in the total number of documents imported into the software. The results from the reference were coded with the name of the search string. For instance, the search results on skills under reference were coded with employee skills. The codes were further queried both manually and with the software to ensure the parts of the reports under each code appropriately capture the component or form of Intellectual Capital that has been content analysed. The results were exported into both Microsoft Word and Excel format followed by presentation and interpretation of the findings.

**Table 6.40: Schedule of Listed Insurance Companies and Number of Annual Reports analysed**

<b>Insurance Company</b>	<b>Number of Annual reports Analysed</b>
A	6
U	4
AC	6
D	6
AJ	2
AD	1
H	5
C	5
AE	1
AF	6
J	5
AG	6
B	6

W	6
M	6
N	5
P	6
AH	6
X	6
AI	5
S	2
W	6
V	4
Y	5
<b>TOTAL</b>	<b>116</b>

Table 6.40 shows the anonymised names of the listed insurance companies and the 116 annual reports and financial statements analysed. 24 insurance companies' annual reports for six years totalled an expected 144 annual reports and financial statements, however, 116 total annual reports in volume were analysed. This represents 80.5% of the expected total annual reports. There were variations in the total number of documents analysed from each company. The maximum obtainable number of documents analysed for a company is six, which is the number of annual reports analysed ranging from the years 2015 to 2020. The minimum obtained was one. The reason for this was due to the lack of website publication of annual reports because of progressing deals of various amalgamations and takeover bids among some of the listed insurance companies. This was a major hindrance to securing interview participants as the insurance companies were protecting their strategic secrets of survival to satisfy the recapitalisation regime of Minimum Paid-up Capital (MPC) (Chapter 5, p.229).

### 6.3.2.1 Frequency of Intellectual Capital Items Recognition in Financial Statements and Annual Reports by Year

The summary of the frequency counts of the Intellectual Capital items is presented in Table 6.41, as a result of the content analysis carried out on the annual reports and financial statements of the listed insurance companies between the years 2015 to 2020.

**Table 6.41:** Frequency of Intellectual Capital items' recognition in financial statements and annual reports

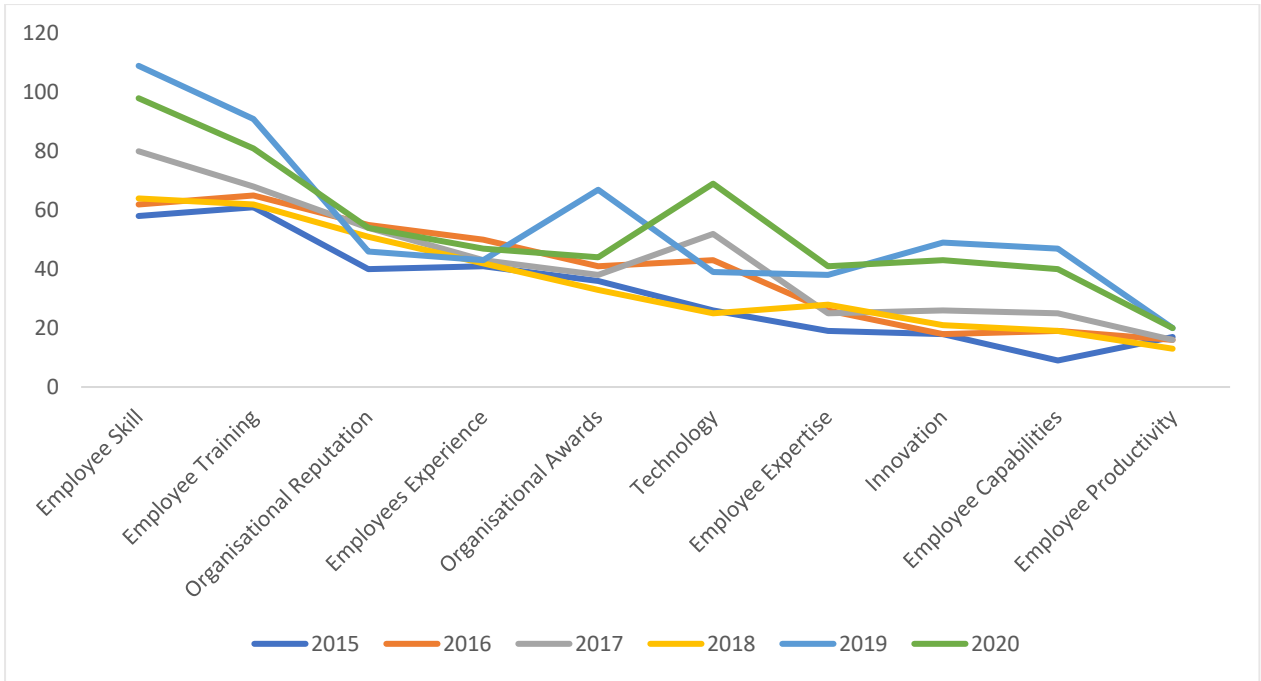
<b>Intellectual Capital</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Average</b>	<b>Total</b>
Employee Skill	58	62	80	64	109	98	79	471
Employee Training	61	65	68	62	91	81	71	428
Organisational Reputation	40	55	54	51	46	54	50	300
Employee Experience	41	50	43	42	43	47	44	266
Organisational Awards	36	41	38	33	67	44	43	259
Technology	26	43	52	25	39	69	42	254
Employee Expertise	19	26	25	28	38	41	30	177
Innovation	18	18	26	21	49	43	29	175
Employee Capabilities	9	19	25	19	47	40	27	159
Employee Productivity	17	16	16	13	20	20	17	102
Employee Qualification	10	11	18	15	25	16	16	95
Employee Competence	8	17	17	13	23	16	16	94
Organisational Benefit Plan	16	16	16	16	13	17	16	94
Employee Motivation	14	11	15	11	18	12	14	81
Organisational Culture	4	9	11	8	13	12	10	57
Management Philosophy	8	10	8	6	8	8	8	48
Employee Teamwork	6	5	7	7	8	6	7	39
Clients Training	6	5	7	5	6	5	6	34
Research and development	3	5	2	1	2	2	3	15
Organisation structure	1	2	3	0	3	3	2	12
Employee know-how	2	2	2	2	2	2	2	12
Networking	2	4	1	1	1	0	2	9
Intellectual property	2	2	0	0	1	0	1	5

Researcher adaption, 2022

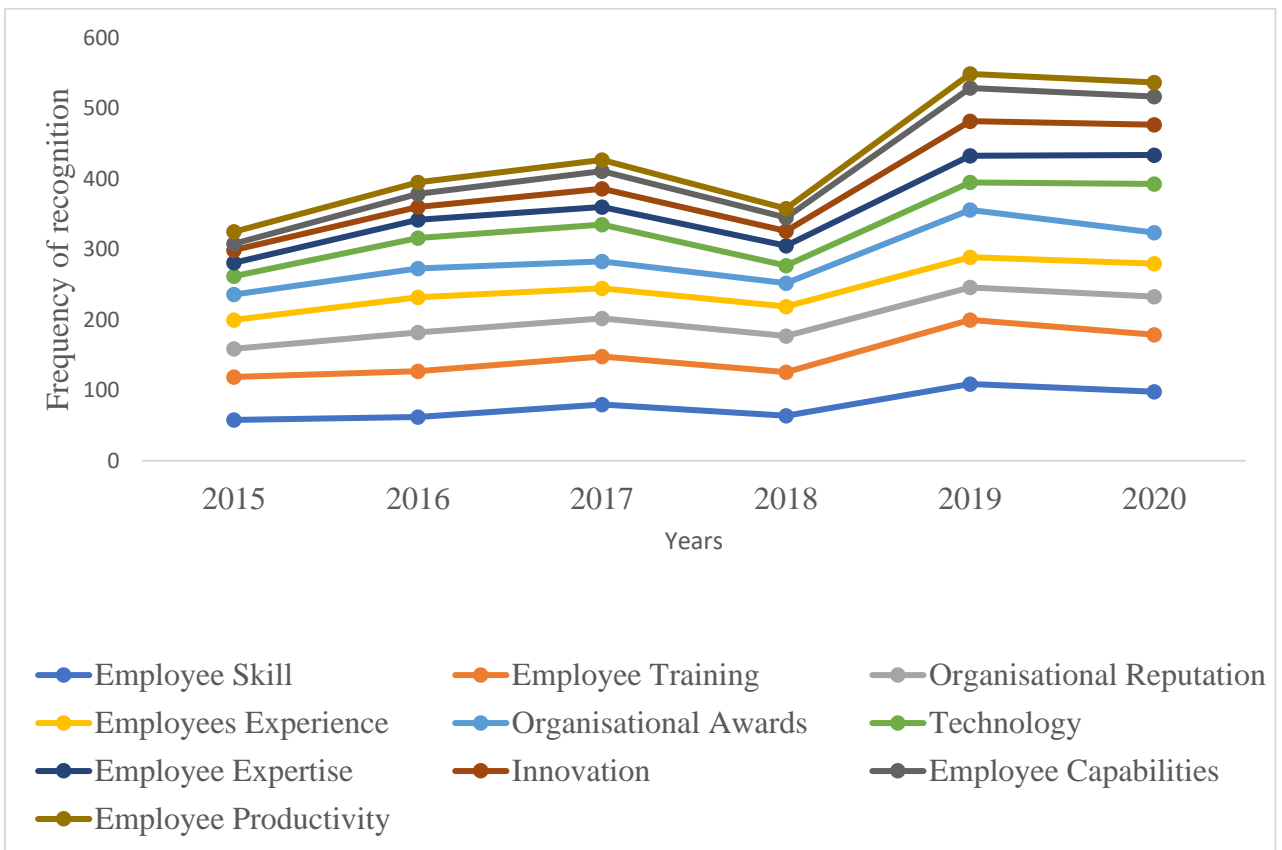


Table 6.41 shows the frequency of disclosure and recognition of Intellectual Capital components in the annual reports of the participating insurance companies. The following Intellectual Capital components were recognised and reported in descending order of frequency: employee skill, employee training, organisational reputation, employee experience, organisational awards, technology, employee expertise, innovation, employee capabilities, employee productivity, employee qualification, employee competence, organisational benefit plan, employee motivation, organisational culture, management philosophy, employee teamwork, clients training, research and development, organisation structure, employee know-how, networking, and intellectual property.

From Figure 6.18 below, employee skill, employee training, organisational reputation, employee experience, organisational awards, technology, employee expertise, innovation, employee capabilities, and employee productivity were frequently recognised and reported as intellectual capital in the annual reports of insurance companies. The consistency of most of the intellectual capital items disclosed and recognised in the annual reports, to some extent, was observed. (Figure 6.18). However, the recognition of intellectual capital items decreased in the year 2018 (Figure 6.19), but there was a mixed movement in 2020 as the rate of recognition increased in some and decreased in others. The year 2018 was uncertain because it was the year of economic instability in the insurance industry resulting from the uncertainties surrounding the requirements and strategy of recapitalisation regimes announced by NAICOM, vis-à-vis Tier Based Minimum Solvency Capital (TBMSC), Risk-Based Capital (RBC) and Minimum Paid-up Capital (MPC) regimes. (Chapter 5, p.222).



**Figure 6.17:** Summary of most frequent Intellectual Capital items



**Figure 6.18:** Summary of most frequent Intellectual Capital items by year

### 6.3.2.2 Frequency of Intellectual Capital Items Recognition in Financial Statements and Annual Reports by Number of Companies

**Table 6.42: Content Analysis of Intellectual Capital Items Disclosure by Number of Companies**

S/N	Items of Intellectual Capital	No. of disclosing Insurance Companies
1	Employee Training	24
2	Technology	23
3	Organisational Reputation	23
4	Employee Skill	23
5	Organisational Awards	22
6	Employee Experience	21
7	Employee Expertise	21
8	Employee Capabilities	21
9	Innovation	21
11	Employee Motivation	19
12	Employee Productivity	18
13	Employee Competence	17
14	Organisational Benefit Plan	17
15	Employee Qualification	16
16	Organisational Culture	13
17	Customers/Clients Training	9
18	Management Philosophy	9
19	Employee Teamwork	9
20	Research and development	6
21	intellectual property	5
22	Networking	4
23	Employee know-how	4
24	Organisation structure	2

(Researcher adapted, 2022)

The result of the company-based analysis is shown in Table 6.42. The table shows the number of listed insurance companies that recognised and disclosed each Intellectual Capital item in

their annual reports. It showed that most of the 24 insurance companies sampled, recognised the following Intellectual Capital items in their annual reports in descending order: employee training, technology, organisational reputation, employee skill, organisational awards, employee experience, employee expertise, employee capabilities, innovation, employee motivation, employee productivity, employee competence, organisational benefit plan, employee qualification, and organisational culture.

It could also be observed that out of all the Intellectual Capital elements identified; employee training, technology, organisational reputation, employee skill, organisational awards and employee experience were the most frequently recognised Intellectual Capital elements across in financial reports of the insurance companies. On the contrary, networking, employee know-how and organisation structure were the least recognised across the board and are only recognised by a few insurance companies.

#### **6.3.2.3 Employee Skill**

The sampled listed insurance companies disclosed information on their employee training in respect of the company's acknowledgement of specialised skills of their employees, priority on employee skills, the relevance of skills, readiness to broaden employee skills through several training programmes, readiness to recruit more skilful employees, developing and maintenance of policy that promotes programmes that promote employee skills, investment in developing employee skills, encouragement for employees in all its forms for personal skill development, and maintaining a balance and mix of appropriate skills.

#### **6.3.2.4 Employee Training**

“Employee training” was the second most frequently reported Intellectual Capital item. Employee training includes promotion of staff training and professional development,

continuous training of board members, companies' empowerment of their workforce to meet up with the challenges of modern business, adequacy of staff training, organising specific training in some aspects like risk management, underwriting and effective claims management; training of employees without subjecting them to any disadvantage in their career development, promoting established parameters of staff training if any member of staff becomes physically challenged, recognition of trained personnel for auditing of Risk Management Framework, the nomination of employees to attend regular training programmes including on-the-job training, zero discrimination and openness of training for any member of staff, and promoting opportunities among staff to attend training locally and at international level.

#### **6.3.2.5 Organisational Reputation**

“Organisational reputation” was the third most frequently reported intellectual capital item. This item acknowledges organisational reputation as the most valuable asset of any company. It encompasses the protection of organisational image from being damaged since that can result in financial loss among other issues, coordination of communication to maintain companies' reputation with their various stakeholders, maintaining board members who do not tarnish the companies' image, controlling all factors that may adversely impact the image of companies, avoidance of unethical, illegal and unprofessional conduct that may have a negative impact on companies' image, and appropriate management of operational risks to balance the avoidance of financial losses and damage to the company's reputation. This item also includes companies' expectation of the highest level of conduct and ethical standards, setting up of appropriate tone and guidelines regarding the development and implementation of effective reputation, and protection of the company's reputation at all times.

### **6.3.2.6 Employee Experience**

Employee experience covers acknowledgement of experiences in different areas that have contributed to the organisational progress, appreciation of the wealth of experience, and the impact of having an experienced workforce in controlling risk exposures successfully. This also includes maintaining a policy that recruits the most qualified and experienced staff for appropriate job levels, regardless of their demographic or physical condition including acknowledgement of significant achievements through having staff with relevant experience.

### **6.3.2.7 Organisational Awards**

“Organisational Awards were acknowledged as a tool that boosts staff morale and productivity. “Organisational awards” covers the giving and receiving of awards. It covers the presence of companies’ leaders in award ceremonies both locally and outside Nigeria, the amount of money received from some organised award ceremonies, giving awards to some companies based on their recognition for innovation and excellence, corporate and social responsibility, and sustainability, and recognition of various departments for awards such departments include marketing team, legal team, among others. Awards to individuals for best-performing staff based on their job level, business unit performance and individual performance, recognition of various awardees within the companies. Companies long time plans for eligible staff who have rendered continued service to the organisation, and frequency of giving of awards.

### **6.3.2.8 Technology**

The report on intellectual capital in respect of technology includes companies’ readiness to continue to leverage technology for better customer engagement, and implementation of various technological initiatives. The delivering of values to various groups of people like their employees, customers, community, and partners leveraging on the use of technology to

increase productivity, increasing online presence to gain a large number of customers through continuous improvement in technology, restructuring of various programmes with technological inclination, investment in the latest technology for speedy service, utilisation of IT techniques for the analysis of claims.

#### **6.3.2.9 Innovation**

The importance of innovation was acknowledged by the insurance companies in their annual reports. The reports cover the availability of robust innovative channels to promote productivity, recognition of innovative impacts, and readiness for a relentless commitment to innovating opportunities. It also covered the acknowledgement of the pandemic period as it aided transformation through innovation in the insurance industry, maintaining the legacy of innovative contributions and solutions. It also included creating consistent exceptional value through innovations, winning the competitive market through innovations, and focusing on the future through innovation.

#### **6.3.2.10 Employee Expertise**

Expertise was also acknowledged as another significant asset. By the participating insurance companies. The recognition and disclosure of an intellectual capital item such as “employee expertise” cover engaging the services of people with expertise in different aspects as the need arises including a consistent commitment to the development of the directors to build expertise in the changing environment. Expertise such as the successful formulation of strategy for clients by leveraging on the individual expertise of the employees, having a good reputation as a result of the possession of time-tested expertise in insurance-related services, building customers’ confidence through a combination of expertise with other necessities such as

empathy and efficiency, placing priority on expertise, and ensuring the possession of sound expertise to accomplish work expectations by individual staff.

#### **6.3.2.11 Employee Capabilities**

The recognition of the intellectual capital component in respect of employee capabilities covers insurance companies' readiness for continuous commitment to invest in new capabilities for better customer engagement, provision of technical capabilities, strengthening management capabilities, controlling capabilities through leveraging on technology including promoting responsiveness in building capability, and reinforcement of technological capability.

#### **6.3.2.12 Employee Productivity**

The recognition of Intellectual Capital in respect of productivity includes companies raising productive communities and a better environment, acknowledging employees' productivity, a record of double-fold productivity, implementing of various programmes to enhance and improve employees' optimal productivity, building a productive workforce, monitoring staff productivity, sustaining employee productivity, involvement in restructuring exercises for increased productivity, and involvement in productive dialogue.

#### **6.3.2.13 Employee Qualification**

The annual reports capture the insurance companies' high recognition for professional qualifications, encourage the possession of requisite qualifications, and celebrate qualified employees.



#### **6.3.2.14 Organisational Benefit Plan**

The disclosed Intellectual Capital includes a defined benefit plan, pension plan, gratuity plan, end-of-service benefits plan, and a sponsoring plan, which are determined by age, years of service and compensation.

#### **6.3.2.15 Employee Motivation**

The contents of motivation shown as an Intellectual Capital item in the annual reports of the companies include acknowledgement of the importance of motivated employees to the success of the organisations, involvement in activities that motivate consumers, the design of programmes that motivate staff to provide quality tasks and achievement of companies' objectives, the policies that motivate employees' loyalty and attract the best talents, review of companies' remuneration to ensure staff are retained and display the names of some motivated employees.

#### **6.3.2.16 Management Philosophy**

The information disclosed in the annual reports in respect of management philosophy includes ensuring an effective process of governance, promotion of sound risk management philosophy, management of risk exposures, ensuring sustainable growth in shareholders' value, and ensuring adherence to regulatory requirements.

#### **6.3.2.17 Organisational Culture**

The information disclosed in the annual reports in respect of organisational culture includes employees' role through organisational culture, acceptable behaviour in the organisations, one of the factors that influence group consideration for risk, an associate of strategic goals,

appropriateness and adequacy of organisational culture in support of companies' strategies, and receiving feedbacks from customers to provide improved services.

#### **6.3.2.18 Employee Teamwork**

The following items capture the disclosure of Intellectual Capital in respect of employees' teamwork in the annual reports: acknowledgement of teamwork as companies core value, commitment to teamwork despite all odds, belief in focused teamwork, the vitality of the contribution of every member of staff, and encouragement of teamwork for organisational productivity,

#### **6.3.2.19 Research and Development**

This component of intellectual capital covers placing maximum emphasis on research and development for the development of new processes and products, encouraging research and development for new and existing products, acknowledgement of the development of new products through research and development, and maintenance of high standards in research and development.

#### **6.3.2.20 Organisation structure**

This component of Intellectual Capital captures efficient and effective decision-making and risk management and clear job descriptions of the employees.

#### **6.3.2.21 Networking**

"Networking" covers the insurance companies' placement of premiums on employee development of professional networking; sponsoring of employees, within and outside Nigeria,

to learn professional networking; and putting in place various strategies like the release of funds to achieve networking objectives.

### 6.3.2.22 Intellectual Property

The report captured the guidance in applying for requirements to certain common arrangements, like licenses of intellectual property.

## 6.4 Triangulation of Research Results and Findings

This section contains the triangulation features of this research. This demonstrates the intellectual capital indicators that have been identified by the research variables and outcomes. Tables 6.43 and 6.44 below show the triangulation outcome accordingly.

### 6.4.1 Analysis of the Data Triangulation Based on the Data Collection Technique

This is the data triangulation analysis based on data collection techniques adopted by the research types, primary and secondary. The field survey and content documentation financial statements and annual reports of the sampled listed insurance companies.

**Table 6.43 Data Triangulation Analysis Based on Data Collection Technique**

Intellectual Capital	Questionnaires	Interview	Content Analysis
VARE capital	<p>Customer complaints</p> <p>Investor' care</p> <p>Customer relationship</p> <p>(Table 6.2)</p>	<p>Stakeholders</p> <p>Contracts</p> <p>Partnerships</p> <p>Employer branding</p> <p>Brand awareness</p> <p>(Fig. 6.17)</p> <p>Customer loyalty</p> <p>Capital market</p> <p>Investors' Perception of IC</p>	<p>Customer care</p> <p>Customer training</p> <p>Management</p> <p>Reputation</p> <p>(Table 6.42)</p>

Intellectual Capital	Questionnaires	Interview	Content Analysis
		Relational capital (Table 6.32)	
VAHU capital	Human Resources Staff care Employee training Personal skills Talents Core competence  (Table 6.3)	Punctuality Education Health care On-the-job training Mental and emotional wellbeing People management Communication skills (Fig. 6.17) Employee training Training and development Employee experience Employee qualification Employee competence Human capital (Table 6.32)	Employee training Employee skills Employee experience Employee expertise Innovation Motivation Productivity Employee qualification Employee know-how (Table 6.43)
VAST capital	Brands Trademarks Patents Licenses Innovations (Table 6.24)	Principles Data Processes Media Documentation Procedures Methods Intellectual property Tools Automation (Fig. 6.17) Information system R & D Innovation Technology Intellectual property Communication Organisation Culture Annual report (Table 6.32)	Technology Culture Research & Development Intellectual property Structural capital (Table 6.43)
VABU (Strategic)	Managers' networking Staff collaboration	Policy Training	Management Philosophy

Intellectual Capital	Questionnaires	Interview	Content Analysis
capital	Helping other departments Information Sharing Intranet Cooperation  (Table 6.25)	Tools Structure Principles Mission and vision (Fig. 6.17) Regulation Organisation capital Organisation growth Teamwork Network Channel of communication Integration of IC indices Prudent financial management Components of IC (Table 6.32)	Teamwork Networking (Table 6.43)
Economic Value Added (EVA)	Productivity Communication to stakeholders (Table 6.6)		
Market Value Added (MVA)	Lack of standards No recognition criteria IC awareness growing (Table 6.7)		
Future Growth Added (FGV)	Brands Respondents acknowledge the need for IC Education for capital market actors (Table 6.8)		
Return on Equity (ROE)	Networking Investor care (Table 6.9)		
Return on Assets (ROA)	Prudent finance management Fixed asset growth (Table 6.10)		

Intellectual Capital	Questionnaires	Interview	Content Analysis
Return on capital employed (ROCE)	Skilful employees Financial prudence Profit maximisation Investors' care (Table 6.11)		

Researcher adapted, (2022)

### Key to Intellectual capital indicators

IC indicators are triangulated across the data collection techniques.	IC Indicators produced by interview data only supported by literature Table 2.9	IC indicators produced by questionnaire data only and supported by literature Table 2.9
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### Key to Intellectual capital indicators

IC indicators are produced by content analysis data only and confirmed by literature.	New IC indicators produced by data collection techniques not identified by the literature (local to Nigeria)
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Researcher adapted, (2022)

Table 6.43 sets out the questionnaires, interview and content analysis columns representing the results and findings. The value-added impact of the various intellectual capital categories is mapped against the data collection techniques. The Value Added Relational Capital (VARE), Value Added Human Capital (VAHU), Value Added Structural Capital (VAST) and the fourth capital, Business Recipe (Strategic) Capital (VABU). The yellow colour indicators are the point of data triangulation where intellectual capital indicators have been produced and identified by the respective value-added intellectual capital. 16 intellectual capital indicators were produced through the questionnaires, 14 through the interview and 11 from the annual reports. The triangulated output was produced with VAHU with sixteen intellectual capital indicators, followed by VABU with seven intellectual capital indicators, VAST has six. The triangulation confirms that there exists a good amount of intellectual capital attributes in the listed insurance companies which have not been recognised in the financial statements. Therefore, the researcher believes that the non-recognition of these intellectual capital

indicators in the financial statements of the listed insurance companies would have some effects on the valuation of the companies' shares on the stock exchange. There is certainly an information gap for the stakeholders as a result of the non-recognition of intellectual capital. According to Bukh (2002), the increase in information about Intellectual Capital contributes to the reduction of uncertainty, which is reflected in lower risk premiums and thereby a more accurate valuation of the company.

#### 6.4.2 Analysis of the Data Triangulation Based on Two Selected Listed Insurance Companies in Lagos

**Table 6.44 Data Triangulation Analysis Based on 2 Listed Insurance Companies in Lagos**

Intellectual capital	Listed Insurance company D Insurance Plc	Listed Insurance company M Insurance Plc	Reference
VARE Capital	Customer loyalty Investors' perception	Investors' perception	Figure 6.15
VAHU Capital	Employee know-how Employee training	Employee training Employee development Capitalisation Human capital	Figure 6.15
VAST Capital	Information system R & D Prudent financial management	Innovation and Technology Organisation growth Prudent financial management	Figure 6.15
VABU Capital	IC recognition and share valuation IC of value creation Profit making	Managers' view of IC measurement IC of value creation Profit making Non-recognition of IC	Figure 6.15

Researcher adapted, (2022)

#### Key to Intellectual Capital Indicators for Listed Insurance Companies D Plc and M plc

IC indicators triangulated across the data collection techniques	IC indicators from D Insurance Plc produced by interview data only identified by literature Table 2.9	IC indicators from M Insurance Plc produced by interview data only identified by literature.
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The triangulation of Intellectual Capital indicators of listed insurance companies between D Insurance Plc and M Insurance Plc (Table 6.44) showed some triangulated outcomes. The yellow colour indicates four items of intellectual capital reconciling from both listed Insurance companies. The blue colour Intellectual capital indicators from D Insurance Plc produced by interview agreed with the literature. Similarly, the red colour indicated by M Insurance Plc is also in the literature, consistent with Oliveira et al, (2006) in Table 2.10

## **6.5 Discussions of Research Outcome**

The discussion of results and findings of this research are indicated according to the research methods and instruments used based on the research variables.

### **6.5.1 Discussion on Research Results**

#### **6.5.1.1 Independent variables**

Considering Table 6.2, the first item, "Our insurance company tries to offer customers the best service in the industry" has a mean score of 4.16 denoting that a majority of the respondents agreed that their insurance company tries to offer customers the best service in the industry. Furthermore, all the mean scores of the item abovementioned range between 3.65 to 4.23 depicting that the majority of the respondents agreed to a very large extent to items of the questionnaire. This means that Value Added Relational Capital (VARE) is very relevant to the business of insurance companies.

In Table 6.3, the range (3.67-3.99) of the mean scores of all the items depicts that a high percentage of the respondents agreed with the questionnaire to a large extent about the importance of Value Added Human Capital (VAHU). To further establish this, the item which ranked first is "Human capital as a key performance indicator will motivate the managers and



enhance profitability” followed by the item which states that 'Core competencies are highly valued by management in my organisation because they enhance the company's value'. Therefore, it can be deduced that all the Value of Human Capital such as employees' qualities in an insurance company cannot be taken for granted.

Table 6.4 shows the descriptive statistics of the value of structural capital on the insurance company. This was further established by the research instrument because the mean range (3.61-3.95) of all the items in Table 6.4 agrees to a large extent on all the items raised in the group with the first rank being “Company trademarks and patents are highly valued and updated to our client's satisfaction” while the second-ranked item emphasised the role of innovation “Our innovations include constant review and renewal of products' life-cycle which increases our value chain”. It is, therefore, evident that Value Added Structural Capital (VAST) is an important ingredient in the contribution to enhancing company value.

The ranking system in Table 6.5 Value Added Business Recipe (Strategic) Capital (VABU) has shown clearly that a high percentage of the participants agreed to a large extent that “Managers feel obliged to help their colleagues in work-related matters” ranked first (4.04) which is a necessary ingredient in the Business Recipe (Strategic) Capital essential for adding value to the insurance company. The second-ranked (3.96), “the system allows information sharing and cooperation across different parts of the company”, clearly reveals that oneness is essential for the progress of the insurance company.

Furthermore, all the mean scores of the item above range between 3.61 to 4.04 depicting that the majority of the respondents agreed to a very large extent with the items of the questionnaire. From an empirical point of view, the summary outcome is consistent with Adam (2017, p.5)

“It is helpful to include this category because it explains the purpose of the rest of the capitals and the gravitational pull that keeps all the pieces together”

#### **6.5.1.2 Dependent variables**

The ranking system in Table 6.6 has shown clearly that a higher percentage of the participants agreed to a large extent that financial statements with Intellectual Capital information are viewed as a communicating device used by companies to communicate their information to various stakeholders especially investors (3.46). This financial statement remains the necessary instrument that gives the stakeholders and shareholders an overview of the impact of Intellectual Capital on insurance companies' Economic Value.

Furthermore, all the mean scores of the item above range between 3.46 to 3.89 depicting that a majority of the respondents agreed to a very large extent on the items of the questionnaire. This is consistent with Bukh, (2002, p.50). in practice, Intellectual Capital statements contain various financial and non-financial information, i.e., staff turnover and job satisfaction, in-service training, turnover split on customers, customer satisfaction, the precision of supply etc. “In this new economy, intellectual capital is considered as the preeminent resource for generating economic wealth and growth” Forte et al. (2017, p.711).

Table 6.7 indicates the Market Value Added (MVA) response ranked 1st is “Lack of accounting standard leads to a reduction in value relevance of information in financial statements”. This is followed in 2<sup>nd</sup> position by “Awareness of the importance and relevance of disclosing and recognition of intellectual capital information is growing as it increases a company's profitability” with a 3.80 mean score. “Accounting practices and standards do not specify the recognition criteria of intellectual capital, its measurement and disclosure, rendering it difficult to communicate useful intellectual capital information to users and investors” is 3rd on the rank

with a 3.65 mean score. “Financial markets are more accurate in their valuation of companies and any excess valuation of a company over its book value will be the correct valuation of the company's intellectual assets” took the 4th position on the rank. The market value of a company would be less relevant without a backing accounting standard on which to base its justification of inclusion in the financial statements.

On Future Growth Value (FGV), Table 6.8 points out that the “Value of brands is more visible to current investors and potential investors” is ranked 1st with a 3.93 mean score, “Intellectual Capital is a significant factor that assists companies to create value and sustain future strategic competitive advantage” followed at 2nd highest with 3.88 mean scores. The 3rd (3.87) on the ranking is “Your company's recognition plan and strategy are formed by the perception of how capital market participants understand value relevant information” while “Lack of Intellectual Capital recognition makes a company to runs the risk of the being subject to hostile takeovers” at 3.62 mean scores occupied the lowest and 4th position on the ranking.

Furthermore, all the mean scores of the items above range between 3.62 to 3.93 depicting that a majority of the respondents agreed to a very large extent with the items of the questionnaire. From the above analysis, the researcher opines that EVA, MVA and FGV are the three value-added indicators that very closely contribute to intellectual capital outcomes. This is consistent with Molodchik et al., (2012) in their study into Intellectual Capital transformation evaluation.

Table 6.9 above shows that on Return on Equity, “Networking by the managers has greatly impacted on our profitability” tops the rank with a mean score of 3.74, 2<sup>nd</sup> placed is “Where the Returns on Investment (ROI) from managers are not adequate, investors may likely divest” with a mean score of 3.69. The response, “as a measure of managers' financial management in

a company, Return on Equity adequately indicates the rewards arising from such investments” is next at 3rd highest ranking with 3.64, “Insufficient investment may not necessarily result into insufficient returns where strategic investment plans are employed by the management” followed with 3.58 mean score and the 5<sup>th</sup> and last on the ranking chart is “Equity capital must be combined with borrowed capital by the managers to maximise returns” with 3.54 mean score. The relevance of Return on Equity (ROE) contributes to the value of Intellectual Capital. This is consistent with Chen et al., (2005) as quoted by Kehelwalatenna and Premaratne (2013, p.4) who stated that ROE is generally an important financial indicator for investors. However, establishing additional relationships by introducing performance indicators that more specifically assist investors would address the issue of lack of evidence on the value relevance of Intellectual Capital to investors

Table 6.10 indicates that Return on Assets (ROA) has “Prudent financial management by managers bring about high financial performance” as ranked highest with 3.78. This is followed by “Company’s financial growth may not necessarily be reflected in the fixed asset growth” with 3.62 as the mean score. “Management need not bother about returns as long as adequate tangible assets have been invested in the company” is third with 3.31.

Furthermore, all the mean scores of the items above range between 3.31 to 3.78 depicting that a majority of the respondents agreed to a very large extent with the items of the questionnaire. On Return on Capital Employed (ROCE), “the value of a company’s investment is increased by the skilful use of resources by the management” topped Table 6.11 and ranked 1<sup>st</sup> with a mean of 3.94. Then “High return on capital employed is evidence of the financial prudence of managers in my organisation” was next with 3.93, and “Investors’ capital contributions to the business must be adequately employed by the management for profit maximisation” occupied

the 3rd position with 3.89. The bottom of the table was occupied by “Investment in Intellectual Capital in my company is significantly influenced by its profitability” ranked 5th with a 3.78 mean score and lastly “the proportion of a management’s input has no direct bearing on the capital employed in the organisation” with 3.60 mean scores.

### **6.5.2 Correlation Coefficient and Regression Analysis**

The Independent Sample T Test results on the phenomena of Intellectual Capital Reporting in insurance company financial statements are summarised in Table 6.12 above. The table demonstrated that components with mean values higher than 1.50 ( $x > 1.50$ ) indicated the element of the report's average positive presence in the financial statement. This suggests that every component of the human resource element including turnover and marketing costs, customers, education costs, and technology-were present in the financial statements and was relevant at the 0.00 level of importance. However, only administrative costs associated with processes were reported, whereas its other components, such as cost per process and investment in infrastructure, had mean values smaller than 1.50 ( $x < 1.50$ ) and were significant at 0.05 level of significance.

Table 6.13 above displays the usual descriptive statistics for all five variables one dependent and four independent. The inference confirms that a 51% change increase or decrease in the insurance company's profit is caused by one unit change in intellectual capital. This shows the importance of the impact of Intellectual Capital. Value Added Relational Capital and Value Added Business Recipe (Strategic) Capital has 71.8% and 45.7% part of Intellectual Capital respectively. This supports the outcome of Hypothesis Two.

Table 6.14 above represents a correlation matrix. The first column shows the correlations of the independent variables (Intellectual Capital) with the dependent variable (company profitability) and it shows that VARE Capital, VAHU Capital, VAST Capital and VABU Capital are all significantly correlated with Company Profitability because the significant level is 0.000 ( $0.000 < 0.05$ ) at 5% confidence level. It can as well be noted that some of the independent variables are also strongly related to each other as in the case of VARE Capital and VAHU Capital (0.652), VAST Capital and VARE Capital (0.656), VABU Capital and VARE Capital (0.658).

The Model Summary Table 6.15 indicates the result of the correlation coefficient (R) which is 0.722, using all the independent variables at once,  $R^2 = 0.522$  and the adjusted  $R^2$  is 0.508. This implies that 51% of the change in company profitability is explained by VARE Capital, VAHU Capital, VAST Capital and VABU Capital altogether i.e. 51% change in company profitability is caused by a unit change in Intellectual Capital which consists of VARE, VAHU, VAST and VABU capitals.

The adjusted  $R^2$  is lower than the unadjusted  $R^2$ . This is, in part, related to the number of variables in the equation. The adjustment is also affected by the magnitude of the effect and the sample size.

The ANOVA Table 6.16 shows that with the degree (df = 4 and 136, Sum of squares = 4637.274 and 4249.336 and Mean square = 1159.319 and 31.245) the  $F = 37.104$  and is significant. This means that the combination of the independent variables significantly predicts company profitability

The Coefficients Table 6.17 indicates the standardised beta coefficients, which are interpreted similarly to correlation coefficients or factor weights. The t value and the Sig. value of each independent variable indicates whether that variable significantly contributes to the equation in predicting company profitability from the whole set of predictors (independent variables) or not. Therefore, VAST Capital and VABU (Strategic) Capital are the only variables that significantly add something to the prediction (dependent variable) when the variables are considered. All the independent variables are considered together when computing the values. Therefore, if one of the insignificant independent variables is deleted, it can affect the significant levels of the other independent variables. This means that all four intellectual capital categories have a bearing together to influence the company's value-adding.

However, as the tolerances in the Coefficients Table 6.18 suggest, although the VARE Capital and VAHU capital were significantly correlated with company profitability, they did not contribute to the multiple regression predicting company profitability. This may be a result of the fact that the two variables were highly correlated with each other, therefore multiple regression eliminates all overlap between independent variables. Thus, both VARE Capital and VAHU Capital had less contribution when the others were also used as predictors. Also, tolerance for each of these independent variables is  $< 0.48$  ( $1-0.52$ ), indicating that too much multicollinearity (overlap between predictors) exists. There may be a need to combine the variables that are highly related to solving the multicollinearity problem if it is conceptually acceptable.

To give clarity and understanding to the terminologies, Eigen values represent the total amount of variance that can be explained by a given principal component such as Intellectual Capital. When Eigenvalues are greater than 0, it is termed good. When it is close to zero, it means there

is multicollinearity. Therefore, the sum of the Eigenvalue is equal to the number of independent variables (VARE, VAHU, VAST, VABU) representing intellectual capital as a main component.

Also, note that besides the Eigenvalue column is the condition index column. The condition index (CI) is a function of the Eigenvalue. Condition index less than 15 means there is weak multicollinearity, condition index greater than 15 but less than 30 shows moderate multicollinearity. Condition index greater than 30 shows strong multicollinearity. It is also important to mention that multicollinearity occurs when several variables are significantly correlated not only with the dependent variables but also with each other.

Table 6.19 above shows a matrix of the correlation coefficients for five variables. The table gives an analysis of the correlation coefficient, the significance value of the correlation and the sample size (N). Each variable is perfectly correlated with itself,  $r = 1$  along the diagonal of the table. Company's Relational Capital is negatively related to the company's age with a Pearson Correlation coefficient of  $r = -0.121$ , this indicates a very weak relationship with a significance value (0.433) greater than 0.05. i.e., the relationship between the company's VARE capital and the company's age is not statistically significant. The output also shows that the company's human capital is negatively related to the company's age with a coefficient of  $r = -0.107$ , which is also not significant (0.488). Likewise, VAST and VABU (Strategic) capital are also negatively related to the company's age with a Pearson correlation coefficient of  $r = -0.041$  and  $-0.164$  which are also not significant with 0.793 and 0.287 p- values respectively. Within the sphere of Intellectual Capital studies, Goebel (2015, p.712) “finds a negative but insignificant relationship between Intellectual Capital value and firm age”. This is consistent with Hypothesis Three similarly, to Forte et al. (2017, p.715). This is not consistent with Mondal and Ghosh, (2013, p.5) in a study of Indian Evidence of capital valuation.



The inclusion of a variable for insurance company age, or length of establishment, recognises the fact that companies develop Intellectual Capital value over time in a cumulative manner as the company grows in age. According to Forte et al., (2017, p.715), “On balance, and drawing largely upon theory arguments rather than existing evidence, a negative relationship is expected between intellectual capital and firm age”, though this is at a one per cent significance level. “Intellectual Capital (IC) value of a company is linked to its leverage status” is rejected. This is because the significant value of the company's Intellectual Capital is above 0.05 significant level. Although Intellectual Capital and leverage status are positively related, the relationship is insignificant. This is not consistent with expectations as in Goebel (2015), Forte et al. (2017, p.723, and Asare et al. (2017, p.9). However, this is consistent with Mondal and Ghosh (2013, p.5) in a study of Indian Evidence of capital valuation.

Table 6.21 above shows a matrix of the correlation coefficients for five variables. The table gives an analysis of the correlation coefficient, the significance value of the correlation and the sample size (N). Each variable is perfectly correlated with itself,  $r = 1$  along the diagonal of the table. The company's Value Added Relational Capital is positively linked to the company's leverage status with a Pearson correlation coefficient of  $r = 0.092$ , this coefficient indicates a very weak relationship and the significance value (0.368) is greater than 0.05. i.e., the relationship between the company's Value Added Relational Capital and leverage status is not statistically significant (insignificant). The output also shows that the company's Value Added Human Capital is positively related to the company's leverage with a coefficient of  $r = 0.080$ , but not significant (0.384). Likewise, VAST and VABU Capitals are also positively related to the company's leverage with a Pearson correlation coefficient of  $r = 0.186$  and  $0.148$  which are also not significant at p-values of 0.245 and 0.292 respectively.

Intellectual Capital recognition is perceived as relevant from a capital market valuation perspective. This is accepted. The inference showed that every 39.3% change in capital market valuation perspectives is caused by a unit change in Intellectual Capital which consists of VARE, VAHU, VAST and VABU capital.

Table 6.23 above represents a correlation matrix. The first column shows the correlations of the independent variables (Intellectual Capital) with the dependent variable (capital market valuation) and it shows that Relational Capital, Human Capital, Structural Capital and Business Recipe Capital are all significantly correlated with capital market valuation because the significant level is ( $0.000 < 0.05$ ). It can as well be noted that some of the independent variables are also strongly related to each other as in the case of Relational Capital and Human Capital (0.652), Structural Capital and Relational Capital (0.656), Business Recipe and Relational Capital (0.658).

The Model Summary Table 6.24 indicates the result of the correlation coefficient (R) is 0.641, using all the independent variables at once, ( $R^2 = 0.410$ ) and the adjusted  $R^2$  is 0.393. This implies that 39.3% of the changes in capital market valuation perspectives are explained by Relational Capital, Human Capital, Structural Capital and Business Recipe Capital altogether. That is, a 39.3% change in capital market valuation is caused by a unit change in intellectual capital consisting of VARE, VAHU, VAST and VABU Capital.

Note that the adjusted  $R^2$  is lower than the unadjusted  $R^2$ . This is, in part, related to the number of variables in the equation. The adjustment is also affected by the magnitude of the effect and the sample size. The relevance of Durbin Watson is the t-test for independent error in the

difference between the residual of the present model and the residual of predicting model. There is a range of values to examine the test, which is between 0 and 4. If it is 2.0, it shows that there is no independent error detected in the sample. If it is between 0 and 2, it shows a positive independent error. If it is between 2 and 4, then it shows a negative independent error. For this research's results, the Durbin-Watson value is 2.141, which is approximately 2, therefore it is stated that there is no independent error in the sample. Another interpretation is that Durbin Watson indicates if there is autocorrelation detected in the sample.

The ANOVA Table 6.25 shows that with the degree (df = 4 and 136, Sum of squares = 1428.867 and 2066.750 and Mean square = 359.717 and 15.197) the  $F = 23.671$  and is significant (sig-value is less than 0.05). This means that the combination of the independent variables significantly predicts capital market valuation

The Coefficients Table 6.26 indicates the standardised beta coefficients, which are interpreted similarly to correlation coefficients or factor weights. The t value and the Sig value of each independent variable indicate whether that variable significantly contributes to the equation in predicting capital market valuation perspectives from the whole set of predictors (independent variables) or not. Therefore, Human Capital (0.015) and Business Recipe Capital (0.008) are the only variables that significantly add something to the prediction (dependent variable) when the variables are considered. This is because of their sig. values are less than 0.05 significant level. All the independent variables are considered together when computing the values. Therefore, if one of the insignificant independent variables (VARE capital and VAST capital) is deleted, it can affect the significant levels of other independent variables.

VIF (Variance Inflation Factor) evaluates the strength of correlation among the independent variables in regression analysis, which can also be termed multicollinearity. A VIF that is

below 3 will not cause a problem to the regression model. A VIF of 3 or below is not an issue but the higher the VIF, the less reliable our regression results. For this research, all VIFs are not up to 3, so we can say there is no cause for concern. VIF equal to 1 means the variables are not correlated. VIF between 1 and 5, means variables are moderately correlated. VIF greater than 5 means, the variables are highly correlated.

However, as the tolerances in the Coefficients table suggest, the Relational Capital and Structural Capital were significantly correlated with capital market valuation perspectives, although they did not contribute to the multiple regression predicting capital market valuation perspectives. This may be a result of the fact that the two variables were highly correlated with each other, therefore multiple regression eliminates all overlap between independent variables. Thus, both Relational Capital and Structural Capital had less contribution when the others were also used as predictors. Also, tolerance for each of these independent variables is  $< 0.59$  (1-0.41), indicating that too much multicollinearity (overlap between predictors) exists. There may be a need to combine the variables that are highly related to solving the multicollinearity problem if it is conceptually acceptable.

First, the output provides the usual descriptive statistics for all five variables one dependent and four independent. Note that N, which represents the total number of participants (respondents) is 141 because there are no missing scores on any variables. Multiple regression uses only the participants who have complete data for all the variables. The results indicate that for every 1% change in intellectual capital components, there is a 48.2% influence or change in the value of capital market valuation of listed insurance companies' share value.

Intellectual capital indices influence the economic value of listed insurance companies as validated by hypothesis testing. This is consistent with Asare et al. (2017, p.11) in a study of Intellectual capital profitability in an emerging insurance market in Ghana. Table 6.29 above represents a correlation matrix. The first column shows the correlations of the independent variables (Intellectual Capital) with the dependent variable (economic value) and it shows that value-added Relational Capital, Human Capital, Structural Capital and Business Recipe Capital are all significantly correlated with Company Profitability because the significant level is  $0.000 < 0.05$ . It can as well be noted that some of the independent variables are also strongly related to each other as in the case of Relational Capital and Human Capital (0.652), Structural Capital and Relational Capital (0.656), Business Recipe and Relational Capital (0.658). This is consistent with Uadiale and Uwuigbe (2011, p.52) in a study of Intellectual Capital and Business Performance: Evidence from Nigeria without the Business Recipe (Strategic) Capital. This is partially consistent with Anuonye (2016, p.48) in a study of the Effect of Intellectual Capital on the Return on Assets of Insurance firms in Nigeria without the Value Added business (Strategic) Capital. This further validates one of the gaps in this research.

The Model Summary Table 6.30 indicates the result of the correlation coefficient (R) is 0.705, using all the independent variables at once, ( $R^2 = 0.497$ ) and the adjusted  $R^2$  is 0.482. This implies that 48% of the changes in economic value are explained by Relational Capital, Human Capital, Structural Capital and Business Recipe Capital altogether. That is, a 48% change in economic value is caused by a unit change in intellectual capital consisting of Relational, Human, Structural and Business Recipe capital. This is consistent with Mondal and Ghosh, (2013, p.7)

Note that the adjusted  $R^2$  is lower than the unadjusted  $R^2$ . This is, in part, related to the number of variables in the equation. The adjustment is also affected by the magnitude of the effect and the sample size.

The ANOVA table 6.31 shows that with the degree (df = 4 and 136, Sum of squares = 735.700 and 745.591 and Mean square = 183.925 and 5.482) the  $F = 33.549$  and is significant. This means that the combination of the independent variables significantly predicts economic value. The Coefficients Table 6.32 indicates the standardised beta coefficients, which are interpreted similarly to correlation coefficients. The  $t$  value and the Sig value of each independent variable indicate whether that variable significantly contributes to the equation in predicting economic value from the whole set of predictors (independent variables) or not. Therefore, Structural Capital (0.003) and Business Recipe (Strategic Capital) (0.000) are the only variables that significantly add something to the prediction (dependent variable) when the variables are considered. This is because of their sig. values are above 0.05 significant level. It is an addition because the beta value is positive. All the independent variables are considered together when computing the values. Therefore, if one of the insignificant independent variables (Relational Capital and Human Capital) is deleted, it can affect the significant levels of other independent variables.

VIF (Variance Inflation Factor) evaluates the strength of correlation among the independent variables in regression analysis, which can also be termed multicollinearity. A VIF that is below 3 will not cause a problem to the regression model.

However, as the tolerances in the Coefficients table suggest, the Relational Capital and Human Capital were significantly correlated with capital market valuation perspectives, although they did not contribute to the multiple regression predicting economic value. This may be a result of the fact that the two variables were highly correlated with each other, therefore multiple

regression eliminates all overlap between independent variables. Thus, both Relational Capital and human capital had less contribution when the other was also used as predictors. Also, tolerance for each of these independent variables is  $< 0.51$  ( $1-0.49$ ), indicating that too much multicollinearity (overlap between predictors) exists. There may be a need to combine the variables that are highly related to solving the multicollinearity problem if it is conceptually acceptable.

## **6.6 Discussion on Research Findings**

Interviews were used to obtain qualitative data for this research and the findings of those interviews were analysed by separating the responses into overarching themes and more specific subthemes. The use of qualitative methods guarantees that the responses of the respondents are given in context to the respondents' own experiences with the topic being researched. According to Cohen, Manion, and Morrison (2018, p.471), various approaches can be taken when analysing qualitative data. For example, analytical induction allows the researcher to analyse data to establish categories of the phenomenon being investigated. Likewise, Saunders et al. (2012, p128-171) enumerated the many kinds of qualitative data analysis. NVivo analytical software was utilised in this research to generate themes and subthemes and to provide an answer to the research question.

The data from the interview was used to generate new nodes, and the criteria that were used ranged from identity to other information. Finally, the researcher explained the topic by developing explanations in the form of models, tables, graphs, and info graphs based on the findings.

To corroborate the findings from NVivo, a Word Cloud of the interview sessions was produced. This is an image composed of words used in a particular text or subject, in which the size of each word indicates its frequency or importance in a phenomenon. It is a visual representation of information or data. It shows the popularity of words or phrases by making the most frequently used words appear larger or bolder compared with the other words around them. Word Cloud was used to re-emphasise and support the outcome of the NVivo results.

Figure 6.8 above shows the Word Cloud of the interview sessions of the respondents. In word cloud view, the bigger and bolder the words the more frequently it is mentioned and the more relevant it is to the subject. It can be observed that the word phrase “Intellectual Capital” is the biggest and boldest among the cluster of words, followed by words such as “insurance company” “organisation” “financial management” “value” and “listed”. This implies that the respondents spoke to the subject of the interview, namely Intellectual Capital recognition in financial statements of listed insurance companies in Lagos and Abuja.

### **6.6.1 Thematic Analysis of the interview**

Table 6.33 above shows Intellectual Capital (IC) components that the interviewees (respondents) attested to have been captured in the annual reports of their insurance companies. The sources are the number of insurance companies and references are the number of times an intellectual capital attribute was mentioned. Most of the respondents (10) attested that “employee training and education” is the most common intellectual capital element, mentioned 18 times as the component that is captured on the annual report of their insurance companies in Nigeria. This is followed by “information system” mentioned 11 times by 9 insurance companies, “research and development” mentioned 8 times by 5 respondents and “innovation and technology”. On the other hand, the least captured Intellectual Capital components on the



financial statements and annual reports are “employee experience”, “qualification”, “competence” and “channel of communication ”. Below are the responses from individual insurance company respondents.

Table 6.33 above shows the identified Intellectual Capital themes from the interview analysis. 17 attributes of Intellectual Capital were identified with “employee training and education”, “information system”, “research and development” and “innovation and technology” being the most talked about Intellectual Capital themes across the 20 interview sessions. Conversely, “employee’s qualifications” “competence” and “channel of communication” were least discussed.

According to Table 6.33 above, most interviewees (10 sources) confirmed that “employees’ training and education” is the most recognised Intellectual Capital component in the annual financial statements of insurance companies in Nigeria above others.

The extent to which non-recognition of Intellectual Capital can affect the value of listed insurance companies in Nigeria was discussed by the interviewees. The respondents opined that non-recognition of Intellectual Capital by the insurance company will negatively impair the standard of the company, reduce the interest shown by the investors and the overall performance of the company. Below are statements made by some of the respondents from the listed insurance companies.

*“When Intellectual Capital is ignored in an insurance company, it declines the company’s standard. When the standard is compromised, it declines the interest of investors. This is because investors will look for the best standard and high Intellectual competence and financial competence; competence in general of a company. When that aspect is lacking, the rating of that company will be below, both for the stock exchange and rating on the insurance company” (Respondent K).*

*“As mentioned earlier, the role of human and relational capital cannot be overemphasised in a company, and when it is not recognised, it affects most of our production. So, the value of Intellectual Capital has a positive and negative impact on the value of the organisation” (Respondent M).*

In addition to the above, there are other themes related to the subject of the research that validated some of the findings from the thematic analysis above. Table 6.34 refers to the interview outcome. It shows how the respondents mentioned and spoke about the subject matter. 15 insurance companies mentioned the words “Intellectual Capital” 27 times between them during all of the interview sessions at various times. “Intellectual Capital recognition” and “value of shares” was mentioned by 12 insurance companies 17 times. This indicates the relevance of Intellectual Capital recognition and value impact on shares of the insurance companies. This is consistent with various other intellectual capital studies (Marr, 2008; Chen, 2021; Quintero-Quintero, 2021)

Figure 6.10 above shows the “Intellectual Capital” theme as an item in the coding. Emphasis on intellectual capital and its conceptualisation were dominantly made by interviewees in insurance companies S, T, J, I and P. Insurance companies H, L B provided fewer references to intellectual capital components as displayed.

Emphasis on “training and education” (figure 6.11) and its conceptualisation were dominantly made by insurance companies G, M, T, A and F while interviewee P spoke least of it. Insurance company G however, spends more than 50% of the total aggregation discussing employee training and education. This implies that insurance company G considers Intellectual Capital “employee training and education” to be very important. The respondents from different listed insurance companies all spoke about the employees’ relevance in their companies.

Regarding Intellectual Capital (IC) recognition and value of shares, this was done by coding the items. Based on Figure 6.12 above, it is evident from this research that more than 50% of the total number of respondents expressed interest in Intellectual Capital recognition and how it affects the value of shares within the company. This supports the argument made by Sherif and Elsayed (2015, p.19) that measuring the full value of corporations should be a priority for firm leaders, investors, and other stakeholders, especially in the service-oriented industry of insurance. The market value of shares of insurance companies is enhanced by the investment in Intellectual capital. This is consistent with Kotanko et al. (2019) and Watson and McKenzie (2022).

As regards Intellectual Capital and profit making, respondents agreed that value is created by the companies and increased profitability by Intellectual Capital attributes from Figure 6.13 above. Insurance companies J, M, K, L, C, D, and F attested to this. This is consistent with studies conducted by Salehi (2021) and Olarewaju (2021).

Another issue that gained the attention of respondents was “investors' perception” of Intellectual capital information. The importance of investors' perception cannot be over-emphasised given the findings indicated by the bar chart in Figure 6.14 above. Insurance companies M, B, A, N, G and C indicated more than half of the outcome as against Companies S, L, D, and H which indicated lower outcomes. This is supported by studies of Evans (2015); Lentjushenkova (2017).

Figure 6.15 above compares the interview response between interviewees in insurance companies D and M. The middle themes are the common themes on intellectual capital between interviewees in insurance companies D Plc and M Plc while the left and right themes

are the difference between them. Listed insurance companies' respondents from D Insurance Plc and M Insurance Plc shared some common thoughts on employee training and education, investors' perception of Intellectual Capital information, prudent financial management, intellectual capital, and Intellectual Capital for value creation and profit making. However, they differently expressed concerns about innovation and technology, research and development, regulations, etc. This shows the organisational stand on some Intellectual Capital factors and the difference in what an insurance firm lay more emphasis on as Intellectual Capital than the other. D Plc and M Plc are among the top three insurance companies with the highest share values in Nigeria.

Figure 6.17 above shows the NVivo classification model for Intellectual Capital Themes as identified in the transcribed interview. Respondents categorised Intellectual Capital into human capital, structural capital, relational capital and organisational capital.

**The human capital** components of Intellectual Capital was said to be punctuality, education, health, communication skill, people management, problem-solving, mental and emotional well-being and technical and on-the-job training.

**Organisational Capital** components were said to include policy, training, tools, structure, principles, stories, mission, and vision.

**Relational Capital** components are stakeholders, contacts, partnerships, employee branding, customer relationship and brand/awareness.

**The structural Capital** component is principles, data, processes, documentation, procedures, method, intellectual properties, tools and automation.

Table 6.36 shows the outcome of the valuation of Shares of Selected Insurance companies. The names of the listed insurance companies have been anonymised in line with the confidentiality

assurances given to the insurance companies by the researcher before their acceptance to participate in the field survey for questionnaires and the interview processes. The content analysis does not contain the actual names of the insurance companies as they were retrieved from the websites of NAICOM and the stock exchange. Insurance companies D, B and M have the value of their shares among the highest in Nigeria with 5.75, 4.32 and 2.35, ranking first, second and third respectively. On the other hand, insurance companies L, P and C with lower share values of 0.46, 0.21 and 0.20 ranked least among the sixteen companies.

Table 6.43 sets out the questionnaires, interview and content analysis columns representing the results and findings. The Value Added impact of the various intellectual capital categories is mapped against the data collection techniques. The Value Added Relational Capital (VARE), Value Added Human Capital (VAHU), Value Added Structural Capital (VAST) and the fourth capital is Business Recipe (Strategic) Capital. The yellow colour indicators are the point of data triangulation where Intellectual Capital indicators have been produced and identified by the respective Value Added Intellectual Capital. Sixteen Intellectual Capital indicators were produced through the questionnaires, fourteen through the interview and eleven from the annual reports. The triangulated output was produced with VAHU indicator sixteen Intellectual Capital indicators, followed by VABU with seven Intellectual Capital indicators, VAST has six. The triangulation confirms that there exists a good amount of Intellectual Capital attributes in the listed insurance companies which have not been recognised in the financial statements. Therefore, the researcher believes that the non-recognition of these Intellectual Capital indicators in the financial statements of the listed insurance companies would have some effects on the valuation of the companies' shares on the stock exchange. There is certainly an information gap for the stakeholders as a result of the non-recognition of Intellectual Capital. According to Bukh, (2002), the increase of information about Intellectual Capital contributes

to the reduction of uncertainty, which is reflected in lower risk premiums and thereby, a more accurate valuation of the company. The triangulation of Intellectual Capital indicators of listed insurance companies between D Insurance Plc and M Insurance Plc (Figure 6.44) showed some triangulated outcomes. The yellow colour indicates four items of Intellectual Capital reconciling from both Listed Insurance companies. The blue colour Intellectual capital indicators from D Insurance Plc produced by interview agreed with the literature. Similarly, the red colour indicated by M Insurance Plc is also in the literature, both consistent with Oliveira et al (2006) in Table 2.10.

## 6.7 Revisiting the Conceptual Framework

The conceptual framework in Figure 6-20 below identifies key variables and indicators influencing Intellectual Capital recognition and the valuation in the listed insurance companies in Abuja and Lagos. It also identifies the main actors involved and their key activities, which would allow researchers to arrange the relevance of the recognition process and the impact of Intellectual capital indicators to ascertain what adds value and enhance the valuation of listed insurance companies' shares.

<b>Dimension</b>	<b>Conceptual Structure (Proposed Framework)</b>	<b>Empirical Structure (Framework after the empirical studies)</b>	<b>Outcome (validation) Any variation? (Yes/No) (Accepted/Rejected/)</b>
Intellectual Capital	Relational Capital Value	Relational Capital	No
	Human Capital Value	Human Capital	No
	Structural Capital Value	Structural Capital	No
	Business Recipe Capital Value	Business Recipe Capital Value	Yes
Intellectual Capital Indicators	Financial Statement	No change	Accepted (Table 6.12)
	Profitability	No change	Accepted (Table 6.13)

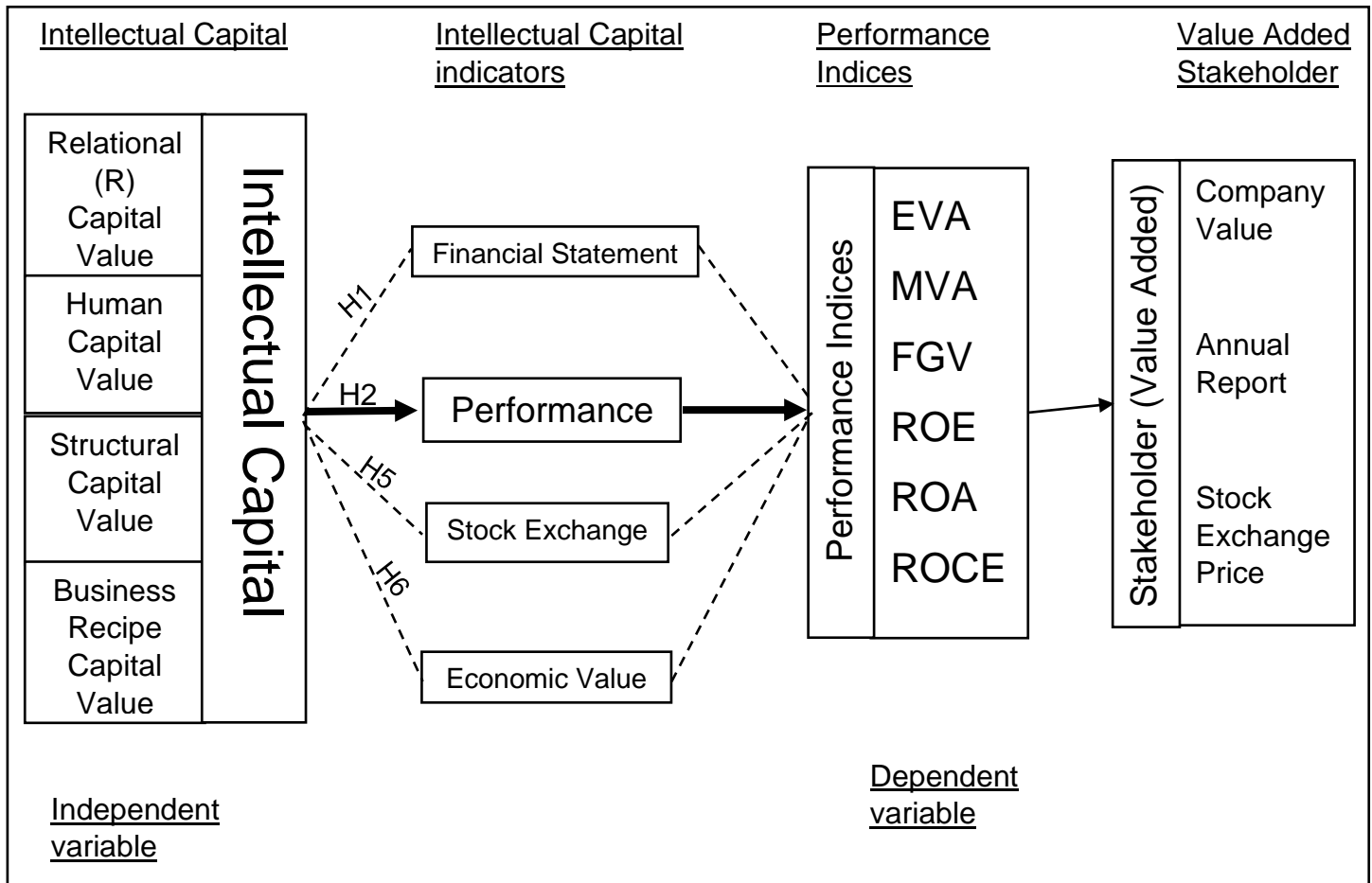
	Company Age	No change	Rejected (Table 6.19)
	Leverage DER	No change	Rejected (Table 6.20)
	Capital market value	No change	Accepted (Table 6.23)
	Economic value	No change	Accepted (Table 6.30)
Performance Indices	EVA	EVA	No
	MVA	MVA	No
	FGV	FGV	No
	ROE	ROE	No
	ROA	ROA	No
	ROCE	ROCE	No
Stakeholders	Company Value	No records	Yes
	Annual Report	Not indicated	Yes
	Stock Exchange Price	Recorded	Yes

(Researcher's adapted, 2023)

#### **Table 6.45 Revised conceptual model validation**

The conceptual framework in Figure 6-20 below recognises significant changes resulting from the hypothesis testing. It also identifies the variables affected as a result of this testing process, which would allow researchers, practitioners, accountants and insurance companies to consider the recognition of Intellectual Capital in their financial reporting.

## Revised Conceptual Framework



**Figure 6.19 Revised Conceptual Framework**

(Researcher's adapted, 2023)



Intellectual Capital as an independent variable consisted of four categories which were tested in the model using the Intellectual Capital indicators to ascertain their relationship with the dependent variables. The results were that four hypotheses were accepted and two rejected. Hypotheses Three (H3) and Four (H4) relating to the Age and Leverage status of the listed insurance companies respectively were not accepted. This means that the age of a listed insurance company (Table 6.19) does not influence the value of a listed insurance company regardless of the year of establishment. Age also does not affect each of the categories of Intellectual Capital. Age has therefore been eliminated as a control variable in the revised conceptual framework as shown in Figure 6.19 above.

Hypothesis Four (H4) relating to the leverage status of listed insurance companies and the relationship with Intellectual Capital (Table 6.21) is also rejected. Leverage status is rejected despite the leverage status being positively related to each of the categories (VARE, VAHU, VAST, VABU) of Intellectual Capital. Leverage status is excluded from the revised conceptual model of the research.

From the revised conceptual framework above, it is indicated that the Intellectual Capital recognition in financial statements of listed insurance companies (H1) is valid and should be considered as an attribute of Intellectual Capital and should be considered in the preparation of financial statements.

Hypothesis Two confirmed that Intellectual Capital is positively connected with listed insurance companies as it is proved that 51% of the change in the profitability of the listed insurance is caused by a 1% change in Intellectual Capital. VARE and VABU contributed 71.8% and 45.7% respectively to the predicting Intellectual Capital, whilst VAST and VAHU

had no contribution to the predicting variable. Though, these four Intellectual Capitals can only be effective together and there is no exclusivity of any of the capitals.

Intellectual Capital recognition is perceived as relevant from a capital market valuation stance. It is recorded that 39.3% of the change in market valuation is caused by a 1% change in Intellectual Capital (VARE, VAHU, VAST and VABU). This also demonstrates that Intellectual Capital influences the valuation of shares of the listed insurance company on the stock exchange. This could act as a pointer to listed insurance company management, accountants and stock market actors to advocate for a mechanism to include Intellectual Capital reporting to the stakeholders.

Intellectual Capital indices (EVA, MVA, FGV, ROE, ROA, ROCE) influence the economic value of listed insurance companies. Hypothesis Six (H6) showed that 48.2% of capital valuation is caused by a one per cent change in intellectual capital (VARE, VAHU, VAST, VABU). It is also confirmed that VAST and VABU add value to the value of listed insurance companies whilst VARE and VABU have no effect, though must act together.

The revised conceptual framework confirmed that the Intellectual Capitals VARE, VAHU, VAST and VABU contribute to the overall performance of the listed insurance companies through the efficient management of the performance indices to improve the company value and hence stakeholders' benefits.

## **CHAPTER SEVEN**

### **CONCLUSIONS AND RECOMMENDATIONS**

#### **7.1 Chapter Overview**

This is the summary and conclusion chapter of the research. It contains a discussion of the accomplishment of the five objectives of the research vide the various analyses carried out. This is followed by the deliberation on the Intellectual Capital advantages of the research and its pragmatic implication together with its deductions and limitations. This chapter discussed the achievements of the research aim, and objectives and answered research questions. It summarised the contributions and limitations of the research and presents suggestions for further research.

#### **7.2 Summary of the Research**

This research involved questionnaires, interviews and analysis of financial statements of listed insurance companies in the cities of Abuja and Lagos, Nigeria. The survey involved administering questionnaires, using online and hand-delivery, to 176 respondents within 44 listed insurance companies in Abuja and Lagos during September 2022 and yielded 141 completed questionnaires (80.1%) by the end of October 2022. The case study interviews were conducted concurrently where approval and acceptance were gained from 20 out of 30 insurance companies (66.7%). The content analysis of the financial statements covered six (6) years from 2015 to 2020 , a total of 116 annual reports.

The field data collected allowed the evaluation of the framework using descriptive analysis, correlation and multiple regression analysis. Each category and its sets of performance indicators signified an independent model of regression in the analysis. The result provided a

statistical indication of the relationship between the variables. Also, it provided the comparative increment value (CIV) for each indicator within the components and their effects on insurance companies' value creation attributes. Furthermore, the case study analysis was used to triangulate the data from the survey results and provide the comparative increment value (CIV) for the components of Intellectual Capital.

The research was planned in four phases, namely literature review, empirical enquiry, analysis, and synthesis. The empirical examination covered questionnaire and interview questions design and fieldwork data collection. The theory construction was achieved through an evaluation outline using a literature review. The evaluation framework constituted a set of independent variables comprising four components categorised under the four Intellectual Capital categories. Each component or category was defined by a set of indicators. The study ascertained the relationship between the independent and dependent variables of the Intellectual Capital capabilities of listed insurance companies. The evaluation outline was used to collect data from the fieldwork. It involved questionnaires, interviews and content analysis of listed insurance companies in Abuja and Lagos.

The interview process involved 20 insurance companies that had some Intellectual Capital capabilities and were drawn from the survey sample during the administration of the questionnaire. The insurance companies were asked during the survey if they would be interested in participating in the case study interviews and 22 insurance companies indicated interest, however only 20 kept to their commitment for interview.

The case study analysis was carried out using two approaches: firstly, exploratory research using a semi-structured interview based on the four categories of Intellectual Capital. This

helped to identify the different indicators employed by the listed insurance companies. The analysis of these data was conducted using NVivo software, version 12. The second approach was applying the primary data analytical tools to financial statements and annual reports of the sampled listed insurance companies including the use of Word Cloud. The outcome helped to establish the survey data's reliability and validity as well as provide the relative weighting value of the ten components and the four Intellectual Capital aspects.

### **7.3 The Accomplishment of Research Aim and Objectives**

This research aims to explore Intellectual capital recognition and the impact of the financial statements and annual report on the value of the listed insurance companies within the context of Nigeria's financial market covering six years from year 1<sup>st</sup> January 2015 to 31 December 2020. This was carried out by establishing the following objectives to achieve the research aim:

#### **7.3.1 Objective One**

*1. To research and review existing literature on Intellectual Capital reporting and recognition and identify gaps.*

The researcher reviewed various works of literature, books, journals, accounting standards, guidelines and policies in Chapter Two on Intellectual Capital in different scenarios and with global contexts to build up concepts, relevance and factors affecting the reporting of Intellectual Capital recognition including using unit analysis of different Intellectual Capital reports. As a result of the extensive review, gaps were identified. Hypotheses were formulated for testing and to validate the quest of this research. This further dovetailed into the development of the conceptual framework in Chapter Three. The research gaps were identified as a result of the reviews conducted in Chapter Two. The gaps have been validated compared

with existing literature on Intellectual Capital in Nigeria as indicated in Table 5.2 - Intellectual Capital (IC) studies in Nigeria.

Based on the above, the researcher can attest to meeting the aim of this research by the confirmation of the existence of the attributes of Intellectual Capital and non-practice of Intellectual Capital recognition and reporting in Nigeria.

### **7.3.2 Objective Two**

*To critically analyse the practice of Intellectual Capital reporting in Nigeria and its impact on the valuation of shares of listed insurance companies in the financial markets of Abuja and Lagos stock exchanges using a case study.*

The researcher engaged in field surveys and reviewed downloaded annual reports and financial statements of listed insurance companies based in Abuja and Lagos via the internet websites of NAICOM and the respective insurance companies. This was validated by the field survey carried out using questionnaires and interviewing process. Through the interview data collected and questionnaires retrieved, the researcher confirmed the non-practice of intellectual capital reporting. However, the feedback from the interview and questionnaire also confirmed the existence of attributes of Intellectual Capital elements informally but never documented and recognised by the term Intellectual Capital.

As a result of the non-recognition of Intellectual Capital due to the circumstances of standards guiding the recording of intangible assets which is a subset of Intellectual Capital, the value created by these hidden attributes or assets is not recognised and transformed into the value of the shares of the insurance companies by the stock exchange. There is no local or International Accounting Standard (IAS) to validate the obligation to report on Intellectual Capital in the

balance sheet and financial records of the listed insurance companies. However, through the testing of Hypothesis Five (H5) by multiple linear regression, it was confirmed that every 33.8% change in capital market valuation perspective is caused by one unit of change in Intellectual Capital consisting of VARE, VAHU, VAST and VABU capitals. This is also supported by the result of the correlation coefficient of capital market valuation given 39.3% of the change in capital market valuation is explained by a 1% change in Intellectual Capital. Therefore, it follows that there is a form of impact of Intellectual Capital on the valuation of shares that is not formally recognised. The researcher confirmed that Objective Two met the aim of the research.

### **7.3.3 Objective Three**

*To develop a conceptual framework for the research of Intellectual Capital recognition in the financial statements of listed Insurance companies*

The research conceptual framework as indicated in Chapter Three was deduced and designed as a result of the review of literature in Chapter Two. The conceptual framework (figure 3.1) conceptualises the entire research idea and the four Intellectual Capital components as independent variables and the ten dependent variables. It is a flowchart that describes the phenomenon of Intellectual Capital and guided the various hypotheses and descriptive statistics undertaken to establish the relationship between them.

Chapter Six presents the various tests and analyses carried out to establish a relationship and linkage between the predicting variable (the various Intellectual Capital categories) and the dependent variables which confirmed the existence of Intellectual Capital in the annual reports of the listed insurance companies, though it is not quantified and recorded in the financial statements. There is no formal recording of the attributes of Intellectual Capital in the financial

books of the listed insurance companies. The researcher opined that there should be a local accounting standard or guideline to encourage listed insurance companies to report this as an Intellectual Capital statement as is the case in developed countries. This objective validates the aim of this research.

#### **7.3.4 Objective Four**

*To analyse and provide a synthesis of the data collected, results and findings using qualitative and quantitative research methods.*

The researcher achieved the point of synthesis of the data collection using qualitative and quantitative methods to expound the theory and practice of Intellectual Capital and its related components within the listed insurance industry in Nigeria. Peradventure, Lagos stock exchange is the main capital market in Nigeria representing every capital market and stock exchange business in Lagos as the commercial centre of the country. The Abuja stock market now deals only in commodities and no stock. The researcher engaged in the collection of research data through a fieldwork survey and interviewing process.

The data collected were subjected to various testing procedures such as descriptive statistics, correlation coefficient and multiple linear regression analysis using tools such as SPSS and NVivo to ascertain the existence or nonexistence of Intellectual Capital at the insurance companies' practices, including policies and statements made by senior members of staff of the listed insurance companies. The companies' annual reports and financial statements were examined reviewing the board of directors and chairman's reports, and statements made at Annual General Meetings (AGMs) of the shareholders. The outcome and inferences from these procedures informed the research regarding the outcome of Intellectual Capital and also confirmed the valuation of listed insurance companies. Intellectual Capital operates as the most



important contributor to justify the value difference between the market value and book value of many organisations (Beattie & Thomson, 2007, p.163; Bozbura et al., 2007 p.1100; Mouritsen et al., 2001, p.735; Wall et al., 2004; Yang & Lin, 2009). The attainment of this objective supports and validates the aim of this research. Understanding the real value of all assets provides a more accurate reflection of the worth of a company, which supports the corporate goals of transparency to shareholders, potential investors and capital market analysts (Ramezan, 2011, p.88).

### **7.3.5 Objective Five**

*To provide recommendations to identify the true value of Intellectual Capital impact on the shares of insurance companies in the Nigerian financial markets.*

Intellectual Capital recognition in the financial annual reports of listed insurance companies was ascertained and demonstrated by the possession of any components of Intellectual Capital adding value capability to the company value creation process. It was concluded that the presence of Value Added Relational Capital, Value Added Human Capital, Value Added Structural Capital and Value Added Business Recipe (Strategic) Capital in a listed insurance company predicts the relevance and existence of adding and creating more value. With the outcome of this research, the recommendation is that there should be a form of Intellectual Capital reporting system to inform investors and stakeholders of the true value of listed insurance companies in Nigeria. Value Added Relational Capital had a significant effect on the Return on Capital Employed from the primary data and the Return on Assets from the secondary data.

These results showed that the loyalty of customers to an organisation is vital to its assets' growth capabilities. Clear and proper records of Relational Capital should be maintained by

companies. If such records were kept, the calculation of Intellectual Capital would be easy. Intellectual Capital accounting is an important component of modern-day business. Its essence should be incorporated into the day-to-day running of every business sector including the insurance industry. For example, Eccles et al., (2001) and Lev (2000) have argued that the demand for external communication of Intellectual Capital is increasing as several companies base their competitive strength, and thus the value of their company, on know-how, R & D, patents, skilled employees and other intangible assets.

Hypothesis Five (H5) was tested by using multiple linear regression and correlation coefficient capital market valuation concluded that every 33.8% and 39.3% respectively changes in capital market valuation perspective are caused by one unit or 1% of the change in Intellectual Capital consisting of VARE, VAHA, VAST and VABU Capitals. According to Bukh (2002, p.51), “an analysis of disclosure in prospectuses could provide insight into the function of Intellectual Capital statements for the capital market’s valuation of Intellectual Capital since an admission to listing on the stock exchange offers an opportunity to study the process behind the market’s assessment of a company’s value, that which is disclosed for a fair market valuation”.

The incorporation of information about Intellectual Capital in an Initial Public Offering (IPO) prospectus indicates that the company and its advisers believe this type of information is important in the capital market’s assessment of the value of the company. In practice, Intellectual Capital statements contain various financial and non-financial information, for example, staff turnover, job satisfaction, in-service training, turnover split on customers, customer satisfaction, and precision of supply. Therefore, objective five attainment meets the aim of this research.

## **7.4. Responding to the Research Questions**

### **7.4.1 RQ1. What impact would Intellectual Capital recognition have on the value of listed Insurance companies in the Abuja and Lagos Stock Exchanges?**

#### **7.4.1a Results of Research:**

The researcher carried out a statistical descriptive analysis of which items 51 to 64 contributed answers to the question of the value impact of Intellectual Capital on the listed insurance companies in Abuja and Lagos. These items covered the Economic Value Added (EVA), Market Value Added (MVA) and Future Growth Value (FGV) This evaluated the market value added by the Intellectual Capital according to the responses from the respondents. The EVA ranking system in Table 6.6 has shown clearly that a higher percentage of the participants agreed to a large extent that financial statements with Intellectual Capital information are viewed as a communicating device used by companies to communicate their information to various stakeholders especially investors (3.46). These financial statements remain the necessary instrument that gives the stakeholders and shareholders an overview of the impact of Intellectual Capital on insurance companies' economic value.

The MVA responses are "Lack of accounting standard led to a reduction in value relevance of information in financial statements" ranked 1st followed by "Awareness of the importance and relevance of disclosing and recognition of Intellectual Capital information is growing as it increases a company's profitability" with 3.80 mean score as the 2<sup>nd</sup>. "Accounting practices and standards do not specify the recognition criteria of Intellectual Capital, its measurement and disclosure, rendering it difficult to communicate useful Intellectual Capital information to users and investors" is 3<sup>rd</sup> on the rank with a 3.65 mean score. "Financial markets are more accurate in their valuation of companies and any excess valuation of a company over its book value will be the correct valuation of the company's Intellectual assets" took the 4<sup>th</sup> position.

The market value of a company would be less relevant without a backing accounting standard on which to base its justification of inclusion in the financial statements.

On Future Growth Value (FGV), Table 6.8 points out that the “Value of brands is more visible to current investors and potential investors” is placed first on the rank with a 3.93 mean score, “Intellectual Capital is a significant factor that assists companies to create value and sustain future strategic competitive advantage” followed at 2<sup>nd</sup> with 3.88 mean scores. The 3<sup>rd</sup> (3.87) on the ranking is “Your company’s recognition plan and strategy are formed by the perception of how capital market participants understand value relevant information” while “Lack of Intellectual Capital recognition. company runs the risk of being subject to hostile takeovers” was ranked last and 4<sup>th</sup> with 3.62 mean scores.

The above is the usual descriptive statistics for all five variables of one dependent and four independents. Note that N, which represents the total number of participants (respondents) is 141 because there are no missing scores on any variables. Multiple regression uses only the participants who have complete data for all the variables.

Furthermore, to validate the results of EVA, MVA and FGV above, the inference from Hypothesis Two tested using multiple linear regression (MLR) confirmed that a 51.9% change increase or decrease in the insurance company profit is caused by one unit change in Intellectual Capital. This shows the importance of the impact of Intellectual Capital. VARE and VABU capitals contribute 71.8% and 45.7% part of the Intellectual Capital respectively. This supports the outcome of Hypothesis Two.

The Model Summary Table 6.14 indicates the result of the correlation coefficient (R) which is 0.722, using all the independent variables at once,  $R^2 = 0.522$  and the adjusted  $R^2$  is 0.508. This implies that 51% of the changes in company profitability are explained by VARE capital, VAHU capital, VAST capital and VABU capital altogether i.e. 51% of the change in company profitability is caused by a unit change in intellectual capital which consists of VARE, VAHU, VAST and VABU capital.

Table 6.38 shows the valuation of shares of selected insurance companies. The 16 sampled insurance companies are listed on the Lagos and Abuja stock exchanges. The valuation of shares was determined by the relationship between the net asset of the organisation, preference share capital and the number of equity shares (Asset-based approach). The table showed that D Insurance Plc had the highest valuation of shares (5.75) and was ranked first. B Insurance Plc company ranked second (4.32), M Insurance Plc ranked third (2.35) and C Insurance Plc was ranked 16th (0.20). This is also presented in Figure 4.1 as shown above. The mean value of shares was 1.49. Only five of the organisations had shares with a value greater than the mean valuation of shares.

Table 6.40 shows the summary of the Pearson Correlation on the impact of the practice of Intellectual Capital Reporting in Abuja and Lagos on the valuation of shares. The measurement of the Intellectual Capital reporting consisted of VARE capital, VAHU capital, VAST capital, and VABU (Strategic) Capital. The location of the insurance companies was also added to provide more insight into the result of the research. A positive relationship depicts that an increase in one variable would consequently cause an increase in the other variable and vice versa while a negative relationship would mean that an increase in one variable would consequently cause a decrease in the other variable and vice versa. The result showed that there

exists a negative impact of the location of the insurance company on the valuation of shares (-0.14) which was not statistically significant ( $0.589 > p\text{-value } 0.05$ ). There is a negative relationship between the VAHU capital component and the valuation of shares (-0.17) which was not statistically significant ( $0.52 > p\text{-value } 0.05$ ). There is a positive relationship between the investment in VAST capital and the valuation of shares (0.219) which was not statistically significant ( $0.416 > p\text{-value } 0.05$ ). There exists a negative relationship between the VARE capital component and the valuation of shares (-0.146) which was not statistically significant ( $0.618 > p\text{-value } 0.05$ ). However, there is a positive relationship between the VABU Capital component and the valuation of shares (0.595) which was statistically significant ( $0.015 < p\text{-value } 0.05$ ).

In light of all the quantitative method criteria tested and inferences accordingly, the researcher is confident that Research Question One (RQ1) has been adequately answered.

#### **7.4.1b Findings:**

The non-recognition of Intellectual Capital will impact the value of listed insurance companies. The extent to which non-recognition of Intellectual Capital can affect the value of listed insurance companies in Abuja and Lagos Nigeria was discussed by the interviewees. The respondents opined that non-recognition of Intellectual Capital by their insurance company will negatively impair the standard of the company, and reduce the interest shown by the investors and the overall performance of the company, as stated below by one of the interviewees.

*“When Intellectual Capital is ignored in an insurance company, it declines the company’s standard. When the standard is compromised, it declines the interest of investors. This is because investors will look for the best standard and high intellectual competence and financial*

*competence; competence in general of a company. When that aspect is lacking, the rating of that company will be reduced”.*

#### **7.4.2 RQ2. Are there any facets of Intellectual Capital recognised in financial statements and or annual reports of listed insurance companies in the Abuja and Lagos stock exchanges?**

##### **7.4.2a Results of research:**

To answer the above research question, the researcher carried out a questionnaire survey and content analysis investigation which produced the following results:

The outcome of Hypothesis Three (H3) (Table 6.18) showed that the company's Value-Added Human Capital is negatively related to the company's age with a coefficient of  $r = -0.107$ , which is also not significant (0.488). Likewise, Value Added Structural Capital and Value Added Business Recipe (Strategic) Capitals are also negatively related to the company's age with a Pearson Correlation Coefficient of  $r = -0.041$  and  $-0.164$  which are also not significant with 0.793 and 0.287 p- values respectively. This is consistent with Goebel (2015, p.109) who “finds a negative but insignificant relationship between Intellectual Capital value and firm age” and Forte et al. (2017, p.715). This confirmed that some facets of Intellectual Capital existed in the sample of listed insurance companies' contents analysed.

Hypothesis Four (H4) (Table 6.20) above shows a matrix of the correlation coefficients for five variables. The table gives an analysis of the correlation coefficient, the significance value of the correlation and the sample size (N). Each variable is perfectly correlated with itself,  $r = 1$  along the diagonal of the table. The company's VARE capital is positively linked to the company's leverage status with a Pearson Correlation coefficient of  $r = 0.092$ , this co-efficient

indicates a very weak relationship and the significance value (0.368) is greater than 0.05, that is, the relationship between company's Value Added Relational Capital and leverage status is not statistically significant (insignificant). The output also shows that the company's Value Added Human Capital is positively related to the company's leverage with a coefficient of  $r = 0.080$ , but not significant (0.384). Likewise, Value Added Structural Capital and Value Added Business Recipe Capitals are also positively related to the company's leverage with a Pearson Correlation Coefficient of  $r = 0.186$  and  $0.148$  which are also not significant with p-values of 0.245 and 0.292 respectively. This also demonstrated that some facets of Intellectual Capital existed in the listed insurance companies.

#### **7.4.2b Findings**

From the qualitative method point of view, Table 6.32 shows Intellectual Capital (IC) components that the interviewees (respondents) attested to have been captured in the annual reports of their insurance companies. The sources are the number of insurance companies and references are the number of times an intellectual capital attribute or facet was mentioned. Most of the respondents (10) attested that “employee training and education” is the most common intellectual capital element, mentioned 18 times as the component that is captured on the annual report of the insurance companies in Nigeria. This is followed by “information system” mentioned 11 times by 9 insurance companies, “research and development” mentioned 8 times by 5 respondents and “innovation and technology”. On the other hand, the least captured Intellectual capital components on the financial statements and annual reports are “employee experience”, “qualification”, “competence” and “channel of communication”.

The content analysis revealed some of the facets of Intellectual Capital over the six years as shown in Figure 6.20, “employee skill”, “employee training”, “organisational reputation”,



“employee experience”, “organisational awards”, “technology”, “employee expertise”, “innovation”, “employee capabilities”, and “employee productivity” were frequently recognised and reported as Intellectual Capital in the annual reports of the listed insurance companies.

### **7.4.3 RQ3. What is the role of Intellectual Capital in the value creation of listed Insurance companies in the Abuja and Lagos stock markets?**

#### **7.4.3a Results:**

The practices and business processes leading to value creation are the ultimate goal of any organisation. The wealth-growing capability of the listed insurance companies contains Intellectual Capital components resulting in increased profitability. These practices played a huge role in the success of the listed insurance companies in Abuja and Lagos. The researcher’s questionnaire items 65 to 78 addressed research question three (RQ3) as stated below:

Table 6.9 showed that “Return on Equity, Networking by the managers have greatly impacted on our profitability” ranked 1<sup>st</sup> with a mean score of 3.74, ranked 2<sup>nd</sup> is “Where the Returns on Investment (ROI) from managers are not adequate, investors may likely divest” with a mean score of 3.69. The response, as a measure of managers’ financial management in a company, “Return on Equity adequately indicates the rewards arising from such investments” is ranked 3<sup>rd</sup> with 3.64. “Insufficient investment may not necessarily result in insufficient returns where strategic investment plans are employed by the management” followed by a 3.58 mean score. The 5<sup>th</sup> and lowest on the ranking chart is “Equity capital must be combined with borrowed capital by the managers to maximise returns” with a 3.54 mean score. Furthermore, all the mean scores of the items above range between 3.55 to 3.74 depicting that a majority of the respondents agreed to a large extent with the items of the questionnaire. The relevance of return

on equity (ROE) contributes to the value of intellectual capital. This is consistent with Chen et al. (2005) as quoted by Kehelwalatenna and Premaratne (2013, p.4) who stated that ROE is generally an important financial indicator for investors. However, establishing additional relationships by introducing performance indicators that more specifically assist investors would address the issue of lack of evidence on the value relevance of Intellectual capital to investors.

Table 6.10 indicates that Return on Assets (ROA) has “Prudent financial management by managers bring about high financial performance” as first on the rank with 3.78 This is followed by “Company’s financial growth may not necessarily be reflected in the fixed asset growth” with 3.62 as the mean score. “Management need not bother about returns as long as adequate tangible assets have been invested in the company” ranks third with 3.31. Furthermore, all the mean scores of the items above range between 3.31 to 3.78 depicting that a majority of the respondents agreed to a large extent on the items of the questionnaire.

On Return on Capital Employed (ROCE) “the value of a company’s investment is increased by the skilful use of resources by the management” tops Table 6.11 with a ranking of 1<sup>st</sup> (3.94). Then “high return on capital employed is evidence of the financial prudence of managers in my organisation” was ranked 2<sup>nd</sup> with 3.93, and “Investors’ capital contributions to the business must be adequately employed by the management for profit maximisation” occupied the 3<sup>rd</sup> position with 3.89. The bottom of the table was occupied by “Investment in Intellectual Capital in my company is significantly influenced by its profitability” in 5<sup>th</sup> place with a 3.78 mean score and “the proportion of a management’s input has no direct bearing on the capital employed in the organisation” was placed in the last position with 3.60 mean score. Furthermore, all the mean scores of the items above range between 3.60 to 3.94 depicting that a majority of the respondents agreed to a large extent on the items of the questionnaire

### 7.4.3b Findings

Qualitatively, the role of Intellectual Capital in the value creation of listed insurance companies in Nigeria can be underestimated. It has been lost in recognition due to a lack of enabling accounting standards to support its recording in the financial statements of these companies. Respondent M has strongly spoken to this fact as stated below, although respondent H opined that because the role of Intellectual Capital has not been captured, does not mean it does not affect the value of the company. Intellectual Capital, though it existed, has not been recognised in the books of the listed insurance companies.

*“As mentioned earlier, the role of human and relational capital cannot be overemphasised in a company, and when it is not recognised, it affects most of our production. So, the value of intellectual capital has a positive and negative impact on the value of the organisation”*  
**(Respondent M).**

One respondent posited that Intellectual Capital has not been properly recognised in the financial statements of insurance companies as stated below

*“Presently, the role of Intellectual Capital has not been properly recognised in the financial statements of the insurance company, but I believe with time, it will be”* **(Respondent M).**

While another believes it has not been captured at all, so does not affect the value of the company.

*“Currently, it is not affecting the value because it is not being recognised”* **(Respondent H).**

## **7.5 Summary of the Results**

This research examined the effect of intellectual capital on company profitability. The observation period of this research is six years, from 2015 to 2020. This research used primary and secondary data obtained via questionnaires, interviewing and annual reports of listed insurance companies in Abuja and Lagos, Nigeria. The samples are taken using purposive sampling consisting of 44 companies. In this research, the analysis is expanded by comparing the period before the application of IFRS and the consideration of Intellectual Capital components. The development of the application of IFRS is necessary to be observed because the period of the research is from 2015 to 2020, during which, based on the regulations, there occurred enforcement of mandatory application of IFRS in Nigeria from 2012. The expansion is carried out by the researcher for the depth of analysis of the test results. In theory, Intellectual Capital affects the company's financial performance, in which high Intellectual Capital indicates that the human resources of the company can explain the variable of financial performance.

The test in this research used multiple regression analysis consisting of the testing of external models and internal models. Judging from the results of data analysis and discussion, it can be concluded that (1) the test result of the effect of Intellectual Capital on the financial performance of insurance companies in the period of 2015 - 2020 proves that Intellectual Capital has a significant effect on company profitability, (2) the test result of the effect of Intellectual Capital on the financial performance of insurance companies in the period of 2015 - 2016 and 2017 - 2018 proved that Intellectual Capital has a significant effect on financial profitability.

## **7.6 Summary of the Findings**

In contemporary economies, most economic value and wealth are generated from Intellectual Capital and not physical assets. 50 per cent to 90 per cent of value generation in firms today can be claimed to be the result of intellectual capital at work. Today, in most organisations significant sums are allocated to items like research and developments, staff training and access to new technologies. Yet most organisations fail to indicate and reflect in their balance sheets significant long-term assets such as staff knowledge, researched technologies, production contracts, marketing systems and distribution networks (Chen, Zhu and Xie, 2004 p.199).

## **7.7 Generalisability of this Research to Other Industries**

From Table 6.42, few insurance companies recognise Intellectual Capital attributes such as organisational structures, employee know-how, intellectual property, R& D, employee team working, and customers and clients training.

The researcher suggests that the management of insurance companies in Nigeria should invest more in promoting the Intellectual Capital attributes mentioned above as only a few are doing this currently. The investment in these Intellectual Capital attributes by insurance companies would result in creating a competitive advantage strategically and hence improved profitability. These practices can be generalised to other industries such as banks, mobile and media telecommunication businesses, hospitality and health care service industries in Nigeria and other developing economies in Africa and or non-Western countries.

Every organisation engages the services of employees and human resources to operate the business. Therefore, there are Intellectual capital attributes that exist in every organisation, especially those listed on the various stock exchanges in Nigeria and other developing

countries. Consequently, every finding and result applicable to the listed insurance companies in Abuja and Lagos can be replicated in other companies, such as in banking, financial services, mobile and media telecommunication, health care and hospitality services where human resources services are required. This research revealed the importance of the influence of Intellectual Capital on the performances and valuation of listed insurance companies on the Abuja and Lagos Stock Exchanges. This can be replicated in other stock exchanges in Nigeria generally including stock exchanges in other developing economies. The results and findings indicate that the relationship among value-added relational capital, value-added human capital, value-added structural capital and value-added business recipe (strategic) capital is important for listed insurance companies. Conventionally, organizations tend to rely solely on the employees' knowledge and competencies. The results of this research indicated that the individual effects of the intellectual capital components are not sufficient prognosticators of corporate performance and value creation. Organisations should foster and nurture the employees into a culture of sharing their knowledge by creating internal and external networks including a support system created within the organisation to retain knowledge. This infers that to positively leverage investment in value-added human capital, listed insurance companies should also invest in the development of relational capital to provide necessary conditions for employees to network and share knowledge.

Furthermore, based on the findings, the research recognised that corporate reputation has an arbitrating effect on the relationship between intellectual capital and financial and non-financial performance indices. This goes further to suggest that organisational image, media presence and corporate social responsibility are significant instruments of communication to insurance companies listed on the Nigeria Stock Exchange as it minimises information asymmetries experienced by diverse stakeholders. The results impliedly indicate that corporate reputation

has a bearing on nonfinancial indicators, thus management endeavours to invest and or include strategic resources in corporate reputation strategic enhancement. In addition, this research ascertained that Intellectual Capital as part of intangible assets provides a greater explanation of value creation and profitability than the result of individual variables.

## **7.8 Contributions to Knowledge**

Through this research, significant contributions have been made to the body of knowledge:

- 1) Identification of the impact of Intellectual Capital on the financial performance of listed insurance companies in Abuja and Lagos, Nigeria.
- 2) Possibility of the measurement and recording of Intellectual Capital in the books of insurance companies.
- 3) Motivation is created as a result of the recognition of the human capital contribution among employees.
- 4) Modifications in the calculation of Intellectual Capital by replacing capital employed with Value Added Relational capital.

### **7.8.1 Academic-Based Contribution**

This research investigated the characteristics and significance placed on Intellectual Capital in the insurance industry in Nigeria. It critically assessed the impact of Intellectual Capital information on company profitability through the recognition of Intellectual Capital components in the industry. The approach employed by this research may allow academic researchers to investigate the impact on the market value of non-accounting sources of information. The findings of this mixed methods research seek to fill some of the gaps identified in the literature. This section highlights the potential contribution this research makes

to the extant Intellectual Capital and insurance literature, to practice within the insurance industry and to research methods literature.

Finally, in terms of the contribution to the extant literature, this study validates previous research which highlighted that the intangible assets within organisations contributed to their performance, by testing this emerging theory in a new area. This research also contributes to the Intellectual Capital literature by analysing the components of Intellectual Capital to create a classification of terms that can be used to describe the attributes of Intellectual Capital as it relates to the insurance industry.

### **7.8.2 Theoretical contribution**

This research introduced the construct of Value Added Business Recipe (Strategic) Capital as an attribute of Intellectual Capital. This is to highlight the importance of relationships with stakeholders in the development of Value Added Relational Capital in the insurance industry in Nigeria. Therefore, this research contributes to the extant literature by furthering our understanding of Intellectual Capital in areas other than knowledge-intensive industries. This research extends the insurance industry literature as it relates to intangible drivers of profitability. This also contributes to the Intellectual Capital literature by providing empirical evidence on the Intellectual capital and performance linkage within the insurance industry.

In terms of the contribution to the extant literature, this study validates previous research which highlighted that the intangible assets within organisations contributed to their performance, by testing this theory in a new area.



### 7.8.3 Practice-Based Contribution

The following are some of the practice-based contributions:

- Development of a holistic conceptual framework that combines Intellectual Capital value-added capital and performance indicators to enhance the value of listed insurance companies.
- To reduce information asymmetries between companies and investors that would lead to lower cost of capital.
- Intellectual Capital information recognition will assist in increasing the relevance of financial statements to facilitate the process of share valuation.
- Use of mixed methods through the collection of both primary and secondary data
- Research on intellectual capital on listed insurance companies' financial statements posts IFRS introduction in developing countries like Nigeria. Research focuses on two key areas – Lagos and Abuja, compared to previous studies, etc
- The contribution to internal management purposes particularly in the area of controlling and managing the performance of insurance business activities.

### 7.9 Summary of Research Gaps and Contributions

Below is a table summarising research gaps and contributions:

No	Research Area	Existing Research	Research Contributions
1	Intellectual Capital Independent variable - VARE, VAHU, VAST, VABU	VA, HCE, VAIC,	Analysed the components of Intellectual Capital to create a classification of terms that can be used to describe the attributes of Intellectual

	Dependent variable- EVA, MVA, FGV	ROA, ROE, ROI EPS	capital as it relates to the insurance industry.
2	Period of Research coverage 6 years – 1 <sup>st</sup> January 2015 to 31 December 2020 on Insurance companies in Nigeria	One to five years research coverage	One additional year, to 6 years research coverage  (Novel)
3	Research period -Includes 2018 and 2020, years of recapitalisation of Insurance companies' capital and Tier Based Minimum Solvency Capital and Paid up Minimum Capital	Records up to 2016, under the 2007 recapitalisation	Novel – 2018 to 2020. Data covered under multiple recapitalisation regimes within the insurance industry,  (Novel)
4	First post-international Financial Reporting Standard 2012 (IFRS) introduction in Nigeria Intellectual capital research of listed insurance companies	None	One of the first research on Intellectual capital on listed insurance companies' financial statements post IFRS introduction in Nigeria.
5	Fourth category of intellectual capital-	None	Novel, This is the first time Business Recipe capital or

	Business Recipe (Strategic capital) Novel in listed insurance companies in Abuja and Lagos		Strategic capital has been applied as the 4 <sup>th</sup> Capital of Intellectual capital in Nigeria  <b>(Novel)</b>
6	Focus on Abuja and Lagos listed insurance companies	Non existent	Novel, being the first within listed insurance companies in Abuja and Lagos  <b>(Novel)</b>
7	Mixed method Intellectual capital research in listed Insurance companies in Nigeria	Mostly single method Quantitative.	Quantitative and Qualitative perspective of Intellectual Capital within the listed Insurance companies.in Abuja and Lagos  <b>(Novel)</b>
8	Data analysis tool - Word Cloud - Novel in listed insurance companies in Abuja and Lagos	None	Novel, Word Cloud introduced to analysis of data relating to Intellectual capital in Nigeria  <b>(Novel)</b>
9	Triangulation between data sources from listed insurance companies in Abuja and Lagos	None	Novel, first time used within Intellectual Capital research on listed Insurance companies in Nigeria  <b>(Novel)</b>

Table 7.1 Summary of Research Gaps and contribution

## **7.10 Implications for Theory and Practice**

This research has been concluded with a full realisation of the varied implications, whether implied or expressly presumed about Intellectual Capital recognition and its value-adding capacity. Intellectual Capital recognition in financial statements and the effect on the valuation of listed insurance companies affects a wide range of stakeholders, such as management, shareholders, employees, government, Nigeria's accounting standard board, preparers and users of financial statements and annual reports, capital market, and NAICOM in diverse ramifications of engagements with Intellectual Capital recognition reporting.

The enhancement of the value of listed insurance companies would give rise to increased profit which would in turn result in increased payment of company tax to the government.

The expectations of employees from the management of the companies would rise followed by an increase in shareholders' dividend payment expectations as a result of a value increase in company profitability. On the international front, there has been a commercial basis for both companies' financial and sustainability reporting to be all informative and transparent including the value created from Intellectual Capital recognition. (Christensen et al., 2021; IFRS, 2021; ACCA, 2021). According to Mary Adams (2017, p.3) "The International Integrated Reporting Council (IIRC) is leading the charge in creating a model that unites these differing perspectives. Its Framework provides a way forward to creating holistic presentations that explain the multiple forms of capital that support a company's value-creation ecosystem. The IIRC model draws on the traditional accounting/financial reporting perspective, the sustainability/ESG movement and a third, less understood field of study, broadly referred to as Intellectual or Intangible Capital". The researcher believes that soon, the recognition of Intellectual Capital in financial reporting will become mandatory globally as an accounting standard. (Albertini, 2020; Dumay, 2020).

“The Intellectual Capital field has been focusing for several decades on the rise of the knowledge economy. While Intellectual Capital practice is not as advanced as accounting and sustainability”. (Adam, 2017, p.3)

### **7.11.1 Implications for strategic management**

The attributes of Intellectual capital that are not recognised by the listed insurance companies require more attention and investments by management. (Olawajaju, 2021; Evans, 2015). For example, customer loyalty creation should be encouraged in every organisation. Investors' information dissemination of Intellectual capital attributes requires manpower and human resources in the compilation of Intellectual Capital reports. Employees' know-how should be acknowledged by management and encouraged by way of providing more training. The provision of a training strategy should be deliberate and include planned mandatory training for companies' employees in Nigeria and Overseas. (Nassazi, 2013; Elnaga and Imran, 2013). Investments in modern information systems infrastructure including research and development should be encouraged by managers. (Schot, 2018; Fichman, 2014). Employee Innovation schemes to motivate and encourage innovation should be emphasised by the insurance companies to enhance and improve productivity, and performance, and increase profitability to enhance competitive advantage in the marketplace.

An Intellectual Capital awareness campaign should be embarked on by management to provide more on-the-job training and outside training including courses for managers and top management staff. (Al-Tit, 2022; Eby, 2019; Abbas, 2010). This practice creates the importance and relevance of Intellectual Capital within an organisation. Protection of the company's trade markets, patents, licences, brands, and intellectual property should be valued

and recognised in the financial statements of the companies (Kenton, 2022; Saha, 2011). Recruitment policy should be robust to include stringent, procedures to recruit talent and intelligent employees that would be assets as a result of the knowledge and skills they would bring to the company (St-Jean, 2022; Bond, 2021; Yu-Ru, 1999).

Present and prospective employees should be required and encouraged to possess good qualifications and competencies that would improve the productivity of insurance companies (Wikijob Team, 2023; Zhenjing, 2022; Hicks, 2021). Effectual utilisation of employees results in added economic output, improved economic development and revenue increase. (Polgeorgis, 2022; Grant, 2017). Higher educational achievement, advanced literateness level and greater echelons of value-added human capital are mostly expected to improve the business atmosphere and generate a competitive environment that would entice Foreign Direct Investment (FDI) into the business (Morsy, 2022; Chika, 2014). Nevertheless, value-added human capital singularly would not; by itself bring about a competitive advantage. (Ardito,2021; Handayani, 2020; Islami, 2020; Tan, 2014)

On a different dimension, the existence and creation of networks within and outside the insurance companies enable the transmission of knowledge from employees to groups in the company. (Cordova, 2018; Andreasian, 2013). Additionally, the insurance industry should put into place suitable structures and or systems that will drive the performance of the listed insurance companies. (Beers, 2023; Kotanko et al., 2019; Kwon, 2016). For example, Human resources management and strategy should include mental and emotional well-being schemes for employees. Management should celebrate qualifications gained by staff and organisational award culture and creativity, and corporate social responsibility recognition ceremony of top performing employees periodically, weekly, monthly and annually. (Byvalkevych, 2018; Gedeman, 2013)

The management of insurance companies should invest in systems to protect organisational reputation as an Intellectual capital. (Claringbold, 2023; Faustino, 2023; Berger, 2021) There should be strategic plans to manage the different risks associated with maintaining a stable and consistent reputation of insurance companies. Management should ensure deliberate and strategic plans are in place to mitigate or avoid reputational risk either from employees, board members, insurance agents and relationships with suppliers and other stakeholders. (Council, 2022; Deloitte, 2016; Joosub, 2006) Policies dealing with Illegal, unethical together with unprofessional conduct and practices should be vigorously addressed and discouraged in the company (Goldfield, 2015).

This research implies that managerial staff should understand that Intellectual capital components such as value-added human capital should inform pragmatic human resource strategies and policies in organisations both in Nigeria and other developing countries. (Fareed, 2022; Mohluddin, 2022; McCartney, 2022). This may also lead to better organisational customs and practices of the strategic management of human resources in the company.

According to D’Oria (2021), “the resource-based view (RBV) suggests that competitive advantages arise due to possessing strategic resources, i.e. assets that are valuable”. Barney (1991, pg.99) claimed: “Firms need to exploit or use the strategic resources they possess”. Therefore, managers should identify and recognize the relevance and importance of the Intellectual Capital components in their company as an overall corporate strategy and ensure it is documented, protected and accounted for in their financial statements and annual reports. (Council, 2022, 2014)

The importance of the relationship between the insurance companies and their external stakeholders was highlighted as a key feature in the development of value-added relational or social capital within the insurance industry. (Hudgins, 2022; Olarewaju, 2021; OECD, 2017)

The implication of this to managerial staff is that policies and practices are required to develop value-added relational capital by managing the relationship with external stakeholders. This echoes the fact that it is not only customer relationships that are crucial in the advancement of relational capital value but the association and working with the neighbouring public as they provide employees and supplementary prime resources for the creation of Intellectual Capital values. (Deloitte, 2019). Furthermore, this research offers perceptions on value leveraging insights arising from customers' and suppliers' relationship management schemes through the combination of all the components of Intellectual capital.

This research practice implies that management teams should comprehend the possible financial and non-financial benefits of having effective and efficient public relationship management in place. Also, this research recommends that investment in the information systems attribute of value-added structural capital does not on its own provide the companies with a competitive advantage. It is the combination of the information systems with the other components of Intellectual capital that creates capabilities which are company specific and distinctive that provides a competitive advantage. (Twin, 2022; Albertini, 2020) This insight should enable managers to better allocate their resources towards the creation of capabilities that are firm-specific and which would result in the firm achieving a competitive advantage. (Messineo, 2023; Twin, 2022; Zahra, 2006)

### **7.11.2 Managerial implications**

The findings of this research revealed that an awareness of the existence of Intellectual Capital by Chief executive officers (CEO), directors and managers in listed insurance companies assist in the acquisition of new and novel knowledge from an external environment. The newly acquired knowledge can lead to innovative methods of dealing with any new concepts and



ideologies. The management's response and stylishness help to improve the efficacy and competence of applying the new idea and novel knowledge.

In addition, it is resolved that Intellectual Capital plays a significant part in creating lively capabilities, which increases the companies' enablement to deliberately invigorate their knowledge resources and renew intellectual capital attributes. Therefore, CEOs, directors, and managers of organisations should focus on the culture of developing and nurturing Intellectual capital components to achieve competitive advantage in their businesses. Continuous innovation is considered as a measure of success for any company based on retaining well-educated employees, who have skills and knowledge rather than high workforce turnover (Hsu and Wang, 2012). Consequently, organisations may pay attention to attributes of social, human, structural and business recipe capitals to generate or enlarge the processes of incessant innovations that come via intellectual capital. The results of the research showed that stages of Intellectual Capital can turn into positive financial and non-financial outcomes that can build or develop capabilities to enhance companies' value-added market share, sales, profitability, and growth. Therefore, CEOs and managers should focus attention on developing relationships with customers and suppliers as well as growing strong ties and networks among employees (Pfajfar, 2022; Porter and Nohria, 2018; Ibarra et al., 2007). This might involve expanding activities for sharing and exploiting knowledge. Therefore, directors and management should place equivalent emphasis on the investment in acquiring new knowledge and exploiting that new knowledge to achieve reasonable satisfaction and positive financial outcome (Jeffery, 2009; Rappaport, 2006)

### **7.11.3 Implications for other users of Accounting Information**

Numerous users of financial statements and annual reports information such as financial analysts, and investors, who derive information from companies' financial and accounting reports find the recognition of Intellectual Capital attributes and indices very useful. (Loth, 2023; Murphy, 2023; Michelin, 2020). A variety of accounting information users exist even outside of Nigeria who require the use of financial statements and annual reports of companies in Nigeria for investment purposes. For financial statements and annual reports to be utilised as reference information for investments, they should be able to include Intellectual Capital components to give a reasonable and adequate amount of valuation of the companies concerned.

## **7.12 Conclusion**

Intellectual Capital has emerged as a key concept to analyse and evaluate the intangible dimensions of an organisation. While no conceptual framework on Intellectual Capital has been agreed upon, proponents of Intellectual Capital research have suggested that it is the leveraging of Intellectual Capital and its components that allow an organisation to create and sustain a competitive advantage.

According to Garcia-Ayuso M. (2003, p.59), there are opinions that the day-to-day value and relevancy of the information reflected in financial reports are reduced because there are no standards to represent an important part of enterprises' assets (that is, Intellectual Capital).

The literature review section has sought to highlight the various facets of the multi-dimensional construct of Intellectual Capital by examining the various definitions, classification schemas, evaluation methods, recognitions and disclosure practices that have been advocated. As Intellectual Capital theory evolves, it can be used as a lens to explain not only how Intellectual Capital can be created, acquired, accumulated, developed, retained, managed and reported but

how its value can be manifested within insurance companies. Accounting for Intellectual Capital and the perceived inadequacy of the traditional financial practices for dealing with the knowledge-based economy deserved some theoretical analysis. The measurement and management of Intellectual Capital are influenced by different theories of the firm and thus two theoretical frameworks are incorporated into the literature to further our understanding of the construct. First, the resource-based view is a framework built on the premise that a firm's success is largely determined by the resources it owns and controls (Wernerfelt, 1984; Edwards, 2014; Jurevicius, 2021). These resources are either assets or capabilities, but the capabilities are intangible bundles of skills and knowledge exercised through organisation routines (Nelson and Winter 1982; Guesaiaga et al., 2018), and are sources of competitive advantage.

Researchers have extended the resource-based view and developed a dynamic capability framework and a knowledge-based view of the firm thus arguing that knowledge, a component of Intellectual Capital, is a critical resource in this dynamic environment. The literature has identified some perceived shortcomings in these transactions' cost economic-based theories of the firm as it relates to social contracts and proposed an extension in terms of a social capitalist view of the firm. As managers make decisions within organisations, they will draw on their experiences and knowledge to make sense of and interpret their environment.

The implications of this research are substantial. The empirical findings provided additional precision to the underlying theories. This research provides a model and methodology for testing relationships among the components of Intellectual Capital recognition in financial statements and annual reports. The uniqueness of this research rests on the fact that it offers a methodology for examining a new combination of constructs arranged in a specific pattern. These ideas and contributions are special since a newly developed model has been added to the Intellectual capital literature, in that this research provided a model indicating how Intellectual

Capital can be leveraged to have a significant impact on the value of listed insurance companies.

Apart from the limits of the research data, this research is a step towards clarifying additional thoughts on the effects of Intellectual Capital on listed insurance companies' performances. It is anticipated that future researchers will espouse and progress on some of the approaches utilised in this research, to offer the required and adequate empirical provision to the basic theories for Intellectual Capital. Based on the outcomes of this research, management and actors in the insurance industry in Nigeria and scholars globally may continue to pursue approaches to better understand the relationship between Intellectual Capital and corporate financial performance. Furthermore, the importance of Intellectual Capital increases constantly, as the gap between market value and book value widens for all enterprises. Thus, it is becoming clearer that there is a good reason to account for Intellectual Capital.

### **7.13 Recommendations**

In light of the findings from this research, the following recommendations are made:

Relational capital had a significant effect on the Return on Capital Employed from the primary data and the Return on Assets from the secondary data. These results show that the loyalty of customers to an organisation is vital to its assets' growth capabilities. Clear and proper records of relational capital should be maintained by organisations. If such records are kept, the calculation of Intellectual Capital would be easy. Intellectual Capital accounting is an important component of modern-day business. Its essence should be incorporated into the day-to-day running of every business sector including the insurance industry.

Insurance companies should recognise the Intellectual Capital capabilities of their workforce as embedded in their Structural Capital. This would enable them to articulate such capabilities

for proper accounting. For the full benefit of their intellectual capital to be derived by companies, measurement and recording of intellectual capital must be incorporated into the business accounting system. It is only by doing this that an organisation will be able to recognise and realise the value and contribution of its intellectual capital. Results from this research indicated that structural capital had significant effects on Return on Capital Employed and Return on Assets. Structural Capital as represented by trademarks, patents, company culture and values, formulas, and others has a strategic importance in a company's value creation.

Expenditures on human capital should be capitalised. Human capital is made up of employee costs such as training and staff development. Secondary data results obtained from this work confirmed that human capital had a significant effect on the Return on Capital Employed and Return on Assets. The significance of this result is that Value Added Human capital, which is a prime Intellectual Capital indicator does positively influence a company's financial performance and extension of its value creation. According to Oloke, E. (2020, p.40) "It may be worthwhile to consider whether or not local reporting regulation and guidelines should support reporting Intellectual Capital in listed insurance companies' statement of financial position. This would act as a way of updating the market about the extent to which this form of capital represents an important part of a company's value in Nigeria. For example, there is a mandatory management report in Germany, regulated by the German Accounting standard GAS15 (GASC, 2010a). The German local accounting standard is part of the German reporting regulation for listed companies with limited liability and requires additional narrative information on corporate performance and value creation." This is consistent with Bukh P. N. (2002, p.50) who wrote "For Intellectual Capital to be perceived as relevant from a capital market perspective, the information should be disclosed as an integral part of a framework illuminating the value creation processes of the firm"

An accounting standard for Intellectual Capital should be included in International Financial Reporting Standards (IFRS). Adequate recognition should be given to the efforts of employees who propel the growth of their organisations through their intellectual efforts. Training programmes that will upgrade employees' value should be encouraged in the workplace. Intellectual Capital components should be included in the annual reports of companies. This would enable employees, investors, management and other users of accounting information to appreciate the essence of intellectual capital accounting.

## **7.14 Research Limitations and Restrictions**

### **7.14.1 Research Limitations**

The covid-19 restrictions and guidelines had a significant impact and resulted in changes in the strategy of the research. Travel restrictions due to the pandemic posed a challenge for the researcher. There were delays in the fieldwork to administer the questionnaires and interviews. Therefore, the use of the Internet and electronic means of research support were adopted in addition to data collection.

The following are step-by-step challenges as experienced in the collection of primary data (questionnaires administration and interview sessions) for this research:

1. Initial experience suggested that most staff of these insurance companies would not be able to do justice to the research questions and the interview except the senior employees at the managerial level in the human resource or accounts departments, or the portfolio managers.
2. Gaining access to the senior managers and personnel in the accounts and human resources departments of the insurance companies to be interviewed was quite a challenge as they

gave excuses such as being too busy with their companies' books and report preparation for management decisions.

3. The staff of the insurance companies were always under pressure to meet management targets hence they do not want to attend to anything that is not work-related.
4. The personnel are only located at the head office of these insurance companies; hence, the researcher had to contact the head office to speak to a competent member of staff that could attend to the questionnaires and interview.
5. The head offices of these insurance companies are scattered across Lagos state thus involving huge logistics to reach them physically because, as previously mentioned, the accounts and human resource departments are always located in the head office.
6. Significant reluctance and delay were experienced regarding online questionnaires; hence, hard copies of questionnaires and interviews document were adopted for administration. The researcher attended twice and also nominated a support agent to retrieve questionnaires.
7. Questionnaires distributed physically took time to be returned as the respondents took several days or weeks to respond to the questionnaires and return them accordingly
8. Most times, several phone calls, WhatsApp messages and contact messages as follow-ups were made to the respondents to hasten and increase the respondents' timescale of return.
9. Several weeks of delays were experienced by the questionnaire respondents and interviewees leading to huge frustrations being encountered by the researcher. The frustration resulted in having to go back on several occasions or calling and texting multiple times for weeks before the administered questionnaires would eventually be attended to and returned. The respondents avoided email or other forms of electronic retrieval. Sometimes respondents kept the researcher up until 11 pm UK time for the interview.

10. Emails were sent to the official email address of these organisations seeking a research interview session with a senior manager of the company, but no response was received except for the computer-generated auto-reply message that reads “Thank you for contacting us, your email is been attended to.”
11. At the time of this data collection, it became obvious that some of these insurance companies were undergoing a merger or acquisition or rebranding, so they were less interested in academic research and/or surveys from any class of candidate from the university. They saw this as less of an interest to them and they could not make time for it then. This was a huge challenge to the research data collection phase as these contacts saw this as a distraction to their corporate priority and targets.
12. At this time of merger or rebranding, someone coming with research questionnaires and requesting an interview session seemed to them like a secret investigator into their operations despite all the ethical assurances provided. Therefore, they technically declined all forms of such interview requests to manage their company’s information that is leaked out to the public.
13. Some companies had already rebranded and even relocated, so locating them became difficult as the list of addresses downloaded showed a name and address, which had changed. This is because after completing the merger or rebranding or relocation, companies rarely go back to update their information on the regulatory websites or their websites.
14. There was a high level of hesitancy among the personnel of the insurance companies towards responding to the questionnaires and the interviews.

Concerning the questionnaires, some complained that there were too many questions and so they would not have time to complete the questionnaire. They claimed to be very busy running after their weekly or monthly targets for the company. This led to several weeks



of delay in responding to the questionnaires. However, the majority of respondents were able to complete the questionnaires at their convenient time. On the whole, 141 questionnaires were retrieved.

Regarding the interview, the hesitancy was even higher. Once the staff heard the word “interview”, they showed high hesitance towards granting it. They claimed not to have the time to sit down and respond orally to research questions. Even when they eventually agreed to be part of the interview session, it took several rescheduled appointments to get respondents to partake in the session. A high rate of refusal was experienced during the questionnaires’ administration and interview solicitation as well. Some insurance companies outrightly declined to grant interviews and fill questionnaires right at the front desk. Receptionists usually are the first point of contact of the organisation. At the reception desk, some companies agreed to fill in and return the questionnaires but declined to grant an interview. Some of the reasons given by the front desk officers or even the managers were;

- a) It is against the management or company’s policy except the chief executive officer approves such.
- b) Only the chief executive officer can grant interviews and he/she is indisposed now.
- c) The front desk staff never gives the contact of the HR or manager for the interview; hence, follow-up becomes difficult as one can only follow up with the front desk officers. This usually delays and frustrates the process as the front desk officers say they cannot pressure their superior to attend to what they are not interested in.

- d) “We are rebranding or merging so we cannot grant an interview right now until we know the position of the new management on such”
  - e) Some say they are running after achieving their weekly or monthly target for the organisation and so cannot take any time out to attend to questionnaires or interviews.
15. Huge sums of money and time were spent to return several times to pick up the completed questionnaires from the respondents’ offices. This is because the questionnaires were never filled in and returned at the time designated. The researcher had to rely on nominated helpers to pick up the questionnaires due to logistical challenges in Lagos. In some instances, these data support assistants had to go back several times to the office seeking to pick up the completed questionnaires before they were finally filled in and returned.
16. Even with all these efforts, some questionnaires administered were never filled in nor returned. Similarly, some prospective interviews were never granted or conducted within the time limit, due to multiple postponements.
17. In some cases, Zoom interview meetings were conducted outside of official working hours as late as 7 pm to 11 pm Nigeria time. Some managers had to attend interviews after work when they were less busy.

### **7.14.2 Further Limitations**

This research has limitations, which certainly affect the results such as: (1) the analysis of Human Capital on personnel expenses is less specific; (2) the components of the calculation of Intellectual Capital are too diverse. Future researchers are also expected to add more variables or samples to reduce anomalies that may occur in the calculation of Intellectual Capital.

The limitations of the research are discussed here to establish the boundaries for the interpretation of the results and findings together with their application to theory and practice as discussed above. In addition, research limitations help to specify areas for future research. This research used a mixed-methods approach and thus limitations may be appropriate to each phase of the research. First, every research that includes a questionnaire survey is subject to a certain degree of measurement error (Gay and Diehl, 1992, p.22). The collection of data based entirely on a cross-sectional, self-report survey methodology is a limitation of the present research since problems associated with common method variance – “the conflation of response-response correlations when all data is derived from the same source” (Brewerton & Millward, 2001, p.288) may arise. For, example an overstatement of relationships among the variables studied may be attributed to the use of a single source of data, such as self-report questionnaires. Rousseau (1990, p.390) advocated the use of multiple methods as a means to address the problem of common method variance. Future research might consider the use of objective measures of performance to control for common method variance. Second, as with most research, other possible variables were not examined and may have exogenous effects on the relationships researched.

This research focused on the impact of intangible resources on the dependent variable of business performance. There is a possibility that the explained variance offered by each independent variable is biased and or inflated because of the omission of the impact of tangible resources (Galbreath and Galvin 2004). Therefore, it would be thought-provoking to investigate models that include both tangible and intangible assets of an insurance company. (3), the survey data relied on perceptual evaluation of the insurance companies’ performance. Though unbiased measures are more desirable, perceptual measures are regularly used in research. While the perceptions of managers on performance were defended as a strength of

this research, facilitating consistency, availability, generalisability, and perhaps accuracy of the data used, obvious limitations rest with this approach as well. It is conceivable that managers did not respond to the performance questions truthfully, particularly if they believed they would somehow be rewarded or punished for the survey findings. Therefore, additional work is needed to test how closely perceptions of performance correlate with actual performance in this sample. In addition, future researchers might consider defining the individual performance factors more specifically than was done in this research to improve more accurate and specific performance information from respondents.

The current research is cross-sectional; it cannot purport to provide a causal test of relationships. “Causal inferences are tougher with observed studies where the following conditions apply: (a) association, (b) temporal precedence, and (c) isolation” (Gefen et al., 2000, p.56). Correlation implies association but is not enough. Research has shown that no other event has happened between the cause-and-effect events (Gefen et al., 2000, p.57).

Finally, a strength of the current research is the use of qualitative case studies which enriched the quantifiable information provided by the questionnaires report combined with the multiple source data.

It is also important to recognise that there may be some issues of researcher biases, i.e., the different interpretations which can be placed on reality by the individual researcher. However, particular techniques mentioned in the research methodology should aid in reducing such biases. Furthermore, the rigorous case study protocol followed in this thesis greatly enhanced the reliability of the case research; therefore, this provides the opportunity for other researchers to implement this case study protocol in future studies using the case study approach. As Eisenhard (1989) noted that case study research can provide rich, descriptive insights into

events and behaviours and can lead to hypotheses for testing and sometimes the development of new theories and explanatory frameworks.

In gauging financial performance, the researcher used accounting-based measurement indices such as Return on Assets, Return on Equity and Return on Capital Employed. Huselid et al. (1997, p.172) noted that accounting-based measures represent the impact of past success. The indicators are subject to numerous biases not present in market-based measurements which are considered to be a more accurate reflection of a company's financial status. The major concern with the accounting measures is that they are historical and lag behind actions that bring about results. Notwithstanding the limitations mentioned above, the current research does contribute to the understanding of strategic human resource management and especially the influence of Intellectual Capital on performance. The research also does hold implications for future research on Intellectual Capital management. The non-existence of any standard on the measurement of Intellectual Capital both in Nigeria and in other parts of the world. The first standard with some elements of resemblance to Intellectual Capital measurement in Nigeria was SAS 22 (Accounting for Research & Development Costs) which was issued in June 2006 (Mahamad & Salman, 2011). This was followed in 2011 by SAS 31 on intangible assets accounting. It should be noted that SAS 31 was not strictly made to take care of Intellectual Capital accounting. However, the standard included some costs which are components of Intellectual Capital. This implies that Intellectual Capital cannot be legally reported in the books of any company in Nigeria. There is also the difficulty in quantifying the expertise, knowledge and competence of the human resource since humans are not physical assets. The monetary unit assumption of accounting does not allow accountants to measure the value of a company's employees in terms of their expertise, competence, discipline and knowledge in their Financial Reports. For this reason, such values are difficult to quantify in monetary units

or terms. Though the secondary data from where a small percentage of information necessary for this research work were obtained readily, the willingness of the insurance companies to give the required data and information was very tedious to obtain.

### **7.15 Further research suggestions**

The findings and results of this research offer some basis for further discussions as they indicate that further explicit requirements, and particularly recommendations on individual Intellectual Capital components, may encourage corporate Intellectual Capital reporting.

Future research should include insurance brokers and unlisted insurance companies together with the listed insurance companies. The need to develop a better understanding of the results suggests avenues for future research that are worthwhile. First, Becker and Gerhart (1996) advocated that broader, more qualitative methods are needed to study the phenomenon of human resource management utilising multiple sources of information and respondents. Thus, future studies should take into account more respondents to avoid potential biases that arise from key informant methodology. “In addition, more sources of information available to financial investors regarding company intangibles investment policies including narratives disclosures might be explored, thus adopting a broader mixed methods perspective.” Forte et al. (2017, p.727).

The research examined the impact of Return on Assets, Return on Equity, Return on Capital Employed, Market Value and Future Growth Value on research variables. It may be useful for future researchers to re-examine this further by using other market-based measures such as Tobin Q and share price.

The period of research should extend beyond six years, and perhaps longitudinal research. This work covered a period when the insurance industry in Nigeria was undergoing serious stock market challenges including the covid-19 period. Therefore, research in times of normal stock market trading is suggested. It is hoped the recognition of Intellectual Capital reporting by listed insurance companies would enhance the true value of the listed insurance companies in Nigeria's Abuja and Lagos stock exchanges.

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## **APPENDICES**

### **Appendix 1 RESEARCH ETHICAL APPROVAL LETTER**

Postgrad Research

To:

- emmanuel@stankelly.com; Emmanuel Oloke (1715318)

Cc:

- Rexon Nting; Olusoyi Ashaye; Jill Venus; John-Paul Okeke;
- London Student Services

Mon 12/10/2020 11:16

Dear Emmanuel,

I am pleased to confirm that the submission of the Ethical Approval on your research 'Exploring The Relevance of Intellectual Capital Recognition in the Financial statements

of listed Insurance companies in Abuja and Lagos Cities of Nigeria' has been APPROVED by the University's Ethics Committee.

Please ensure that you are aware of, and use, the University's Research Data Management Policy and the extensive resources on the University's Research Data Management web pages (<http://uwtsd.ac.uk/library/research-data-management/>).

Please do not hesitate to contact the office should you require any further information on this matter.

Kind regards

**Steve Davies**



**Swyddfa Academaidd** (Graddau Ymchwil Ôl-raddedig) / Academic Office (Postgraduate Research)

**Campws Caerfyrddin** / Carmarthen Campus

**SA31 3EP**

**Ext: 4464**

[steven.davies@uwtsd.ac.uk](mailto:steven.davies@uwtsd.ac.uk)

**Appendix 2a - Copy of Email Response from Mary Adams**

Mary Adams <adams@smarter-companies.com>

To:

Emmanuel Oloke (1715318)

Cc:

- adams@i-capitaladvisors.com;
- Emmanuel Oloke <Emmanuel@stankelly.com>

Mon 15/08/2022 01:57

S-C Value Creation Worksheet v1.3 with instructions.pdf

SC Brief - Integrated Value Creation Part 1.pdf

2 attachments (1 MB)  Save all to OneDrive - University of Wales Trinity Saint David  Download all

You don't often get email from adams@smarter-companies.com. [Learn why this is important](#)

**RHYBUDD:** Deilliodd yr e-bost hwn o du allan i system E-bost Prifysgol Cymru Y Drindod Dewi Sant. Peidiwch ag ateb, na chlicio ar ddolenni nac agor atodiadau oni bai eich bod yn adnabod cyfeiriad e-bost yr anfonwr ac yn gwybod bod y cynnwys yn ddiogel.

**WARNING:** This email originated from outside University of Wales Trinity Saint David's Email System. Do not reply, click links or open attachments unless you recognise the sender's email address and know the content is safe.

Hi Emmanuel - Always glad to meet people working to advance these ideas!

The concept of business recipe came from a tool that I used to license called [IC Rating](#) created by Leif Edvinsson. The tool was acquired by a Japanese firm and later withdrawn from the market.

Over time, I started using an alternate phrase, [strategic capital](#). The attached inventory document will give you an idea of how I had been measuring the capitals in client engagements: first creating an IC inventory for the client then asking stakeholders whether that aspect of the company's capitals was meeting their expectations.

I broadened my thinking with the introduction of the integrated reporting and thinking principles now being adopted by IFRS. The attached white paper will give you a sense of how I saw the models fitting together (see especially the figure on p 5). In this view, strategic capital makes even more sense because it aligns with (but goes beyond) the governance factors from the ESG/sustainability movement. In terms of what should be measured, please see the figure on p15.

For the past year, I've been working with a software company, [Insights7](#), to develop a platform to bring all these kinds of data together. We've incorporated strategic capital into our model. We're just getting started in the ESG space so don't have too much market feedback on this point yet. By the way, my co-founder convinced me to include human capital as a sub-category of relationship capital (other subcategories are customers, suppliers, community, media); this gets around the sensitivity of the term human capital. It's a pretty good improvement.

Hope this helps. Please feel free to ask more questions. Best, Mary

□

EO

**Appendix 2b – Copy of Email to Mary Adams**

Emmanuel Oloke (1715318)

To:

• □  
adams@i-capitaladvisors.com

Cc:

• □  
Emmanuel Oloke <Emmanuel@stankelly.com>  
Sat 13/08/2022 23:57

Dear Mary Adams

I am a Doctoral student from University of Wales Trinity Saint David London Campus UK. I am researching into Intellectual capital and its relevance and recognition in the financial statements of quoted Insurance companies in Nigeria.

I am writing to you because you are one of the renowned world experts on Intangible or intellectual capital. You have indicated "Business Recipe" as one of the components of Intellectual capital together with Human capital, Structural capital, and Relational capital. It makes a lot of sense to have the business recipe as one of it.

I have read extensively on extant literatures, but I have not seen the fourth component "Business recipe" included in Intellectual capital literature written by most authors.

Please kindly give me some clarity on business recipe and what are the indices for measurement or key performance indicator to assign value to this component.

I shall be most grateful for your kind help and assistance to inform my research further.

Thank you for your cooperation in anticipation.

Kind Regards

Emmanuel Oloke  
Doctoral Student

**Appendix 3: Field survey permission request  
Researcher's Introductory Letter**

To Whom It May Concern

25th April 2022.

Dear Sir/Madam,

Re: Exploring the relevance of Intellectual capital recognition in the financial statements of listed insurance companies in Nigeria.

I am a doctoral researcher at the University of Wales Trinity Saint David.(UWTSD), London Campus, UK.

As part of the requirement for the award of the doctorate degree, I am expected to undertake a research study. This questionnaire is aimed at collecting data on the relevance of intellectual capital recognition on the financial statements of Listed insurance companies in Abuja and Lagos Stock Exchanges.

Your participation in this study is entirely voluntary and you can skip questions or may withdraw at any time without any consequence. The questionnaire is anonymous; thus, researcher will not collect any identifiable information of you. The information you

provide will be used for research purposes only. Confidentiality and anonymity will be maintained throughout the research. UWTSD Research Ethics Committee has approved the ethical aspects of this study. If you have any further questions about this research, you may contact me at [emmanueloloke60@gmail.com](mailto:emmanueloloke60@gmail.com)

The completion and return of the form confirm your understanding about the nature, risks and confidentiality of the study and your consent to voluntarily participate in this study.

The research results will be used for academic purposes only and will be treated with utmost confidentiality. No one, except the institution will have access to these records.

This questionnaire comprises four (11) sections. Please answer ALL the questions by clicking the appropriate field that best describes your response. It will take less than 10 minutes to complete this questionnaire.

Thank you for your participation in advance.

Yours sincerely,

Emmanuel Oloke

Doctoral Researcher

E-mail: [emmanueloloke60@gmail.com](mailto:emmanueloloke60@gmail.com)

Mobile Nos. +44 778 744 6593

#### **Appendix 4: Field survey Full Questionnaire**

##### **SECTION A:**

Demographical information of the respondent:

Please tick the appropriate answer and specify where necessary.

1. Gender:

(a) Male (b) Female (c) No comment

2. Age group (in years).

(a) 18-28      (b) 29-39      (c) 40-49      (d) 50- 60      (e) 60 and above.

3. Highest Educational Qualification

(a) GCE/WASCE/SSCE (b) OND/NCE (c) HND (d) BSc/BA (e) MSc/MBA (f) PhD/DBA

(g) Others (Please specify)

4. Professional Qualification if any:

(a) ACA (b) CITN (c) ANAN (d) CIBN (e) NIM (f) Others (please specify).

5. Position in the organisation.

(a) Junior staff (b) Senior staff (c) Manager (d) Non-executive Director (d) Executive Director (e) MD/CEO (f) Others (Please specify).....

6. How many years have you worked with this organisation?

(a) Less than 6 months (b) More than 6 months to 5 years (c) 6 years to 10 years

(d) 11 years to 20 years (e) 21 years to 30 years (f) 30 years and above

7. Number of Employees in your company

(a) less 100 (b) 101-500 (c) 501 -800 (d) 801 – 1000 ( e ) more than 1000

## **SECTION B:**

### **Intellectual Capital Questionnaire**

This questionnaire relates to the relevance of Intellectual capital and performance within your insurance company. The questions cover areas of investors relationship, financial performance, customer relations and organisational processes. As a staff of a listed insurance company, please answer the questions as accurately as possible by placing a tick in the box to indicate the answer that corresponds most closely to your views.



Use the scale where 1= not at all, 2 = to a small extent, 3= to a moderate extent, 4= to a large extent, and 5= to a very large extent

No.	Questions	1	2	3	4	5
	<b>Value Added Relational capital: (VARE)</b>					
1	Our insurance company tries to offer customers the best service in the industry					
2	Our company business decisions are driven by customer satisfaction					
3	Our company maintains long-standing relationships with a number of important suppliers and trade partners					
4	Our insurance company maintains good relationships with all civic groups and persons within our community					
5	Our company listens and responds to customer's complaints					
6	Customers are generally satisfied with our insurance services					
7	Our customers are loyal to our insurance company					
8	Our customers always like new insurance products or services we introduced to the market					

9	Our insurance company is heavily customer and market focused					
10	Managers in our company are clear about the market target and customer profiles					
11	We do care about what our customers and investors desire from us					
12	Our brand brings a lot of new customers and investors yearly					
13	Our insurance services and products have a higher percentage of take-up and yearly renewals than our competitors					
14	Our brand is one of the most recognised in the insurance industry					
15	Our company prides itself on being a market-oriented leader.					
16	The loyalty of our customers is comparatively higher in our company than in other companies in the industry.					
17	As a market leader, my company's earned premium increases every year and this enhances profitability					
18	We feel confident that our customers will continue to do business with us.					

	<b>Value Added Human Capital (VAHU)</b>					
19	Human Capital as a key performance indicator will motivate the managers and enhance profitability					
20	The inclusion of Human capital in the financial statements will encourage investment in the insurance industry and thereby increase profitability.					
21	Personal skills and talents are recognised and rewarded in my company and this encourages the managers to enhance the company's financial growth.					
22	Core competencies are highly valued by management in my organisation because they enhance the company's value.					
23	Challenging assignments performed by the managers are usually recorded with success within my organisation.					
24	Human Capital costs should be capitalised in the financial statements of insurance companies to show their true financial position.					
	<b>Value Added Structural Capital (VAST)</b>					

25	Management always initiates special products“ to our customers“ satisfaction.					
26	Brands are valued and recognised as essential elements in the growth of my company.					
27	Our innovations include constant review and renewal of products“ life-cycle which increases our value chain.					
28	Company trademarks and patents are highly valued and updated to our clients“ satisfaction.					
29	Our management style emphasises on organisational culture for corporate growth.					
30	Your company’s concept of culture (e.g concepts of values, ways of thinking and behaviour patterns shared in a specific group) contains valuable ideas and business methods					
31	Investors care about intangible capital and intellectual capital information, R&D, software’s cost , patents, brands as they have a positive relations with share prices					

	<b>Value Added Business Recipe Capital (VABU)</b>					
32	A good amount of information and knowledge is incorporated in your company's management systems, organisational structure and business process					
33	The managers apply knowledge from other sections of our insurance company to cope with business challenges caused by a specific department					
34	Your company culture such as concepts of values, ways of thinking and behaviour patterns shared in a specific group contains valuable ideas and business methods					
35	Your insurance company has a system to reflect opinions from other departments and clients when new products and services are developed and such a system has been applied					
36	Your company has intranet that facilitates sharing of information among employees and access information that facilitates their work					

37	The system allow information sharing and cooperation across different parts of the company					
38	Management apply knowledge from other sections to cope with business problems caused by a specific section					
39	Managers feel obliged to help their colleagues in work related matter					
40	A great deal of knowledge and information is incorporated in your organisational structure, management system and business process.					
41	Intellectual capital and corporate governance are connected focusing on pattern of stakeholder's influence that affect management decision making					
42	Engaging a high quality auditor may enhance intellectual capital recognition in order to reduce information asymmetry					
43	Auditors influence the level of company voluntary disclosure which enhances investors' confidence					
	<b>Economic Value Added (EVA)</b>					
44	Productivity of intellectual capital is related to EVA indicators					

45	Performance adjustments to solve problems such as trying to develop the accounting of intangibles and long term investments that lacks a high degree of certainty					
46	Using EVA in measuring intellectual capital is arguable when applied to quantifying the value of intangible assets.					
47	Management accounting information (economic and non-economic) including intellectual capital are useful for implementing their company's strategies					
48	Financial statements with intellectual capital information are viewed as a communicating device used by companies to communicate their information to various stakeholders especially investors					
	<b>Market Value Added (MVA)</b>					
49	Financial markets are more accurate in their valuation of companies					
50	Any excess valuation of a company over its book value will be the correct valuation of the company's intellectual assets					
51	Awareness of the importance and relevance of disclosing and recognition of					

	intellectual capital information is growing as it increases a company's profitability					
52	Accounting practices and standards do not specify the recognition criteria of intellectual capital, its measurement and disclosure, rendering it difficult to communicate useful intellectual capital information to users and investors.					
53	Lack of accounting standard lead to a reduction in value relevance of information in financial statements					
	<b>Future Growth Value (FGV)</b>					
54	Intellectual capital is a significant factor that assists companies to create value and sustain future strategic competitive advantage					
55	Value of brands are more visible to current investors and potential investors					
56	Lack of intellectual capital recognition company run the risk of the undervalued companies being subject to hostile takeovers					
57	Your company's recognition plan and strategy are formed by the perception of					



	how capital market participants understand value relevant information					
	<b>Return on Equity (ROE)</b>					
58	Where the Returns on Investment (ROI) from managers are not adequate, investors may likely divest.					
59	As a measure of managers' financial management in a company, Return on Equity adequately indicates the rewards arising from such investments					
60	Insufficient investment may not necessarily result into insufficient returns where strategic investment plans are employed by the management.					
61	Equity capital must be combined with borrowed capital by the managers to maximise returns.					
62	Networking by the managers has greatly impacted on our profitability.					
	<b>Return on Assets (ROA)</b>					
63	Management need not border about returns as long as adequate tangible assets have been invested in the company.					

64	Prudent financial management by managers brings about high financial performance.					
65	A company's financial growth may not necessarily be reflected in the fixed asset growth.					
	<b>Return on Capital Employed (ROCE)</b>					
66	The value of a company's investment is increased by the skilful use of resources by the management.					
67	Investors' capital contributions to the business must be adequately employed by the management for profit maximisation.					
68	The proportion of a management's input has no direct bearing on the capital employed in the organisation.					
69	Investment in intellectual capital in my company is significantly influenced by its profitability.					
70	Investors' appraisals of management's past financial performances are used as yardsticks for their future investments.					
71	High return on capital employed is an evidence of the financial prudence of managers in my organisation.					

### **Appendix 5a: Interview Protocol**

1. Pre-test interview questions
2. Make appointment to see the respective interviewee
3. Introduce the objectives of the research
4. Discuss ethical and confidentiality issues
5. Request permission to record the interview

### **Appendix 5b: Interview Guide**

Yin (2003, p.34) identified five levels of questions in conducting a case study.

Level 1 – Questions asked of specific interviewees

Level 2- Questions asked of the individual case (questions in the case study protocol to be answered by the researcher)

Level 3- Questions asked of the pattern of finding across multiple cases

Level 4- Questions asked of an entire study

Level 5- normative questions about policy recommendations and conclusions, going beyond the narrow scope of study.

6. Interview questions – insurance managers, insurance brokers and stock brokers
7. Make appointment to see the respective interviewee

8. Introduce the objectives of the research
9. Discuss ethical and confidentiality issues
10. Request permission to record the interview

#### **Appendix 5c: Interview Questions**

1. What impact would Intellectual Capital recognition have on the value of listed Insurance companies in the Abuja and Lagos Stock Exchanges?
2. Are there any facets of Intellectual Capital recognised in financial statements and or annual reports of listed insurance companies in Abuja and Lagos stock exchanges?
3. What is the role of Intellectual Capital in the value creation of listed Insurance companies in the Abuja and Lagos stock market?
4. To what extent is the non-recognition of intellectual capital affecting the value of listed insurance companies in Abuja and Lagos
5. Would the recognition of intellectual capital influence the value of shares of insurance companies in the stock exchanges of Nigeria?
6. What components of the intellectual capital constructs are captured in the internal reports of management in your company?
7. Do managers view measurement of Intellectual Capital as something that will assist them operationally by augmenting decisions relating to staffing, supplier and customer relationships?
8. What mechanisms are implemented within your company through which Intellectual Capital indices are integrated in order to develop values?
9. What is the impact of investors' interpretation and relevance of intellectual capital information within the company?

10. How do managers determine the significance of the contributions of the various intellectual capital components to the overall performance of a company?
11. A good amount of information and knowledge is incorporated in your company management systems, organisational structure and business process
12. Prudent financial management by managers brings about high financial performance.

## **Appendix 6: Transcription of the interview data**

### **Appendix 6a: Responses from Insurance company D Plc**

**Question 1:**           **What impact would intellectual capital recognition have on the value of listed insurance companies in the Abuja and Lagos stock exchanges?**

**Answer:**               On the financial statement, which speaks to performance and asset base of the company, recognising intellectual capital would go a long way to signify the value therein in those respective companies. To start with, looking at the definition of intellectual capital, it speaks to intangible value drivers in an organisation, which include human capital, although, it still has to be accessed. But generally, it is assumed that when you have human capital added to the balance sheet, you get to know the economic net worth of the entity in question.

Another aspect is the research: The insurance company have a unit that invests in product design and market segmentation for product development, which entitles that company to future cash flows, which speaks to future value. So, having a valuation of those activities reflecting on the financial statements speaks to value in those companies.

Incorporating the recognition of intellectual capital in the books of Nigerian insurance companies will give a true value therein. The fact that some of these assets had to be subjected to regulatory limitation and review will also add more value. When you have such, you will not expect that they have the same level of investment or valuation of intellectual capital, but at least it will stand some companies out in terms of the value in those companies, which could be people driven, research driven or other intangible asset.

**Question 2:** **Are there any facets of intellectual capital recognised in financial statements and/or annual reports of listed insurance companies in Abuja and Lagos Stock exchanges?**

**Answer:** Generally, research and development seem to be the most pronounced for now, that is if any. So, some do the research, but do not put a value to it. So, as at present, it is very hard to see. Except you go into other industries like pharmaceutical, telecom, etc., in the insurance company, I have not really seen intellectual capital being incorporated on the financial report in Nigeria.

**Question 3:** **What is the role of intellectual capital in the value creation of listed insurance companies in the Abuja and Lagos stock markets?**

**Answer:** I have spoken a bit about it; what I was trying to emphasise is the future cash flow or benefit of those assets. Human capital help reinsure the going concern of the company. Research and development go a long way to tell you how well the company is planning toward having sustainable revenue in the future, which speaks to the future

performance that radiates around its position. So, if the present value of all these future benefits are reflected on the financial statement, it will speak more, showing the net worth of the company; especially when you talk about economic net worth.

**Question 4:** **To what extent does the non-recognition of intellectual capacity affect the value of listed insurance companies in Abuja and Lagos?**

**Answer:** Having had experience of private equity movement, I mean due diligence activities, in respect to acquisitions and mergers. I will give an example, the acquisition of the likes of Ensure by Allianz, Sanlam took over FBN insurance, those two companies had value embedded in the staff acquired. In the knowledge base of those staff and the extent which they have strategically planned and positioned themselves for future advantage. So, all these ought to have been considered in the valuation of those companies for the respective acquisitions.

So, it speaks to the fact that if that was not considered, it is not on the balance sheet, they are missing the value and such values could have been taken off by the acquirer; the target companies will miss out of such values.

**Question 5:** **Would the recognition of intellectual capital influence the value of shares of insurance companies in the stock exchange of Nigeria?**

**Answer:** To answer this question, you have to look into what actually drives the value, that is the share prices. So, it is more of information; when you talk of information driving prices, you talk about how permeable is that information in the market and how well is it flowing; is it private

information or public material information? It talks about availability and materiality.

Intellectual capital could be material and can materially dwindle market views about a company. Where the market forces, which are actually people, are aware that the people in a company are value-adding. It speaks to losing a key man, which can drive prices down. That when the market knows that a leading person of your company resigns, it speaks volumes and then your prices could be affected. So the question is, is that information material or public? Immediately it gets public, whereas it is private, and some could use that information to even get value. So it becomes a half/half driving factor.

Researching product design and market views for the industry, we have specific sector analysts, and the information they give out there speaks volumes. You can imagine an analyst speaking to the fact that aside from the quantitative drivers, your loss ratio, claims ratio, return and investment etc., some other qualitative features are also considered.

**Question 6:**            **What component of the intellectual capital constructs are captured in the internal report of management in your company?**

**Answer:**            I would say this is more of the management discussion analysis. A portion of it will speak to human capital, people in the management, what they have in view, what they are doing presently, etc. So most insurance companies like ours incorporate this as much as possible; we try to put enough information to get stakeholders and outsiders to see the value, but putting a valuation to it is what is missing.



**Question 7:** Do managers view measurement of intellectual capital as something that will assist them operationally in augmenting decisions relating to staffing, supplies and customer relations?

**Answer:** Really, companies like our have criteria for retreatment and promotion. We have authorised counterparty list, which is driven by due diligence of the counterparty. So, my supplies, lost adjusters, auditors, and anybody that offers me any service has to meet some criteria. These criteria are seen as part of what drive our value because if I make claim, I need a skilled loss adjuster, a functional reassurance to service that claim. So a good claim handling process will help a customer have a return premium; I mean, the customer will come back for the same service.

For customer relationship, we try as much as possible to ensure that the people we relate with generally are people that are ethical. The customers will appreciate the kind of people they get to meet and put a value to that; the value will not really show on the book, except that it drives in more premium and the numbers.

**Question 8:** What mechanisms are implemented within your company through which Intellectual capital indices are integrated in order to develop values?

**Answer:** I had already spoken about research development and product design research. Also, we do appraisal processes to check all counterparties to reappraise the relationship, their services and our services to our counterparties. Within the company, we appraise ourselves; the manager appraises his/her subordinate; it is a 360 appraisal process. There are

some standards required basis, among them are: your work ethics, the fact that you take your career growth personal and you deliver more value in that regard, and how well you are able to teach your colleagues to ensure sustainability of processes. All these are ways to ensure that we have valuable work team and process. We have a compliance process that ensure to comply with regulations so they don't have reputational issues that could reduce your value. This is because when you have such it, and it gets to the public, it affects your value and your share price.

Generally, the way we actually measure intellectual capital; it only entrenched in the MDA; it will just tell you it was done, and if you want to see the report like our regulators would love to, we will give them. The regulatory environment here is stringent in the sense that aside from getting to see the financials, they want to know the people behind the financials. I guess that is why you see some companies whose financial are not speaking well, but looking at the people, they seem to see some possibilities that speaks to their going concern; if not, they would have gone down.

**Question 9:                   What impact of investors' interpretation and relevance of intellectual capital information within the company?**

**Answer:**                   In the company, we recognise our stakeholders; they are both investors, regulators, customers, the government and the public. The information that goes out is well monitored; we have data security and protection processes and policies, and protection of our intellectual properties, not just protecting number of staff or leakage of internal information but

ethically driven standards to ensure information that gets to the public are fair and truthful. Our financials are published, and I can boldly tell that in all the insurance companies listed, custodians' share price is soaring, and dividends wise, we seem to be paying highest per unit. That has been maintained over the years. So, the drives the price and the information out there.

**Question 10:** **How do managers determine the significance of the contributions of the various intellectual capital components to the overall performance of a company?**

**Answer:** Value is taken very important here, and it speaks to what you bring on the table towards achieving the budget, profitability and sustainability of the company. We do not appreciate mediocrity, given that whoever we employ has to support the drive towards a good bottom-line. Also, we try to protect our value, not just ensuring we get the value. So in ensuring that what a good staff bring to the table, good assets, brand has brought together is not scattered by staff's negligence, unprofessional practices and mediocrity.

Managers are kept on their toes to not just report the numbers, but report the growth of who they manage and ensure that what they do is replicated.

**Question 11:** **A good amount of information and knowledge is incorporated into your company's management systems, organisational structures and business processes and examples if there are.**

**Answer:** We have a data-driven system, and we have data projection; all the processes within the company, however interwoven, are involved in continuous learning to match up with current demands. This is because we review processes, systems, applications and people continuously.

For the organisational structure, our structure is different from every other insurance company. Insurance companies in Nigeria are driven by the type of service, the likes of mutual, alliance etc. from their structure a team takes care of claims, and another team takes care of underwriting. But in custodian, one man talks to a particular industry, and that one man will treat both underwriting and claims and relate with the insurance team. So the model here is different, and with this experience you give to people, they get a global view of the process.

**Question 12: Prudent financial management by managers brings about high financial performance; what is your take on this?**

**Answer:** Prudence relates to getting the best at a minimal cost. So financial management speaks to how you deploy capital to generate income, and the way you get to do that brings in so many variables, both those within your control and outside your control. Prudence in that regard speaks to you identifying those outside your control, putting mitigants ahead of the risk coming from the ones outside your control and ensuring that the ones within your control are optimised. Where this is done professionally, which means it is possible you do it unprofessionally, and you actually have a target. If those targets are met within the achievable limit, then your performance should be because your mitigants

are there. Cost minimising all your resources then you should have a positive bottom line. If you do that, you should have positive underwriting profit, and the cash you get from premiums should generate good investment returns. So, having those two, the running cost should have been minimised.

**Appendix 6b: Responses from Insurance company M Plc**

**Question 1: What impact would intellectual capital recognition have on the value of listed insurance companies in Nigeria?**

**Answer:** I will want to stress the meaning of intellectual capital. It represents the effort of workers towards the growth of an organisation. We must know that the inability of firms to measure and quantify intellectual capital will pose a fundamental problem to such organisations. So, we are talking about the roles of human capital, structural capital and relational capital in every organisation. These parameters are very important in the growth of every organisation, and they are there for profit making.

**Question 2: Are there any facets of intellectual capital recognised in financial statements and/or annual reports of listed insurance companies in Abuja and Lagos Stock exchanges?**

**Answer:** Presently, the role of intellectual capital has not been properly recognised in the financial statements in the insurance company, but I believe with time, it will be.

**Question 3: What is the role of intellectual capital in the value creation of listed insurance companies in Nigeria?**

**Answer:** As mentioned earlier, intellectual capital is about the role of human capital; this means the effort of workers. The role of human capital cannot be overemphasised. Concerning the role of relational capital, it means how do you relate with your client, staff, managers, etc. all these combined will define the value an organisation will create in achieving the purpose of the organisation, which is to maximise profit and minimise cost.

**Question 4:** **To what extent does the non-recognition of intellectual capacity affect the value of listed insurance companies in Abuja and Lagos?**

**Answer:** As mentioned earlier, the role of human and relational capital cannot be overemphasised in a company, and when it is not recognised, it affects most of our production. So, the value of intellectual capital has a positive and negative impact on the value of the organisation. However, any insurance company that can harness the resources of the variables they have, it will enhance the value of the organisation.

**Question 5:** **Would the recognition of intellectual capital influence the value of shares of insurance companies in the stock exchange of Nigeria?**

**Answer:** Yes, it will. The role of insurance companies in Nigeria is vital. We talk about the dividends and earnings per share. Concerning the earnings per share, every stockholder is interested in what will be the gain or profit he/she has invested in the organisation, and when the establishment is not making profits, it falls back to the establishment, productivity, human capital, structural relationship and the relational capital of the

organisation. All these things work hand in hand; none can be left behind.

**Question 6: What component of the intellectual capital constructs are captured in the internal report of management in your company?**

**Answer:** We talk about the impact on human capital because most of the time, I emphasis more on human capital because it is our major resources. The operations such as the ICT and the productivity in an organisation, these components gathered together will lead to the productivity and profitability of the organisation.

**Question 7: Do managers view measurement of intellectual capital as something that will assist them operationally in augmenting decisions relating to staffing, supplies and customer relations?**

**Answer:** In my company, the managers have a way of measuring the performance of the human resource, operations and assets that we have. When they are put together, you harness them towards the goal of the organisation.

**Question 8: What mechanisms are implemented within your company through which Intellectual capital indices are integrated in order to develop values?**

**Answer:** In my organisation, what we do is that we organise frequent training and retraining, both in Nigeria and outside Nigeria. We believe that when the human capital is empowered, the available resources will be properly managed and productivity will be increased. When the assets we have is improved, we will have more return on the assets, and there will be a

high return on the capital employed. So, talking about how we can harness them, we send some of our personnel for training, and we have training and retraining programmes to boost and add value to the organisation.

**Question 9:                   What impact of investors' interpretation and relevance of intellectual capital information within the company?**

**Answer:**                   Every investor wants to invest in an organisation where earnings per share can also appreciate, and the dividends per share are also visible. Every individual wants investment in a place there is productivity and profit. That is why in my company, we emphasise on human capital, and that is why we embark on training and retraining our personnel to add value to our productivity and performance.

**Question 10:               How do managers determine the significance of the contributions of the various intellectual capital components to the overall performance of a company?**

**Answer:**                   In my department, we are in marketing, and there is what we call review. When we review the performance of every department, we look at their lapses to improve on that. Every quarter, when you see what one or two other departments are going through, there would be a recommendation, which will work on how you can improve on the deficiency of such department. Some measures can be put in place on how to improve on their relationship capital and their relationship, both with their client and internal departments.



**Question 11:** A good amount of information and knowledge is incorporated into your company's management systems, organisational structures and business processes and examples if there are.

**Answer:** In this age in my company, we invest more in ICT, and we combined ICT with human capital because the world is a global village, so you can easily connect with your clients and competitors and with whatever is going on around you for information at your tips. By doing so, it will add to the value of the organisation and client.

**Question 12:** Prudent financial management by managers brings about high financial performance; what is your take on this?

**Answer:** To be prudent in every organisation is about how to harness the resources at your disposal; that is, the assets, human personnel and the customers of the organisation; so, how do you manage them to maximise the profit of the organisation? In my company, we put all those indices together and find a way to minimise our cost to maximise our profit.

**Appendix 7**  
**Unit Analysis of Past Intellectual Capital Studies**

Concepts	Dimension	Description/characteristics	Research Gap/Relevance to my study	Authors
Intellectual Capital (IC)	Historical background of		Attention focused on identification	(Brennan and Connell,200

	<p>intellectual capital</p>	<p>Intellectual capital growing awareness in both industry and academia.</p> <p>Intellectual Capital started in late 1990s with development from industry management of Intellectual capital</p> <p>History from another perspective – Human Resource accounting and human assets</p>	<p>and classification of Intellectual capital</p> <p>Intangible asset monitor, the Skandia Navigator and Value platform model etc</p> <p>Study carried out focused mainly on developed countries – companies included human assets in annual report for the first time</p>	<p>0, Marr et al, 2003) (Brooking, 1996; Sveiby, 1997; Edvinsson and Malone, 1997)</p> <p>R.G Barry (1960)</p>
	<p>The pioneer projects on Intellectual capital</p> <p>Intellectual capital information and academic interest</p>	<p>Measuring intangibles to understand and Improve Innovation Management</p> <p>Measuring Accounting Intellectual capital</p> <p>Danish Agency for Trade and industry project</p> <p>Organisation for economic cooperation and development</p> <p>Major European Intellectual capital Projects</p>	<p>MERITUM project Contributed to IC recognition and disclosure</p> <p>MAGIC project Contributed to IC disclosures</p> <p>DATI project Recognition and disclosure</p> <p>OECD project Recognition and awareness</p> <ul style="list-style-type: none"> <li>- The PRISM project (2001-2003)</li> <li>- The RICARDIS project</li> </ul>	<p>MERITUM 1998</p> <p>MAGIC 1998</p> <p>DATI 1998</p> <p>OECD 1999</p> <p>PRISM 2003</p> <p>RICARDIS 2006</p> <p>INCAS 2009</p> <p>Austrian Act 2002</p> <p>Japanese guideline 2004</p> <p>IFRSB 2004</p>

			<ul style="list-style-type: none"> <li>(2004-2006)</li> <li>- INCAS project (2006-2009)</li> <li>- Austrian University IC Act 2002</li> <li>- Japanese government's IC report guidelines 2004</li> <li>- International Accounting Standard 38 (Intangible assets- IAS 38) - 2004</li> </ul>	
Recognition of Intellectual Capital Information	Measurement of IC of listed Insurance companies in Nigeria	Using Earnings per share model focusing on performance of quoted insurance companies	This study looked EPS valuation model. Only workers of insurance company were surveyed not the investors.	Anuonye, N B 2015
	Valuation of IC and profitability in insurance market	Using Value added intellectual coefficient (VAIC) model of insurance companies in Ghana	IC study on listed and non-listed insurance in Ghana. There may a distortion in financial statements features and reports reliability	Asare et al 2017
	IC recognition and reporting South Africa	International accounting standards board conceptual framework for financial reporting and content analysis	Study was at a spot date. 40 largest listed companies in Johannesburg stock exchange. It	Cronje et al 2013

			cut across different industry.	
Intellectual Capital Disclosure	Intellectual capital components and performance	Evidence from 32 quoted companies in Nigeria	Only audited financial statements were used in relation to IC components. Investors' perception were ignored. No life data were collected	Uadiale, OM & Uwauigbe, U 2011
Intellectual Capital and Value in Financial statements	Intellectual capital and market value of listed firms	Using Tobin's Q and multi regression analysis on firms in 4 countries , Bahrain, UAE, Jordan and Egypt	Only 2 years of study. This is very short period of coverage to give a meaningful outcome. The countries have different geographical, political, business laws guiding their stock market.	Al-Sartawi et al 2019
Theories and Models of Intellectual Capital Recognition and Disclosure	IASB Conceptual framework for reporting IC in Financial statements	Theory of accounting should be modified	This study is mainly on theoretical framework and South Africa mixed industries	Cronje et al, 2013
Intellectual capital and stakeholder and legitimacy theories	Conceptual perception of Intellectual Capital value creation	The effect of intellectual capital on the financial performance of listed insurance companies on the Indonesia stock exchange. The lack of measurement metrics of intangible assets information	Though this study is relevant, it used only secondary data from the Indonesia stock exchange. No interview and survey was conducted. It only covered 10 insurance companies. Only focused on stakeholder and legitimacy theories. Other	Arifa and Ahmar 2016

			theories were ignored	
Intellectual Capital Recognition and Content analysis Valuation	Intellectual Capital effect on stock return with economic added value using content analysis	Intellectual Capital valuation of listed banking listed in the Indonesia stock exchange. Purposive sampling was applied on secondary data.	This study is mainly explanatory and applied same value model to the banks with differing variables. Only purposive sampling was applied. Other sampling methods were ignored. The quality of auditors were not mentioned.	Firmancar et al 2019
Intellectual capital reported asset value and unreported intangible	Intellectual Capital disclosure Evidence from UK accounting firms in UK	Extent and quality of voluntary Intellectual Capital recognition by professional accountancy firms. Closing the gap between reported value tangible assets and unreported value of Intellectual Capital	Sample size was very small. Study focused more on human capital. The firms sampled are not listed and financial statements not audited. No investors and external actors are allowed.	Angus Duff 2018
Intellectual Capital Accounting and Financial statements	IC accounting in the age of Integrated reporting	Furthering and sustaining the practice of accounting for Intellectual Capital.	This was a commentary on IC reviews and recognition. It is more futuristic view of 21 <sup>st</sup> century. It did not include investors/stakeholders perspectives.	Abhayawan sa et al 2019
Intellectual Capital and Annual report	Exploratory content analysis evidence of Intellectual Capital	Companies disclosure of Intellectual Capital in annual report And legitimacy theory basis	Large companies in USA. This did not include developing economies.	Parshakov ,P & Shakina, E 2020

Key Performance indicators of Intellectual Capital	Testing relationship between IC and company's performance Intellectual Capital of Africa countries	65 listed companies in Johannesburg stock exchange  Longitudinal data and world economic forum with 22 indicators	One year study. 6 industry database information. Only based on staff cost information. Did not include stakeholders. Study of Southern Africa countries, Mauritius, South Africa, Rwanda, Botswana, Morocco. No company was involved in this study.	Frier et al 2003  Driss Tsouli et al 2018
Business value creation and IC development	Analytical hierarchy process concept using focus groups and case studies	Intellectual capital indicators and business value creation in architectural firms in an emerging markets in Nigeria	This is one time spot check. No range of period covered in this study. Study covered 6 firms in 9 states out of 36 states in Nigeria. The emphasis of this research is on knowledge base innovation for the development of intellectual capital.	Kori, S A 2017
Intellectual capital and financial performance	Public's model of value added intellectual coefficient	The deficiency of the traditional book keeping value method and inability to measure the actual value of food companies in Nigeria.	Only one variable – return on assets (ROA) was used to measure the financial performance. Other variables such as return on equity, price earnings ratio, earnings per share were not ignored. The study failed to recognise the investors' perceptions. Only secondary data from the 2013	Kurfi et al 2017

			fact book of the Nigeria stock exchange was used whilst the study covered 5 years to 2014	
Factors affecting Intellectual capital	Factors affecting IC recognition and disclosure in Tehran stock exchange	Investors and capital market actors are recommended to consider financial variables such as size, profitability as factors	Large and small firms were sampled together. Most large firms have more investors and resources to engage large and reputable audit firms.	Atena, G & Mehdi, G. S 2017
Intellectual capital and Intangible assets	Human asset value accounting	Exploring the disclosure of IC in Ghana- Evidence from listed companies	Only content analysis method was used. It was not specific to any industry focus in Ghana.	Asare et al 2013
Intellectual capital and Intangible assets	Status and trend of IC recognition by companies in India	Using key words relating to Intellectual capital and Intangible assets in content analysis recognition in an emerging economy	The companies were not listed and financial statements may not have been audited. Only qualitative recognition has been used in this study.	Sharma, S & Dharmi, K 2017
Intellectual capital and efficiency	Financial performance and efficiency of financial institution in Cameroon	Impact of IC efficiency on the performance of financial institutions in Yaounde, Cameroon.	2 years of study. This may be insufficient to come to more robust valid conclusion. Investors and other stakeholders were not included. Data from National statistics office	Menjo et al , 2014
Intellectual capital and knowledge and	The static panel analysis using VAIC	The effect of IC on financial performance of Southern African development community's	13 countries out of 16 were studied over 12 years. Data focused on	Odunayo, OM & Msomi, TS 2021

Resource based view	Resource and value based views	general insurance companies.  The quality of input resources, output and outcome processes intellectual capital value transformation scheme	general insurance sector in the SADC. No life insurance was considered. Different countries would have different business regulations and stock market rules.  Creation of sustainable abnormal returns and value from their resources and creating intellectual capital statement	
Management of Intellectual capital	IC receptivity and adoption	Leveraging IC as a strategic resource for creating competitive advantage in Nigeria telecommunication companies	The companies are not listed. Therefore data may not be reliable as no audit is required. Stratified sampling method was used only. No other methods were used.	Suraj, o A & Bontis, N 2012
Intellectual capital and corporate reputation, culture	Resource base view of the firm theory	Effect of different combinations of predictor variable ( IC, corporate reputation, corporate culture on performance) of listed firms at the Nairobi Securities exchange	Only human resource department of 34 companies responded to questionnaire. Investors and analysts were excluded from sample.	Kariuki, A 2014
Intellectual capital information and decision making	Survey using Questionnaires data collection of listed companies	Relevance of intellectual capital information in understanding different user groups' perception.	This study was limited to financial managers, accountants, and loan and credit	Ghaida et al 2016



	and banks in Qatar correlation analysis		officers of the banks. It failed to look at investors' interest and perception. It combined banks and companies in the study, this would not demonstrate level playing field in their respective basis of financial statements preparation	
Intellectual capital and Sustainable development goals (SDGs)	Intellectual capital initiative and Intangibles	The futuristic view of Intellectual capital according to the United nations 2030 goals for sustainable business value creation	Factors of intellectual capital and the long term view of value creation of companies globally in the year 2030. This relates mostly to developed economies. This study relates to developing economies such as in Nigeria.	World Intellectual Capital Initiative Global (2018)
Intellectual capital and corporate reporting	International Integrated Reporting Framework	Six capitals elements of company value creation,	WICI and the IIRC focused efforts to encourage more companies on long term value creation in their communication with stakeholders. This study was more general than specific stakeholder. The investors is the focus of this research and also in Nigeria.	International integrated reporting council (IIRC 2013)

(Researcher's adapted, 2022)

**Appendix 8**  
**Questionnaire Reliability Statistics**

**1. VARE**

**Summary Reliability Statistics**

**Table 8.1: VARE Cronbach’s alpha reliability schedule**

<b>Cronbach's Alpha</b>	<b>No of Items</b>
.988	18

Table 8.1 is the Value Added Relational Capital (VARE) ‘s Cronbach’s alpha reliability summary of 0.988 which shows adequate and validated as a variable within the 18 questions on the questionnaires.

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Customers Relationship	60.55	550.273	.935	.987

VARE2	60.64	554.055	.918	.987
VARE3	60.18	551.564	.927	.987
VARE4	60.73	553.218	.812	.988
VARE5	60.36	553.255	.958	.987
VARE6	60.73	557.418	.914	.987
VARE7	60.73	553.618	.925	.987
VARE8	61.00	547.800	.907	.987
VARE9	60.45	550.873	.934	.987
VARE10	60.64	559.855	.605	.991
VARE11	60.36	556.055	.913	.987
VARE12	60.82	554.364	.969	.987
VARE13	60.73	548.818	.952	.987
VARE14	60.55	545.473	.923	.987
VARE15	60.45	548.673	.923	.987
VARE16	61.00	552.800	.965	.987
VARE17	60.64	551.255	.962	.987
VARE18	60.55	545.873	.917	.987

**Table 8.2 Item total statistics**

Table 8.2 is the reliability outcome of the individual item within the VARE variable. They all showed 0.987 indicating a good reliability score.

## 2. VAHU

### Summary Reliability Statistics

**Table 8.3 VAHU Summary reliability statistic**

Cronbach's Alpha	N of Items
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.863	6
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Table 8.3 is the summary value added human capital for 6 items. The score of 0.863 indicates a good reliability fit as it is over 0.70 which is generally acceptable as benchmark score for Cronbach alpha test.

#### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
VAHU1 9	19.09	14.691	.543	.862
VAHU2 0	18.82	12.164	.747	.826
VAHU2 1	19.09	15.891	.538	.860
VAHU2 2	18.91	13.091	.840	.806
VAHU2 3	18.91	14.291	.642	.843
VAHU2 4	18.82	15.564	.717	.838

**Table 8.4 Schedule of Individual Reliability and Validity test**

Table 8.4 represents the individual reliability and validity test for this independent variable.

The outcome ranges from 0.806 to 0.862. This is rated adequate score .

### 3. VAST Summary reliability statistics

#### Summary Reliability Statistics

**Table 8.5 VAST summary reliability score for 7 items**

bach's Alpha	N of Items
.785	7

Table 8.5 is the summary reliability score for 7 items with a score of 0.785. This is rated adequate reliability test score for this pilot research study.

#### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
VAST2 5	22.73	9.818	.489	.762
VAST2 6	21.73	9.618	.678	.728
VAST2 7	22.09	8.291	.723	.708
VAST2 8	21.64	8.455	.619	.735

VAST2 9	21.55	9.873	.611	.740
VAST3 0	22.00	11.400	.264	.798
VAST3 1	22.09	12.091	.190	.803

Table 8.6 is the seven (7) individual item reliability score of the Value Added Structural Capital which ranges from 0.708 to 0.803 with the individual deletion and variance state.

#### 4. VABU Summary reliability statistics

##### Reliability Statistics

**Table 8.7 -VABU Summary reliability statistics**

Cronbach's Alpha	N of Items
.835	12

Table 8.7 indicates summary Cronbach alpha reliability test score of 0.835 which confirms its adequacy for the pilot study positive outcome.

##### Item-Total Statistics

**Table 8.8 Reliability score of the value-added Business Recipe**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted

VABU3 2	41.45	44.873	.550	.820
VABU3 3	41.55	38.073	.736	.799
VABU3 4	41.55	48.273	.287	.835
VABU3 5	42.18	43.564	.333	.842
VABU3 6	41.09	41.291	.420	.837
VABU3 7	41.00	44.200	.730	.811
VABU3 8	41.36	44.855	.718	.814
VABU3 9	41.00	44.400	.707	.813
VABU4 0	41.36	46.855	.476	.826
VABU4 1	41.64	42.255	.355	.844
VABU4 2	41.00	43.200	.696	.810
VABU4 3	40.82	45.164	.680	.816

## 5. EVA Reliability Statistics

**Table 8.9 EVA Reliability Statistics**

Cronbach's Alpha	N of Items
.923	5

Table 8.9 is the summary reliability score for 5 items of economic value added (EVA) which is 0.923 as valid and reliable for the research.

### Item-Total Statistics

**Table 8.10: Reliability score of the Economic value-added**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
EVA44	13.55	23.073	.852	.894
EVA45	13.82	24.764	.971	.878
EVA46	14.27	28.618	.514	.956
EVA47	13.27	23.418	.851	.894
EVA48	13.45	23.073	.857	.893

## 6. MVA Reliability Statistics

### Reliability Statistics

**Table 8.11 MVA Reliability Statistics**



Cronbach's Alpha	N of Items
.806	5

Tables 8.11 is the summary of Cronbach alpha score for Market Value Added. The value is 0.806 which is a suitable outcome for the research study.

### Item-Total Statistics

**Table 8.12 Reliability score of the Market Value-Added**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
MVA49	12.91	24.291	.588	.770
MVA50	13.45	26.273	.496	.797
MVA51	12.64	25.055	.664	.751
MVA52	12.73	26.018	.514	.792
MVA53	12.64	21.455	.714	.728

The above table represents the individual market value added dependent variable with each score above 0.70.

### 7. FGV Reliability Statistics

**Table 8.13: FGV Reliability Statistics**

#### Reliability Statistics

Cronbach's Alpha	N of Items
.915	4

Table 8.13 is the reliability statistics outcome for future growth value with a score of 0.915 which is adjudged adequate for the research survey.

**Item-Total Statistics**

**Table 8.14 Reliability score of the Future Growth Value**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
FGV54	9.82	12.764	.923	.846
FGV55	9.73	14.018	.836	.879
FGV56	9.91	14.891	.844	.881
FGV57	10.91	14.491	.654	.947

Table 8.14 similarly indicates individual reliability score above 0.70. This confirms adequacy and valid for this research study.

**8. ROE Reliability Statistics**

**Reliability Statistics**

**Table 8.15 ROE Reliability Statistics**

Cronbach's Alpha	N of Items
.946	5

Table 8.15 reliability score for return on equity (ROE) for 5 items with a score of 0.946 which is a strong reliability test outcome.

**Item-Total Statistics**

**Table 8.16 Reliability score of the Return on Equity**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
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ROE58	12.82	46.364	.594	.974
ROE59	13.55	39.473	.928	.921
ROE60	13.82	38.764	.866	.931
ROE61	13.55	38.473	.945	.917
ROE62	13.18	36.764	.946	.916

The above table reports a good reliability outcome.

## 9. ROA Reliability Statistics

### Reliability Statistics

**Table 8.17 ROA Reliability Statistics**

Cronbach's Alpha	N of Items
.809	3

Return on assets reliability score of 0.809.

### Item-Total Statistics

**Table 8.18 Reliability score of the Return on Assets**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
ROA63	7.09	7.491	.595	.801
ROA64	5.73	7.618	.608	.788
ROA65	6.82	6.164	.780	.602

## 10. ROCE

### Reliability Statistics

**Table 8.19 Reliability Statistics**

Cronbach's Alpha	N of Items
.904	6

### Item-Total Statistics

**Table 8.20 Reliability score of the Return On Capital Employed**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
ROCE66	16.64	38.855	.936	.858
ROCE67	17.00	36.000	.768	.887
ROCE68	18.09	48.491	.469	.920
ROCE69	17.64	44.455	.673	.896
ROCE70	17.36	37.855	.786	.880
ROCE71	16.91	39.891	.848	.871



## Appendix 9A



# NATIONAL INSURANCE COMMISSION

**HEAD OFFICE:** Plot 1239 Ladoke Akintola Boulevard Garki II, Abuja, P.M.B. 457, Garki Abuja, Nigeria ☎ 09-8756021

**E-mail:** info@naicom.gov.ng, **Website:** www.naicom.gov.ng

**CIRCULAR NO: NAICOM/DPR/CIR/25/2019**

**Date: May 20, 2019**

**TO: ALL INSURANCE AND REINSURANCE COMPANIES**

### **MINIMUM PAID-UP SHARE CAPITAL POLICY FOR INSURANCE AND REINSURANCE COMPANIES IN NIGERIA**

1. In 2005/7, the insurance industry witnessed its last recapitalization and despite the astronomical increase in value of insured assets, consequent exposure to higher level of insured liabilities and operating cost of insurers, the same capital continued to rule in the insurance industry.
2. In the exercise of the powers conferred on the Commission by the enabling laws, the Minimum Paid-up Share Capital requirement of Insurance and Reinsurance companies in Nigeria is hereby reviewed as presented in the Table below:

#### **Minimum Paid-up Share Capital Requirement**

<b>S/No.</b>	<b>Class of Business</b>	<b>Existing Minimum Paid-up Capital (₦'Bn)</b>	<b>Revised Minimum Paid-up Capital (₦'Bn)</b>
1	LIFE	2.0	8.0
2	GENERAL	3.0	10.0
3	COMPOSITE	5.0	18
4	REINSURANCE	10.0	20.0

3. This Circular shall apply to all Insurance and Reinsurance Companies other than Takaful operators and Micro-insurance companies.

[Date]

1

Minimum Paid-up Share Capital Policy for Insurance and Reinsurance Companies

**LAGOS CONTROL OFFICE:** Alagbon, Ikoyi Road, Ikoyi, P.M.B. 80144, VI Lagos. **ENUGU ZONAL OFFICE:** No 6B Ahanonu Street, Independence Layout Enugu, Enugu State.  
**KANO ZONAL OFFICE:** No. 162, Farm Center Road, Near Marhaba Cinema, Kano. **ILORIN ZONAL OFFICE:** Federal Mortgage Bank House, Asa Dam Road, Ilorin  
**PORT-HARCOURT ZONAL OFFICE:** No 77B Evo Road, G.R.A. Phase 2, Port-Harcourt, Rivers State



**NATIONAL INSURANCE COMMISSION**

**HEAD OFFICE:** Plot 1239 Ladoke Akintola Boulevard Garki II, Abuja, P.M.B. 457, Garki Abuja, Nigeria ☎:09-8756021  
E-mail: info@naicom.gov.ng, Website: www.naicom.gov.ng

NAICOM/DPR/CIR/18/2018      23<sup>RD</sup> NOVEMBER, 2018

To All Insurance Companies

**Withdrawal of Circular on Tier Based Solvency Capital Policy for Insurance Companies in Nigeria**

Pursuant to the powers conferred by the enabling laws, the Commission hereby withdraws and cancels the Circular dated August 27, 2018 with reference number NAICOM/DAPCIR/14/2018 and titled Tier Based Solvency Capital Policy for Insurance Companies in Nigeria. This withdrawal and cancellation takes immediate effect.

**LAGOS CONTROL OFFICE:** Alagbon, Ikoyi Road, Ikoyi, P.M.B. 80144, VI Lagos. **ENUGU ZONAL OFFICE:** No 15 Ibusa Independent Layout, Enugu  
**KANO ZONAL OFFICE:** 6B Ahmadu Bello Way, Kano, **ILORIN ZONAL OFFICE:** Federal Mortgage Bank House, Asa Dam Road, Ilorin,  
**PORT HARCOURT ZONAL OFFICE:** No. 8 Ada George Road, Off NTA Ngbuobe Port Harcourt,

## Appendix 10 – List of Insurance companies in Nigeria per NAICOM website

<ul style="list-style-type: none"> <li>• <b>Name of Company</b></li> <li>• <b>Address</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Authorized Business</b></li> </ul>
<ul style="list-style-type: none"> <li>• 1</li> <li>• AIICO Insurance PLC.</li> <li>• Plot PC 12 Church Gate Street Victoria Island, Lagos</li> </ul>	<ul style="list-style-type: none"> <li>• Composite</li> </ul>
<ul style="list-style-type: none"> <li>• 2</li> <li>• AXA Mansard Insurance PLC</li> <li>• Santa Clara Court, Plot 1412 Ahmadu Bello Way, Victoria Island Lagos.</li> </ul>	<ul style="list-style-type: none"> <li>• Composite</li> </ul>
<ul style="list-style-type: none"> <li>• 3</li> <li>• Cornerstone Insurance PLC</li> <li>• 21, Water Corporation Drive, Off Ligali Ayorinde Street, Victoria Island, Lagos.</li> </ul>	<ul style="list-style-type: none"> <li>• Composite</li> </ul>
<ul style="list-style-type: none"> <li>• 4</li> <li>• Allianz Insurance Limited</li> <li>• 307 Adeola Odeku Street, Victoria Island Lagos</li> </ul>	<ul style="list-style-type: none"> <li>• Composite</li> </ul>
<ul style="list-style-type: none"> <li>• 5</li> <li>• GOLDLINK INSURANCE PLC</li> <li>• Goldlink Plaza 6 Emmanuel Street Onigbongbo Maryland. P.O.Box 5987 Marina Lagos</li> </ul>	<ul style="list-style-type: none"> <li>• Composite</li> </ul>
<ul style="list-style-type: none"> <li>• 6</li> <li>• GREAT NIGERIA INSURANCE PLC</li> <li>• Great Nigeria House. 8, Omo-osagis Street Off Awolowo Road Ikoyi SWI, Lagos.</li> </ul>	<ul style="list-style-type: none"> <li>• Composite</li> </ul>
<ul style="list-style-type: none"> <li>• 7</li> <li>• INDUSTRIAL AND GENERAL INSURANCE COMPANY PLC</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Composite</li> </ul>
<ul style="list-style-type: none"> <li>• 8</li> <li>• LASACO ASSURANCE PLC</li> <li>• 16, Acme Road Ogba, Ikeja Lagos.</li> </ul>	<ul style="list-style-type: none"> <li>• Composite</li> </ul>
<ul style="list-style-type: none"> <li>• 9</li> <li>• LEADWAY ASSURANCE COMPANY LTD</li> <li>• 121/123 Funso Williams Avenue Iponri, Lagos.</li> </ul>	<ul style="list-style-type: none"> <li>• Composite</li> </ul>



- 10
- NICON INSURANCE LTD
- NICON Plaza, Plot 242, Muhammadu Buhari Way, Central Business District, Abuja-FCT.
  - Composite
  
- 11
- NSIA INSURANCE LTD
- 3, Elsie Femi Pearse Street, Victoria Island, Lagos.
  - Composite
  
- 12
- ALLIANCE & GENERAL ASSURANCE PLC
- A&G Tower. 12 Abibu Oki street Off Marina, Lagos.
  - Composite
  
- 13
- ANCHOR INSURANCE COMPANY LTD
- Plot 5A, Ayo Jagun Street, Lekki Phase 1 Lagos.
  - General Companies
  
- 14
- CONSOLIDATED HALLMARK INSURANCE PLC
- 266 Moshood Abiola Way, Formally known Ikorodu Road, Obanikoro Lagos.
  - General Companies
  
- 15
- CUSTODIAN & ALLIED INSURANCE LIMITED
- 16A, Commercial Avenue, Sabo, Yaba, Lagos.
  - General Companies
  
- 16
- SUNU ASSURANCE PLC
- Plot 1196, Bishop Oluwole Street Victoria Island Lagos.
  - General Companies
  
- 17
- FBN GENERAL INSURANCE LIMITED
- Oasis House. 298 Ikorodu Road P.M.B 21170 Ikeja Lagos.
  - General Companies
  
- 18
- FIN INSURANCE COMPANY LTD
- No. 34 Gana Street, Maitama FCT Abuja.
  - General Companies
  
- 19
- GUINEA INSURANCE PLC
- No. 33, Ikorodu Road, Jibowu-Lagos.
  - General Companies

- 20
- INTERNATIONAL ENERGY INSURANCE PLC
- Plot 294, Jide Oki Street, Off Ligali Ayorinda, Street, Victoria Island, Lagos.
  - General Companies
  
- 21
- KBL INSURANCE LTD
- Block 138, plot 5, Gabriel Olusanya Street, Lekki- Phase 1, Lagos.
  - General Companies
  
- 22
- LAW UNION AND ROCK INSURANCE COMPANY Plc
- Law Union House, 14, Hughes Avenue, Alagbomeji, Yaba, Marina, Lagos.
  - General Companies
  
- 23
- LINKAGE ASSURANCE PLC
- Linkage Plaza, Plot 20 Block 94 Lekki-Epe Expressway P.O.Box 74175 Victoria Island.
  - General Companies
  
- 24
- MUTUAL BENEFITS ASSURANCE PLC
- Aret Adams House, 233 Ikorodu Road, Ilupeju, Victoria Island Lagos.
  - General Companies
  
- 25
- NEM INSURANCE PLC
- 199 Ikorodu Road Obanikoro Lagos.
  - General Companies
  
- 26
- NIGERIAN AGRICULTURAL INSURANCE CORPORATION
- Plot 590 Zone A.O. Central Area P.M.B 0178 Abuja.
  - General Companies
  
- 27
- OLD MUTUAL NIGERIA GENERAL INSURANCE COMPANY LIMITED
- 19A Adeola Odeku Street, Victoria Island, Lagos.
  - General Companies
  
- 28
- PRESTIGE ASSURANCE PLC
- 19, Ligali Ayorinde Street Victoria Island, P.O.Box 650 Marina Lagos.
  - General Companies
  
- 29
- REGENCY ALLIANCE INSURANCE PLC
- 2, Egun Street, Gbagada Expressway Gbagada, P.O.Box 70333 Victoria Island Lagos.
  - General Companies

- 30
- ROYAL EXCHANGE GENERAL INSURANCE CO. LTD
- New Africa House. 31 Marina Lagos.
- General Companies
  
- 31
- UNITRUST INSURANCE NIGERIA LIMITED
- Plot 105B, Ajose Adeogun Street, V/I Lagos.
- General Companies
  
- 32
- SOVEREIGN TRUST INSURANCE PLC
- 17, Adetokunbo Ademola Street, P.O.Box 74393 Victoria Island Lagos.
- General Companies
  
- 33
- STACO INSURANCE PLC
- 209 Hebert Macaulay Street Ebute Metta P.M.B 1018 Sabo Yaba Lagos.
- General Companies
  
- 34
- STERLING ASSURANCE NIGERIA LTD
- Sterling House, 284, Ikorodu Road, Lagos.
- General Companies
  
- 35
- VERITAS KAPITAL ASSURANCE PLC
- Plot 497 Abogo Largema Street Off Constitutions Avenue Central Business District  
P.O.Box 13233 Wuse Zone 3 Abuja.
- General Companies
  
- 36
- UNIVERSAL INSURANCE PLC
- No 11A, Ligali Ayorinde Street, Victoria Island Lagos.
- General Companies
  
- 37
- CORONATION INSURANCE PLC
- 50, Awolowo Road Ikoyi, P.O. Box 55508, Falomo-Ikoyi Lagos.
- General Companies
  
- 38
- ZENITH GENERAL INSURANCE COMPANY LTD
- Plot 101, Ajose Adeogun Street, P.O.Box 75315 Victoria Island Lagos.
- General Companies
  
- 39
- HEIRS INSURANCE LTD
- No 107b, Ajose Adiogun Street, VI, Lagos.
- General Companies

- 40
- AFRICAN ALLIANCE INSURANCE COMPANY LTD
- 54, Awolowo Road, Ikoyi, Lagos
- Life
  
- 41
- A.R.M LIFE PLC
- 22 Funsho Williams Avenue, Alaka, Surulere, Lagos.
- Life
  
- 42
- CAPITAL EXPRESS ASSURANCE LTD
- Capital Express House, 13 Bishop Kale Close Behind Saka Tinubu Street Off Kasamu Ekemode Street Victoria Island, Lagos.
- Life
  
- 43
- CUSTODIAN LIFE ASSURANCE LTD
- 16A, Commercial Avenue, Sabo, Yaba, Lagos.
- Life
  
- 44
- FBN INSURANCE LIMITED
- 34, Marina Street, Old NIPOST Building Lagos.
- Life
  
- 45
- MUTUAL BENEFITS LIFE ASSURANCE LTD
- Aret Adams House, 233 Ikorodu Road, Ilupeju, Lagos.
- Life
  
- 46
- OLD MUTUAL NIGERIA LIFE ASSURANCE COMPANY LIMITED
- 2nd Floor, Ecobank Building, Plot 21, Ahmadu Bello Way, Victoria Island, Lagos.
- Life
  
- 47
- ROYAL EXCHANGE PRUDENTIAL LIFE ASSURANCE PLC
- New Africa House. 31 Marina Lagos. (Registered Office)
- Life
  
- 48
- STANDARD ALLIANCE LIFE ASSURANCE LTD
- Plot 285B, Ajose Adeogun Street, Victoria Island Lagos.
- Life
  
- 49
- TANGERINE LIFE INSURANCE LTD
- 22 Funsho Williams Avenue, Alaka, Surulere, Lagos.
- Life
  
- 50
- CORONATION INSURANCE PLC

- 6, Huges Street, Alagomeji-yaba, Lagos. • Life
  
- 51
- ZENITH LIFE ASSURANCE COMPANY LTD
- Plot 280A, Ajose Adeogun Street P.o.Box 75315, Victoria Island Lagos. • Life
  
- 52
- HEIRS LIFE ASSURANCE LTD
- No 107b, Ajose Adiogun Street, VI, Lagos. • Life
  
- 53
- STANBIC IBTC INSURANCE LTD
- Wealth House Plot 1678, Olakunle Bakare Close Victoria Island Lagos. • Life
  
- 54
- ENTERPRISE LIFE ASSURANCE COMPANY NIG. LTD
- No. 46/48, Awolowo Road Southwest Ikoyi Lagos. • Life
  
- 55
- Jaiz Takaful Insurance Plc Composite
- 
  
- 56
- Noor Takaful Insurance Plc Composite
- 
  
- 57
- Salam Takaful Insurance Ltd Composite
- 
  
- 58
- Cornerstone Takaful Insurance Ltd Composite
- 
  
- 59
- CONTINENTAL REINSURANCE PLC
- St Nicholas House (8th Floor) 6 Catholic Mission Street Lagos. • Re-insurance Company
  
- 60
- NIGERIA REINSURANCE CORPORATION
- Plot 784A Herbert Macaulay Way Central Business District, Abuja.

- Re-insurance Company
- 61
- FBS REINSURANCE LTD
- 22, Dunukofia Street Area 11, Garki Abuja, F.C.T.
- Re-insurance Company
- 62
- Goxi Microinsurance (State)
- Edwards & Valerie Plaza, 107 Obafemi Awolowo Way, Ikeja, Lagos.
- Composite
- 63
- CHI Microinsurance (National)
- 5A Sawyer Crescent, Anthony, Lagos.
- Life
- 64
- Casava Microinsurance (State)
- 50 Awolowo Road, Ikoyi, Lagos
- Composite
- 65
- Shagamu Microinsurance (Unit)
- Situate 67, Ewusi Street, Makun Sagamu, Ogun State.
- Composite
- 66
- Creditstar Microinsurance Company Limited
- 3 Tinachris Street, Ejigbo, Isolo, Lagos
- Composite
- 67
- Prudent Choice Microinsurance Limited
- 6 Osifo Street, Ikoba Benin City Edo
- Composite

Source: [www.naicom.gov.ng](http://www.naicom.gov.ng)

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