AN ENTERPRISE COST MANAGEMENT CONCEPTUAL MODEL FOR STRATEGIC ALLIANCES - A CASE OF ZAMBIA OF THE TELECOMMUNICATIONS SECTOR

by

DAVID KALABA

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"If you think you can go it alone in today's global economy, you are highly mistaken."

Jack Welch, former CEO of General Electric

DECLARATION

Name: David Kalaba

Student Number: 72526467

Degree: Doctor of Business Leadership

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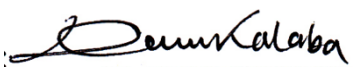

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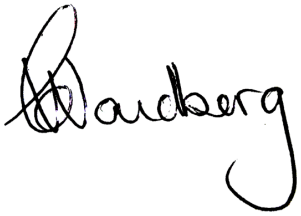

Kind regards,
Christelle Woudberg
cwoudberg@gmail.com

ND Language Practice
Member of the South African Translators 'Institute

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DEDICATIONS

To Sebastian (Dad) and Chipulu (Mum) - what a lovely couple of flowers in the heavenly garden. I miss you both!

ABSTRACT

The evolution of strategic alliances in the recent past has been a perennial phenomenon congruent with shifts in the contemporary international business environment, where inter-firm collaboration approach is a new paradigm for strategy managers. Despite the growing popularity of strategic alliances, collaborative success remains elusive for many companies with instances of premature failure attributed to poor cost management approaches, among other contributing factors. Therefore, the primary purpose of this study was to develop an enterprise cost management conceptual model that practitioners could apply in managing costs in strategic alliances to improve corporate performance, thereby improving the alliance success. The study adopted a positivist and interpretivist research philosophy with a concurrent embedded strategy of mixed-method design with evidence drawn from the eight telecoms companies in Zambia. The primary data collected was qualitative and quantitative through interviews and questionnaires. The research questions were successfully answered and propositions proved/disproven in the study with results modelled into the Enterprise Cost Management (ECM) conceptual model.

The study found that the specific main standard activities that give rise to costs were life cycles and costs drivers in strategic alliances. The focus on processes, system and decisions of capturing costs in strategic alliances determine how costs should be measured. Further, success and risk factors must be determined through strategic alliances' benefits and performance metrics to operationalise the conceptual model. The study's theoretical and practical contribution to the corpus of knowledge is broad and immense in scope by proposing an enterprise cost management conceptual model. The study makes recommendations for valuable insights for alliance managers in implementing value-creating strategies in dynamic competitive environments and improve cost management approaches thereby increasing the chance of strategic alliances success. The conceptual model can be converted into a useful software program to assist managers in effectively managing costs and be utilized as a due diligence checklist to conclude partnership agreements. This study focused on strategic alliances partnership and excluded other partnerships such as joint ventures. Future investigations into cost approaches in joint ventures could be explored.

Keywords: Collaboration, Cost Approaches, Life Cycles, Enterprise Cost Management, Performance Metrics, Projects, Strategic Alliances and Telecommunications Sector.

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ACRONYMS AND ABBREVIATIONS

ABC	Activity Based Costing
ACCA	Association of Chartered Certified Accountants
ACP	Africa Caribbean and Pacific Countries
ALCP	Alliance Life Cycle Phase
ARPU	Average Revenue Per User
ARRGU	Average Revenue Per Revenue Generating Unit
BoZ	Bank of Zambia
BP	Business Process
CIMA	Chartered Institute of Management Accountant
CSFs	Critical Success Factors
DREC	Daily Revenue Earning Customer
EAC	East African Community
EBITDA	Earnings Before Interests, Taxation, Depreciation & Amortization;
ECM	Enterprise Cost Management
ERPS	Enterprises Resources Planning Systems
EU	European Union,
FDI	Foreign Direct Investment
GAAP	Generally Accepted Accounting Principles
GDP	Gross Domestic Product
GRZ	Government of the Republic of Zambia
IOSA	IATA Operational Safety Audit
ISPs	Internet Service Providers
JETRO	Japan External Trade Organisation
KPI	Key Performance Indicators
LCC	Life Cycle Costing
LuSE	Lusaka Stock Exchange
MP	Management Process
MSMES	Small and Micro Enterprises
OEM	Original Equipment Manufacturers
PC	Process Category

PESTEL	Political Economy Social Technology Environment and Legal
REC	Revenue Earning Customers
ROA	Return On Assets
ROE	Return on Equity
ROI	Return on Investment
SEP	Strategic Equity Partner
SWOT	Strength Weakness Opportunity and Threats
TCO	Total Cost of Ownership
UNISA	University of South Africa
ZDA	Zambia Development Agency
ZICTA	Zambia Information Communication Authority

CHAPTER 1 - GENERAL INTRODUCTION

1.1 Introduction and Context

The study aims to develop an enterprise cost management conceptual model for managing costs in strategic alliances. Over the past three decades, strategic alliances (SAs) have attracted substantial attention from industry and academia (e.g. Child, Hsieh and Tallman., 2019; Das, 2006; Devlin and Bleackley, 1988; James, 1985). Strategic alliances present a new business leadership paradigm. Gallo, the world's largest producer of wine, does not grow a single grape; likewise, Nike, the world's largest producer of athletic footwear, does not manufacture a single shoe. The giant aircraft manufacturer Boeing makes little more than cockpits and wing bits. How is this possible? As Quinn (1995) observed, these organisations, like many others in this age, have entered into strategic alliances with their suppliers to do much of their production and manufacturing. As a consequence, contemporary companies need to review their traditional business models, including cost management approaches for interfirm collaboration and relationship coordination to meet rapidly changing expectations, requirements and characteristics of existing or potential strategic partners (Bouncken and Fredrich, 2015). A strategic alliance epitomises a voluntary relationship between two or more independent organisations, normally firms, which is intended to achieve both their individual and mutual strategic objectives (He, Meadows & Angwin, Gomes, & Child, 2020). Accordingly, the concept of a strategic alliance is multi-dimensional and depends on the degree of integration between partners and the underpinnings of the relationship between partners.

Strategic alliances are a rapidly growing phenomenon in the contemporary international business environment. They have become a central perspective on strategic management of inter-firm collaboration as an approach for a new way of thinking for strategy managers (Bhattacharyya, 2019). While this phenomenon has made the business environment vastly more competitive, complex, and uncertain, Bateman and Snell (2007) postulated that firms are turning to strategic alliances to manage their costs, uncertainty and risk. In agreement with this, Albers, Wohlgezogen and Zajac (2013) contended that strategic alliances make it possible for the partners to not only share the knowledge and benefits but also to share the risks as well thereby cushioning the individual loss of the partners' strategic alliances and therefore are a useful vehicle for acquiring, sharing and enhancing the institutions' knowledge base at a minimized cost (Jiang, Bao, Xie &

Gao, 2016; Phene & Tallman, 2014; Zhao, 2014). Thus, it is becoming increasingly important for firms to adopt more flexible structures such as strategic alliances as viable and cost-effective alternatives to internal research and development (Harrigan, 1986). Therefore, strategic alliances have increasingly become new business arrangements to achieve corporate objectives.

Despite the growing popularity of strategic alliances, collaborative success remains elusive for many companies. Bhattacharyya (2019) argued that while strategic alliances can create value for firms very quickly, yet history is replete with instances wherein many of them have failed prematurely. Several prior studies have noted alliance failure rates in the 50 - 60% range (e.g. Kliman and Price, 2015; Cheriet & Cherbib, 2014; Kaplan, Norton, & Rugelsjoen, 2010, Desreumaux & Hafsi, 2006; Spekman, Lynn, MacAvoy, and Forbes 1996; Dacin, Hitt, and Levitas, 1997). Accordingly, other scholars (e.g. Masoud, Buzovich & Vladimirova (2020); Grigore (2006); and Kelly, Schaan and Joncas (2002) identified the lack of business cost management approaches as one of the challenges contributing to strategic alliances failure.

In agreement with the concerns raised in the literature about the premature failure of strategic alliance. How would an enterprise (or business) cost management approache contribute to the strategic alliance's success? This is the question that the current body of knowledge fails to provide a comprehensive answer to. Thus, this study sought to answer this question by developing an enterprise cost management conceptual model for managing costs in strategic alliances. Enterprise Cost Management (ECM) techniques provide collaborative approaches to reducing costs. Strategic ECM can formalise goals, establish accountability metrics and tracking to ensure timely plan completion and drive external collaboration with multiple groups like partners and suppliers (CGN Global, 2013). Using such an approach enable organisations engaged in strategic alliances to realise benefits such as; a structured approach to help manage cost, visual depiction of the supply chain, purchasing and product assembly, Total Cost of Ownership (TCO) based decision-making, enhanced expenditure analysis, and risk-sharing implementation structure.

This new thinking aligns with the argument by Gunasekaran, Williams, and McGaugheyc, (2005) that companies have to cope with multiple dimensions of change involving international best practices, regulation, technology, new competitors and business models, market pressures, and constantly changing customer demands. This intense competition in the global economy has

resulted in many organisations partnering in different fields with a competitive edge. As a result, companies in all sectors are examining ways to reduce costs, shorten product development times and manage risks (Gunasekaran *et al.,* (2005). Both Steinhilber (2008) and Sundelin (2009) argued that having a low-cost structure presents a strong competitive advantage that market leaders in the industry recognise when organisations with low-cost business models enter their markets. Oliveira, Nunes, and Afonso (2018), argued that cost management in partnerships can play a fundamental role in the success of companies. This argument is supported by Zengin and Ada, 2010 who postulated that cost management strategies are among the most important managerial tools and techniques employed by companies. Understanding the role of costs in the performance of strategic alliances in the telecom sector compelled us to contextualise the theoretical foundations of strategic alliances.

Several theories pertain to strategic alliances. These are economic theories, game theories and inter-organisational theories. The current study considers the strategic alliance's theoretical foundation by looking at the economic and inter-organisational theories. The current research is anchored on the transaction cost theory (TCT) and the resource-based theory (RBT) but considers two other theories. These are agency theory and inter-organisational theory. The transaction cost and the resource-based theories were chosen because the nature of alliance formation is primarily based on resource-based theories, whereas the transactions between two firms engaged in an alliance project are premised on the transaction cost theory. TCT focuses on minimising transaction costs between parties within the alliance alliance while RBT is the drive to minimise resources across the alliance network. TCT further suggests that formalized or strategic alliance agreements ensure the performance of partner companies (Gulati & Singh, 1998; Williamson, 1981). On the other hand, the fundamental assumption of the resource-based view (RBV) is that a firm “must own or at least fully control the resources that confer competitive advantage” (Lavie, 2006).

1.2 Study Background

The current research used Zambia’s telecommunication sector as a case study to investigate the cost management conceptual model in strategic telecommunication alliances using two policy frameworks that promote strategic alliances in the economy. These are the Zambia Development Agency (ZDA) Act of 2006 (Government of Zambia, 2006) and the Medium, Small and Micro

Enterprises (MSMEs) Industrial policy of 2008 (Ministry of Commerce Trade and Industry, 2008). Section 81 of the ZDA Act, No. 11 of 2006, on strategic alliances states that the ZDA will:

> *"…explore ways of fostering business linkages, such as partnerships, joint ventures and other strategic alliances, in greenfield investments…."*

Despite this policy framework and other noted policy interventions, there is limited published information, insufficient knowledge among companies, and advising companies on strategic alliances in Zambia.

The telecommunications industry is one of the fastest-growing industries and has a tremendous ripple effect on the overall national economy (Czernich, Falck, Kretschmer, & Woessmann, 2011). The telecoms industry's notable growth in user subscriptions and collaborative arrangements. Based on the GSMA Mobile Economy Report (2019), an estimated 710 million new mobile subscribers will be added to the global mobile subscriber base by 2025. Over half of these new subscribers were expected to come from the Asia Pacific region, and just under a quarter came from Sub-Saharan Africa. The Report further added that with such growth continuing, 4G would become the dominant mobile technology, surpassing half of the global mobile connections in 2019 and was expected to reach 60 per cent in 2023. On Mobile Money, there were more than 866 million registered accounts in 90 countries, while the mobile money industry processed transactions worth US$1.3 Billion per day in 2018, with digital transaction values growing at more than twice the rate of cash transactions (GSMA, 2019). The ICT sector has also increased its enthusiasm for strategic alliances, as seen in the collaboration by Cloud Service Providers for New Security Initiative. The Linux Foundation announced its intention to form the Confidential Computing Consortium, a community dedicated to defining and accelerating the adoption of confidential computing. The leading cloud service providers involved in the consortium included Google Cloud, Microsoft, Alibaba Cloud, IBM, Red Hat, Baidu, Intel, Swisscom, Arm and Tencent (GSMA, 2019). According to the Mobile Economy Sub-Saharan 2019 Report, the number of registered mobile money accounts in SSA represented almost half of global accounts. The number of accounts was expected to increase to over 600 million by 2025 (Source IMF, World Bank 2020).

This study considered four principal market segments in the telecommunications sector in Zambia based on the Zambia Information Communication Authority (ZICTA) categorisation: landline (fixed/terrestrial), international gateway, mobile telephony, and Internet markets. There was a total of 71 valid licences issued in the ICT sector in 2021. Of the registered companies with ZICTA, MTN Zambia Limited and Airtel Zambia Limited dominated the mobile market share, with 42.3 per cent and 39.7 per cent, respectively. Zamtel maintained the most minor market share in mobile telephone subscriptions at 17.9 per cent (ZICTA Report 2022). The fixed landline and international gateway markets were a privileged monopoly of the state-owned Zamtel Limited. The usage of mobile money or electronic money services in Zambia continued to increase, mainly driven by sending and receiving of funds as well as payments for utility services such as electricity and water and subscription to pay TV channels. Specifically, the value of mobile money transactions grew to ZMW 49.6 billion in 2019. Similarly, the volume of mobile money transactions increased to 553 million in 2019, reflecting an improvement of 81.9 per cent from 2018. The total number of active mobile phone subscriptions continued to grow in the last twelve years, as shown in Figure 1.1.

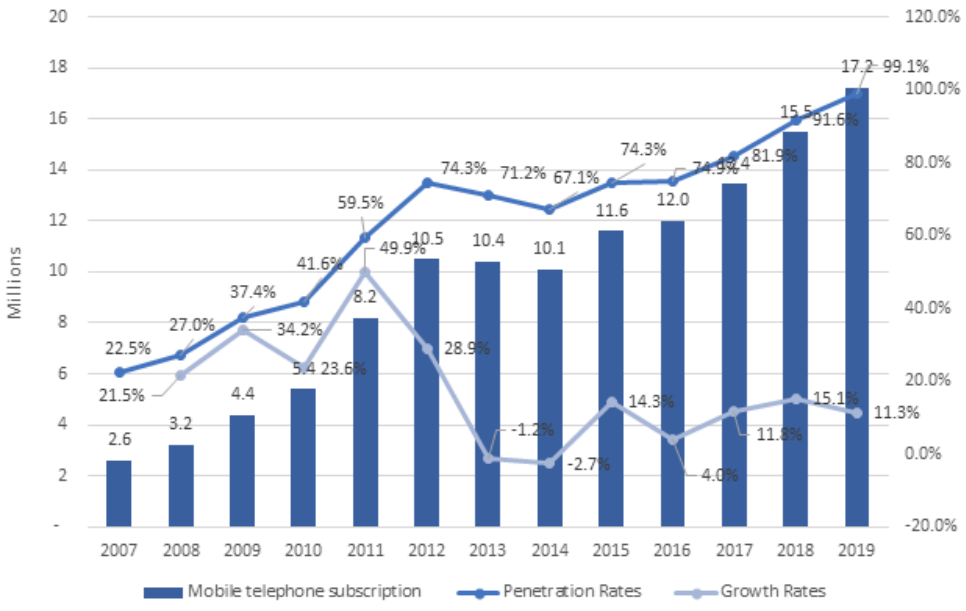

Figure 1. 1: Figure 1.1: Active Mobile Subscriptions for the period 2007 to 2019

Source: ZICTA (2020)

By the end of 2019, the total number of active internet subscriptions in Zambia increased to 9.2 million, reflecting an increase in internet penetration rate from 49.8 per cent in 2018 to 52.8 in 2019. The improvement was mainly attributed to collective investments among service providers, which led to extensive coverage of 3G/4G networks and the increased adoption of emerging technologies such as 3G and 4G/LTE. Further, the increased rollout of networked devices such as point-of-sale machines had partly influenced the growth of mobile internet uptake (ZICTA Report 2019). Table 1.2 shows the Internet Subscriptions and Penetration Rates for three up to 2019.

Table 1. 1: Internet Subscriptions and Penetration Rates 2017 - 2019

Internet Usage	2017	2018	2019
Fixed Internet Subscriptions	36.121	73.532	89.507
Fixed Internet Subscriptions Per 100 inhabitants	0.22	0.44	0.51
Mobile Internet Subscriptions - 3G and 4G/LTE	7,723.855	8,346.609	9,140.666
Mobile Internet Subscriptions - 100 inhabitants	47.10	49.40	52.60
Internet Subs -Fixed & mobile internet subs	7,759.976	8,420.141	9,230.173
Internet Subscriptions Per 100 inhabitants	47.30	49.80	53.10

Source: ZICTA (2020)

1.3 Research Gap and Problem Statement

This study acknowledged that there is sufficient evidence in the literature that strategic alliances contribute to business growth and development (Liu and Ravichandran, 2015; Amir, Sindhu, Hummayoun, Saif, 2010). Prior research conducted by Bertola, Hochhuertel, and Koeniger (2005); Chen and Ross (2000); Farooq (2007); Hand (1997); Noorzoy (1982); Usmani (1999); Villegas (1989) highlighted the significance of strategic alliances for business growth and development. While the literature on the positive outcomes of strategic alliances suffices, Dyer, Kale and Singh (2001), Drucker (1996), and Glover and Wasserman (2003) argued that the price of failure of businesses is high. Over 50% of new strategic alliances fail to achieve their desired objectives (e.g., Chakravarty, Zhou, and Sharma, 2020; Dyer, Kale, and Singh, 2001; Hughes and Weiss, 2007; Kliman and Price, 2015). This is partly attributed to poor measuring and managing success metrics (Thomaz and Swaminathan, 2015; Kalaignanam, Shankar, and Varadarajan, 2007; Segil, 2004). Considering such high numbers, studies have examined factors that improve the chances of alliance success (e.g., Fang *et al.,* 2016; Mani and Luo, 2015). Johnes, Johnes and Thanassoulis (2005) argued that cost management is critical to the adequate business performance of a firm or

in any organisational arrangement. Similarly, Wichmann (1983) argued that one of the reasons for business failure is poor management ability to consider cost management in management decisions.

Due to heightened globalization and advances in ICT, sectors that share certain characteristics, are increasingly being penetrated by new competitors using new, low cost business models, inter alia banking, telecoms and the airline industry, that might make the management of business costs critical drivers of competitive advantage, and that are increasingly using strategic alliances to deliver this advantage. While on the contrary, existing sector incumbents who are struggling with legacy costs and organisational architectures and cost structures would need to pay increasing attention to business costs to remain competitive. With increased global competition, organisations are adopting new costing systems based on performance to reduce costs, shorten product development times and manage risks (Gunasekaran et *al.,* 2005). Despite the emergence of new costing systems, traditional cost accounting systems are also popular. Hughes and Pierce (2006) found that up to 75% used the traditional accounting system. This application of both systems creates a business challenge for alliance managers, i.e. confusion and conflict amongst alliance managers. This confusion arises due to the mismatch between the underlying cost management principles and methods in each of these approaches. In a related study of top 10 risks in telecommunications report, Ernst and Young (2018:9) affirmed,

> *"The metrics and key performance indicators (KPIs) that operators use to manage their operations internally and communicate their performance and prospects externally have not kept pace with the shift in business models from minutes to bytes…. Also, commonly used external metrics such as average revenue per user (ARPU) fail to give investors a full picture. Operators urgently need to define a new comprehensive enterprise cost approach and different set of metrics that puts the customer first and leads to improved financial performance".*

However, from the current literature review, the existence of a comprehensive enterprise cost approach for strategic alliances success is not fully investigated, developed and presented. Therefore, the study sought to fill this theoretical and empirical gap and improve the prospect of

strategic alliance success by developing an enterprise cost management conceptual model for managing costs.

1.4 Research Questions

This research aimed to develop an enterprise cost conceptual model that practitioners can apply in managing costs in strategic alliances. Based on the problem statement outlined above, the main research question was: *What appropriate enterprise cost conceptual model can alliance managers use in managing costs in strategic alliances?*

Given the research question, the study addressed these sub research questions:

a) What main standard activities contribute to costs between strategic alliance partners?
b) How should costs in strategic alliances be measured?
c) What is the practical application of an enterprise cost conceptual model in a real-life project?

1.5 Research Propositions

The observations in the problem statement lead to the following research propositions:

a) **Research Proposition 1 (RP_1)**: There are no specific main standard activities that give rise to costs between strategic alliance partners.
b) **Research Proposition 2 (RP_2)**: There are no specific approaches that are required to measure costs in strategic alliances.
c) **Research Proposition 3 (RP_3)**: The lesser application of the appropriate enterprise cost conceptual model in a real-life project, the lower its corporate performance.

1.6 Justification and Significance

In justifying the research, it is essential to recognise that a comprehensive search of related topics within the current literature (the past ten years) did not yield significant results. A Google and University of South Africa (UNISA) thesis and dissertation databases search yielded limited results regarding empirical literature on the management of costs in strategic alliances. Further, an excerpt of an email to the author from Rona Camille Parducho, a financial data expert at Thomson Reuters, stated that "*I was able to finish the 2005-2013 strategic alliance deals for the regions that*

would be applicable for the …. note that Zambia had very minimal results and thus in generating data, most had zero results…." (Thomson Reuters, 2013). The former general manager of the Lusaka Stock Exchange (LuSE), Mr C Mate (personal email, 10 September 2011), also stated that there is insufficient knowledge on strategic alliances in Zambia and experts advising companies on the same issue. Generally, research and literature have shown a significant gap in understanding why strategic alliances succeed or fail. Therefore, this study brought to light that:

a) Understanding cost would enable the right decisions for new strategic structures;
b) existing traditional costing systems are not flexible enough to react to the dynamism of the global competitive environment; and
c) cost in performance measurement is critical to any organisation's success because it creates understanding, moulds behaviour, and improves competitiveness.

Therefore, this study is of practical importance as it would help these strategic alliances be more effective and successful. The alliance enterprise cost conceptual model will allow alliance managers to consider the right cost decisions when managing their alliance projects in turbulent environments. This, in turn, will allow them to take corrective actions while implementing an alliance. With a solid alliance cost management conceptual model in place, one reduces risk, holds stakeholders accountable, sets clear expectations, creates a platform for decision-making and improves the overall chances of success.

1.7 Research Delimitations and Scope

The study investigated the nature of different costs and cost assumptions in managing strategic alliances' business performance. Under the current research, mergers and acquisitions, overseas subsidiaries of multinational corporations, and franchising agreements were not classified as strategic alliances. The research scope was confined to studying enterprise cost approaches of strategic alliances in the telecommunications sector with due attention to the fixed-line and international gateway, mobile telephony and Internet markets in Zambia. The study was conducted in a sector with similar topographies. The use of similar environments within the study enabled industry cross benchmarking and made the telecommunication sector feasible. One study assumption considered from the review of literature was that enterprise cost management is one of the critical factors that determine the success of strategic alliances in sectors like telecommunications, but there also others as identified in section 1.1.

1.8 Clarifcation of Concepts

Table 1.2 summarises the concepts of the study,how they relate to one another, and how they relate to developing the strategic alliance enterprise cost management conceptual model.

Table 1. 2: Operational definitions of variables/concepts

Concept	Definition	Operationalisation	Authors
Inter-organisational strategic alliances phenomena	A fact or situation that is observed to exist or happen.	Questions about the existence of alliances, frequency of partnering, types of alliances and the extent to which they have developed.	Kang & Sakai (2000).
Cost management approaches	Method used to ascertain the cost.	Questions that focus on a costing system that is suited for an alliance.	Llango (2009).
Alliance life cycle phases	The Process that an alliance goes through and gives rise to cost.	Questions on those value-adding activities from alliance inception to sustainability/termination.	Hwang and Park (2007), Steinhilber (2008).
Performance metrics	Measure of an organisation's activities and performance.	Questions that seek to identify effective measures ensure a clear assessment of performance.	Barber (2008), Segil (2010).
Cost Driver	The unit of an activity that drives the cost change in the alliance life cycle.	The questions are on allocating costs to cost objects relating to value activities in the alliance life cycle.	Armstrong (2002).
Process Elements	Specific function within some process that helps to control and report costs.	Question that seeks to standardise control processes in strategic alliances.	Gunasekaran *et al.* (2005).
Enterprise Cost	Organisation-wide cost (not just financial) of managing an alliance.	Question that helps alliance managers figure out the cost for certain activities and processes through an effective performance management system.	Ward and Graves (2004).

1.9 Research Design

The study adopted a mixed model research design that included quantitative and qualitative research data, techniques and methods in the two stages of the research process. This design

method used mixed data and additional means (statistics and text analysis). Data was collected scientifically through multiple forms of data collection (semi-structured interviews, field notes, questionnaires, content analysis of company reports, and formal communication). The study's analysis units were the alliance managers drawn from telecom companies with due attention to the telecom sector's four pillars. Telecom companies registered with the ZICTA were chosen as the target market. The study included 63 respondents willing to participate in this research, of which 53 participants responded, representing an 84% response rate, i.e. 42 responded out of 48 for questionnaires (88%) and 11 participated in the interviews (73%) out of 15 targeted samples. The sampling method used for the research was purposive (non-probability) sampling. To identify the research participants regarding the interviews, it was decided to use alliance managers who were regarded to have sufficient knowledge and experience to identify and evaluate costs associated with strategic alliances. This approach helped answer the research question of how practitioners can apply the enterprise cost conceptual model in managing costs in strategic alliances.

1.10 Thesis Structure

The study comprises seven chapters with the following headings as follows:

Chapter 2 represents enterprise cost management theory and practice in strategic alliances and establishes this study's theoretical model and foundation. The chapter reviewed authors that have contributed strategic alliances, costing and performance management theories. This is complemented by reviewing the business environment's current perspective and enterprise cost approach in strategic alliances, providing context and depth. By so doing, the chapter provided both the theoretical and practical foundation for this study. The chapter further discusses how conceptual models are defined, formulated and operationalised.

Chapter 3 explains the research design and methodology with a focus on the research approaches and designs for the study. The research questions and the research propositions were discussed. The demarcation and the study's nature were provided, and the rationale behind the chosen methodology was explained. The different types of models and the conceptualisation model for this study were also discussed. The credibility, validity, reliability and generalisability were also discussed. Finally, the limitations of the research methods and the ethical considerations about the methodology were tackled.

Chapter 4 dealt with the contextualisation of the research findings. This study's vital qualitative and quantitative findings were presented concerning the research questions and propositions. This chapter discussed the results and interpretation in light of costs in strategic alliances. It concluded with synthesising and analysing the research results of the interviews and questionnaires 5 to establish whether the data responded to the research questions and the research propositions.

Chapter 5 highlights the contribution to the body of knowledge by developing and presenting the enterprise cost management conceptual model based on the literature review, results, and synthesises of the questionnaires and the interviews discussed in Chapters 4 and 5.

Chapter 6 draws the research to a conclusion based on the study's findings by reflecting on the importance of theoretical and practical contributions. The conclusions were evaluated against the original problem statement by answering the research questions and propositions. Recommendations were made from insight gained from the analysis and findings, which may encourage the ECM's operationalisation. Consequently, the scope for further research investigations that could derive from this study was suggested.

1.11 Chapter Summary

The chapter provided the study's overview, context and rationale. The term strategic alliance was conceptualised with the key concepts of relationships, enterprise cost management, and corporate performance measures in strategic alliances. The four theories on strategic alliances, i.e. transaction cost theory, resource-based theory, agency theory, and Inter-organisational theory, were explained. The cost approaches, systems and models of strategic alliances were briefly highlighted. The research problem was introduced, and the research objectives, questions and propositions were provided. Furthermore, this study's importance and contribution were discussed, followed by a brief discussion of the research design.

CHAPTER 2 - THEORY AND PRACTICE OF ENTERPRISE AND COST MANAGEMENT IN STRATEGIC ALLIANCES

2.1 Introduction

This chapter analyses many scholars' contributions to the theory and practice of enterprise cost management approaches in strategic alliances. The study aimed to develop an enterprise cost conceptual model that practitioners can apply in managing costs in strategic alliances. To achieve this and address the research gap, a review of relevant and related literature was undertaken to understand the phenomena of strategic alliances, cost management approaches, alliance life cycle phases, performance metrics and dynamism of the telecom industry. The structure of the literature reviews is aligned with the research questions and is illustrated in Figure 2.1:

Figure 2. 1: Structure of Literature Review

Strategic alliances are becoming an essential business activity in many industries, particularly given global competition. One of the most popular organisational strategies for developing business structures is forming strategic alliances (Masoud, Buzovich, & Vladimirova, (2020). According to the review "2018 Global CEO Outlook" of KPMG, which was attended by 1,300 senior executives from 11 major economies of the world, the prospect of strategic alliances

establishment proved to be the most attractive in the conditions of the increasing competition and the changes in the international business structure. The most significant change in corporate culture and business is the accelerating growth of relationships based not on ownership but on partnership (Drucker, 1996). Strategic alliances are not a panacea for every organisation and every situation. However, through strategic alliances, organisations can improve their competitive positioning, gain entry to new markets, supplement critical skills, and share the risk and cost of major development projects (Išoraitė, 2009). Since alliances are a significant cornerstone of strategy for many corporations, Barney and Clark (2007) contended the need for managers to understand the drivers for success, which includes cost management.

2.2 Nature and Types of Strategic Alliances

The Strategic Alliance is one of the most common organisational forms of inter-firm integration based on agreements of long-term cooperation of two or more independent business structures for their joint strategic goals implementation based on a synergy of their combined and complementary resources (Masoud *et al.,* 2020). There is no single definition for a strategic alliance, but Efremov and Vladimirova (2017) argued that the term "strategic alliances" means various forms of a partnership of business entities, which represent a transitional form between the market and non-market transactions. Further, strategic alliances are inter-organisational relationships that allow otherwise independent firms to share various resources (e.g., Schilke & Goerzen, 2010). Schepker, Oh, Martynov, & Poppo, 2014) expanded on this view that the contracts used in these alliances are a central mechanism for governing the interfirm exchange. These alliance contracts usually consist of various provisions with markedly different functions. Specifically, a critical differentiation can be made between contractual provisions about control and contractual provisions about coordination (e.g., Lumineau, 2017). Contractual control creates adherence to the desired outcome with minimal deviant behaviour through exercising authority or power mechanisms.

On the other hand, contractual coordination is a means to achieve a desired collective outcome and facilitate goal congruence by providing the appropriate linkages between partners (Malhotra & Lumineau, 2011). Dyer and Singh (2001) broaden this view by stating that complementary resources and capabilities, relation-specific assets, knowledge-sharing routines and effective governance (such as cost management mechanisms) contribute to inter-organisational competitive

advantage. While strategic alliances are famously viewed as inter-organisational relationships, Elmuti and Kathawala (2001) referred to strategic alliances as projects. Rwelamila (2007) proposed a three-dimensional look into project success factors in a related study, as indicated in Figure 2.2. He argued that project success is defined by delivering a project within time, cost, quality and schedule whilst managing all project stakeholders and replaced Scott-Young and Samson's (2006) project operability factor with what he termed "utility" as a dimension for project success.

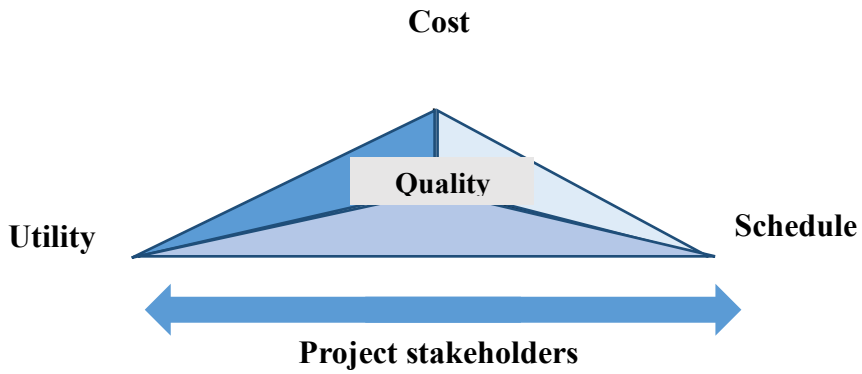

Figure 2. 2: Rwelamila project success parameters

Source: Rwelamila (2007)

Rwelamila (2007) further argued that project success is unpredictable, and cost and schedule fluctuations persist throughout the projects whilst utility is greatly neglected. In supporting this view, Nicholas and Steyn, (2008) maintained that developing the project cost estimate is closely tied to the phases of the project life cycle and added that cost estimating, budgeting, and cost control sometimes are thought to be the exclusive concerns of planners and accountants, but in projects, they should be of concern to everyone. Despite Rwelamila's (2007) project success parameters and studies by Nicholas and Steyn (2008) and Elmuti and Kathawala (2001), enterprise cost management approaches are crucial to alliance success during planning, development and execution. Literature is limited on cost management techniques that alliance managers can use.

For this research, a strategic alliance is operationalised as a relationship between two or more parties to pursue a set of agreed-upon goals or meet a business need that is mutually beneficial while remaining independent.

There are different types of strategic alliances. The Coopers and Lybrand (1997) study identified that their clients were engaged in different alliances, as shown in Figure 23.

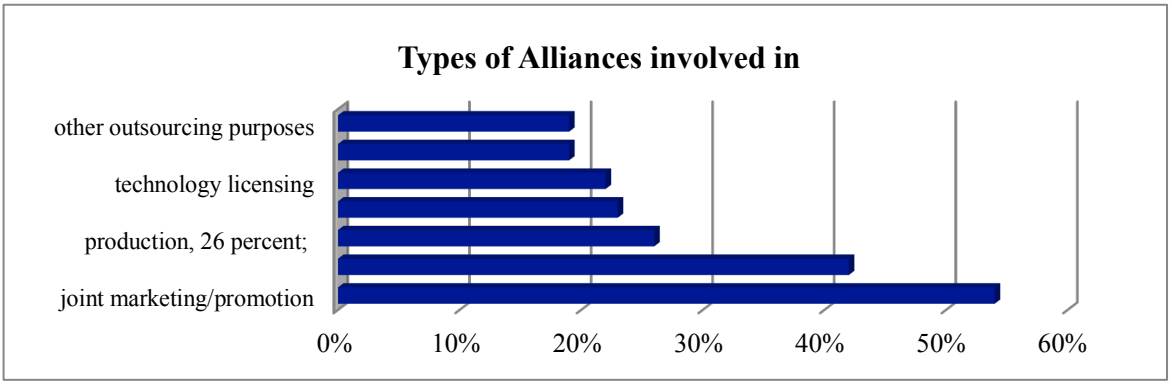

Figure 2. 3: Coopers & Lybrand types of strategic alliances

Source: Coopers & Lybrand (1997)

The Association of Strategic Alliances Professionals (ASAP) (2008) categorises strategic alliances in four types, namely

a) joint venture,
b) strategic equity alliance,
c) non-equity strategic alliance, and
d) global strategic alliances.

Therefore, it can be observed from the literature that strategic alliances form and structure vary with the firms' market positions, i.e. leader vs follower and the strategic importance of collaborations within each firm's portfolio, for instance, core versus peripherals business (Lorange and Roos, 1993).

Much of the discussion in the literature on strategic alliances revolves around alliances between two companies, but there is an increasing trend towards multi-company alliances. For instance, a six-company strategic alliance was formed between Apple, Sony, Motorola, Philips, AT&T and Matsushita to form General Magic Corporation to develop Telescript communications software (Coopers and Lybrand, 1997). Another form of an alliance is that of national economies forming regional integration blocs. According to Ginkel (2003), regional integration refers to how states within a particular region increase their level of interaction concerning economic, security,

political, social and cultural issues. The agreement's objectives could range from economic to political, although it has generally become a political economy initiative where commercial purposes are the means to achieve broader socio-political and security objectives. The focus of this study was limited to the discussion of corporate business entities with multi-company alliances.

Research on strategic alliances has posited theories addressing why firms enter into a closer business relationship. Firms enter alliances for a variety of reasons (O'Dwyer & Gilmore, 2018; Panico, 2017), including entry to new markets (Lee, 2007), getting access to skills and knowledge (Drewniak & Karaszewski, 2019; Hamel, 1991; O'Dwyer & Gilmore, 2018), gaining legitimacy (Hubbard *et al.,* 2018; Lin *et al*., 2009) and mitigating risk (Inkpen, 2001). Kafigi (2014) found that firms form strategic alliances to access new markets and technology, search for new efficiencies and competencies, enhance their productive capacities, profit and supply processes, reduce cost and financial risk and share research and development costs. Various studies have advanced similar motives (e.g. Gundolf, Jaouen, Gast, 2018) showed that strategic alliances sought the reduction of overspecialization, enhancing competitiveness, opportunism and necessity. Other prior studies include efficiency creation through economies of scale specialisation and/or rationalisation (Lorange and Roos, 1993; Gugler, 1992), maximise the use of facilities (Lindsay, 1989), complementary capabilities (Henricks, 1991), growth and improvement in competitiveness (Spekman and Sawhney, 1990), beat competitors (Roberts, 1992; Lindsay, 1989), spreading financial risk and sharing costs (Spekman and Sawhney, 1990). Therefore, strategic alliances can potentially provide much value to partnering firms. Based on the studies considered, a summary of various motives for developing strategic alliances is provided in Table 2.1.

Table 2. 1: Consolidated Motives of Forming SAs

No.	Motive	Author
1	Access new markets and technology,	O'Dwyer & Gilmore, (2018); Panico (2017); Kafigi (2014); (Lee, 2007)
2	New efficiencies and competencies - *efficiency creation through economies of scale specialisation and/or rationalisation*	Kafigi (2014); Lorange and Roos (1993); Gugler (1992),
3	Enhance productive capacities and complementary capabilities	Kafigi (2014); Henricks (1991)
4	Profit and supply processes,	Kafigi (2014)
5	Reduce and share the cost and spread financial risk	Kafigi (2014); Spekman and Sawhney (1990);Inkpen, (2001)
6	Share research and development costs	Kafigi (2014)
7	Reduction of overspecialization,	Gundolf, Jaouen, Gast (2018)
8	Enhancing competitiveness	Gundolf, Jaouen, Gast (2018)
9	Opportunism and necessity	Gundolf, Jaouen, Gast (2018)
10	Maximise use of facilities	Lindsay (1989)
11	Growth and improvement in competitiveness	Spekman and Sawhney (1990)
12	Overcoming competitors	Roberts, (1992); Lindsay (1989)
13	Getting access to skills and knowledge	Drewniak & Karaszewski, (2019; Hamel, 1991; O'Dwyer & Gilmore (2018),
14	Gaining legitimacy	Hubbard *et al.,* (2018); Lin *et al*., (2009)

Understanding the nature, configuration types and motives of an alliance was important to this current research to delineate which alliances were covered by this study. For this study's purpose, the scope of the alliances is limited to that one corporate alliance, i.e. private company to company or company to several companies.

2.3 Theoretical Development of Strategic Alliances

Several inter-organisational formations emerge when organisations search for new efficiencies and competitive advantages. The principal dimension is that collaborating firms experience increasing integration and formalization in the governance of their inter-organisational relations. Alliances

are recognised as hybrid organisational forms or arrangements between firms that blend hierarchical and market elements (Auster, 1994; Olk, 2002). Several theories pertain to strategic alliances: economic, game, and inter-organisational. The current study considers the strategic alliance's theoretical foundation by looking at the economic and inter-organisational theories. Figure 2.4 shows the theories of an alliance, emphasising the theories that form this study's basis.

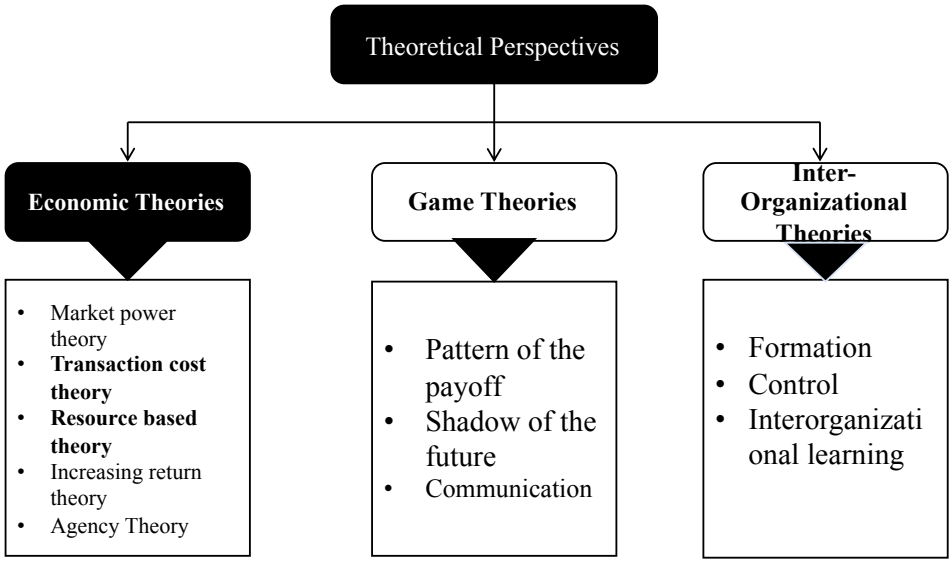

Figure 2. 4: Theoretical perspectives of SAs

The current research is anchored on transaction cost-sourced theories. The transaction cost and the resource-based theories were chosen because the nature of alliance formation is primarily based on resource-based theories, whereas the transactions between two firms engaged in an alliance project are premised on the transaction cost theory.

2.3.1 Transaction Cost Theory

International business scholars have extensively applied transaction cost theory to analyse joint ventures and strategic alliances (Meyer and Wang, 2015). Transaction cost economics assumes that business enterprises choose governance structures that economize transaction costs associated with establishing, monitoring, evaluating, and enforcing agreements (Williamson 1979; 1981). Per the rule, predictions about the nature of the organisation's governance structure will incorporate two behavioural assumptions: bounded rationality and opportunism (i.e. the avoidance of forbearance). These assumptions mean that the central problem to be solved by organisations is how to design governance structures that take advantage of bounded rationality while safeguarding

against opportunism. Implicit and explicit contracts are established, monitored, enforced, evaluated, and revised to solve this problem.

The theory has direct implications for understanding how alliances are used to minimise the cost of the myriad implicit and explicit contracts between collaborative companies (Chi & McGuire, 1996). Partners try to establish contractual relationships to reduce their transaction costs. However, they find this process more accessible to do vis-à-vis explicit, visible resources than hidden assets like competencies and knowledge. Transactions cost theory suggests that firms that enter into strategic alliances are potentially vulnerable to their partners' opportunistic behaviours that impede achieving commitment (Hamel, Doz, and Prahalad, 1989; Reich and Mankin, 1986). Opportunistic behaviour is defined here as those conscious, deceitful behaviours by one party to the exchange meant to enhance their position or outcomes, usually at the other party's expense (Provan, 1982). Williamson (1975) refers to opportunism simply as "self-seeking with guile". These opportunistic actions may take the form of misrepresenting competencies, the limited commitment of resources to the alliance, holding specific investments by the partner hostage, appropriating private information, or premature exit from the relationship. Recently, (Wong and Ngai 2021) have developed a conceptual model to illustrate the impact of business competence on sustainable firm performance. Therefore, this theory is central to the current study to search for suitable approaches for adequate and equitable cost management in a strategic alliance.

2.3.2 Agency Theory

On the other hand, Agency theory focuses on the contracts between a party (i.e., the principal) whom delegates work to another, i.e. the agent (Jensen and Mecklin, 1976). Eisenhardt (1989) argued that agency relations are problematic in that:

i. the principal and agent frequently have conflicting goals; and
ii. it is difficult or expensive for the principal to monitor the agent’s performance.

Contracts are used to govern such relations to overcome such challenges. Efficient contracts align the goals of principals and agents at the lowest possible cost. Costs can arise from providing incentives and obtaining information (e.g. about the agent’s behaviour and/or performance outcomes). Agency theory appears to be particularly useful for understanding executive and managerial compensation practices, which are viewed as a means for aligning the interests of the

owners of a firm (i.e., principals) with the managers in whom they vest control (Reuer and Miller, 1997). The theory is also helpful in gaining insights into how partners can control the manager's behaviours in the strategic alliance.

2.3.3 Resource-Based Theory

The firm's resource-based theory blends concepts from organisational economics, strategic management, and human resource management (Schuler and Jackson, 1999). The theoretical foundation of the current research is (Penrose 1959) intellectual contribution to a resource-based view of a corporation's competitive advantage. Penrose's theory of firm growth viewed the corporation as the bundle of capabilities and resources administrated by a firm's management. (Penrose 1959) argued that a firm's resources are efficient in current uses, whereas unused resources become available for further growth. Later, (Penrose 1959)'s "resources approach" to the growth of the firm gave way to the modern resource-based view (RBV) on sources of competitive advantages in the 1980s and 1990s (Kor and Mahoney 2000). Prahalad and Hamel defined core competence as a central value-creating capability of an organisation (Prahalad and Hamel 1990). This view assumes that organisations can succeed if they gain and maintain a competitive advantage (Porter, 1985). Competitive advantage is gained by implementing a value-creating strategy that competitors cannot easily copy and sustain and for which there are no ready substitutes (Barney, 1991). For competitive advantage to be gained, two conditions are needed: First, the resources available to competing firms must be variable among competitors, and second, these resources must be immobile (i.e., not easily obtained). Three types of resources are associated with organisations, namely:

i. Physical (plant; technology and equipment; geographic location);
ii. Human (employees' experience and knowledge); and
iii. Organisational (structure; systems for planning, learning, and monitoring; controlling activities; and social relations within and between the organisation and external constituencies).

Based on the resource-based theory, several empirical studies have investigated various issues related to strategic alliances, such as the types of resources, their relationship to the alliance formation, the relationship of the resources and the alliances with performance. Eisenhardt and

Schoonhoven (1996) considered that the top management team is a type of resource in a firm ad that the larger the top management team is, the higher the alliance's, while Park *et al*. (2002) found that financial resources and interaction of market demand with technological and manufacturing resources positively affect formation. In terms of the relationship of the performance alliance, it was found that the uniqueness of a target technology is negatively related to the firm's performance. However, the imitability of technology is positively related to the performance in the acquisition context. Steensma and Corley (2000) argued that the negative relationship of uniqueness might be attributed to overconfidence in the technology and overestimating its value by acquiring its top management teams. Chung *et al*. (2018) further argue that a firm will likely select alliance partners who can complement its weakness and have a similar status. Moreover, the alliance context would influence the importance of factors in alliance formation. For example, complementarity is more important at a high level of process management and a low outcome interpretability level (Shah and Swaminathan, 2008).

The Resource-Based View (RBV) advances the concept of competitive advantage by utilizing the firm's resources which can either be intangible or tangible. According to the theory, firms enter into alliances to access resources owned by other firms in the market or industry, and such resources have been identified as a source of competitive advantage to network members. The theory also argues that for resources to be shared within an alliance, it depends on how solid the governance structures for intercompany cooperation are (Hansen *et al.,* 2018; Raphaël and Altante, 2019), such as partner selection criteria and cost management mechanisms which are fundamental to the current study.

2.3.4 Inter-Organisational Theory

The main question of the alliance's inter-organisational theories is how best to be organised by type of partnership. The hybrid nature of strategic alliances makes them challenging to analyse. Partners have their own goals, management styles and characteristics that might differ from those of the other partners (Wahyuni, 2003). The current research on strategic alliances embraces a range of perspectives, which offers insights on three main aspects of co-operative strategies: formation, control and inter-organisation learning process in strategic alliances (Lu & Burton 1998). The first important issue is the formation, operations and interaction between partners and the alliance entity. It has been noted that a partner's selection and negotiation outcome during the formation

stage subsequently influences the strategic alliance's performance. Child and Faulkner (1998) remind alliance partners to be aware of the importance:

a) the motive for allying;
b) the selection of partners to achieve compatibility between their goals, and
c) the need to interact between partner cultures and systems.

During the initial process of alliance formation, firms need to properly assess the congruence of their goal and the form of cooperation (Nooteboom, 1999). Moreover, interactions between the founding partners at this stage determine the initial alliance's structure and control mechanism and the configuration of skills and resources committed to the alliance operation (Yan and Gray 1994). The alliance partnership's success is likely based on task-related criteria closely related to the alliance operations' viability, such as experience, technology, resources, and product (Geringer, 1991, Geringer & Herbert, 1991). Parkhe (1993) vividly illustrated the dynamics of complex rational and behavioural processes over time. Much emphasis is placed on the internal decision-making process, the relationship between partners, and the interface between partner organisations and their environment, especially the host country's contextual constraints (Parkhe, 1993; Bleeke & Ernst, 1993).

2.3.5 Theoretical Application to Strategic Alliances

Transaction cost economics is closely related to agency theory and the resource-based view of the firm. Table 2.4 summarises some of the main features of these theories underpinning the study.

The resource-based view of the firm is premised on competitive advantage derived from the possession of valuable, rare, inimitable and nonsubstitutable ("VRIN") resources (Eisenhardt and Martin, 2000). The unit of analysis in the resource-based view is routines, and bounded rationality is an underlying human assumption. The key variables in the resource-based view are the VRIN attributes of resources (Pries, 2006). The resource-based view focuses on the usual activities and resources of the alliances needed to support a firm's competence and strategic direction (Tsang 2000). Thus, the first research question is what are main standard activities contributing to costs between strategic alliance partners?

Table 2. 2: Comparison of transaction cost, resource-based view and agency theories

Factors considered in SAs	Transaction Cost Theory	Resource Based Theory	Agency Theory
The basic question addressed by the theory	How do we get the governance right to minimize costs?	How to choose the right resources to generate and sustain wealth?	How do we get the incentives right to minimize the agency loss?
Key idea	Transactions with different attributes align with governance structures that differ in their costs and competencies in a cost-minimizing way	Maximizing long-run profits through exploiting and developing firm resources	Principal-agent relationships should reflect the efficient organisation of information and risk-bearing costs
Unit of analysis	Transaction	Routines	The contract between principal and agent
Human assumptions	Bounded rationality Opportunism	Bounded rationality	Self-interest Bounded rationality Risk aversion
Key variables	Asset specificity Uncertainty Frequency	VRIN attributes (valuable, rare, inimitable, and non-substitutable) of resources	Goal conflict Risk preferences Measurement difficulty
Motives for engaging in strategic alliance	Trust and mutuality	Opportunism	Minimize contract costs
Implications for choice of firm boundaries/governance structures	Minimize transaction costs	Maximize profit through developing and exploiting firm-specific VRIN resources	Minimize agency costs

Source: Derived in part from Eisenhardt (1989), Eisenhardt and Martin (2000), Mahoney (2005), Tsang (2000), Williamson (1999) and Pries (2006)

The key variables in agency theory are goal conflict, differences in risk preferences between principal and agent, and measurement difficulties related to the agent's effort. Agency theory is focused on the separation of ownership and control (Williamson, 2001). Its subsidiary application to the question of firm boundaries focuses on minimizing agency costs related to the transaction (Pries 2006) and underpins the second research question on how costs in strategic alliances should be measured. The three theories allow organisations to work together in a synergetic relationship that does not require them to merge into a single entity. This is critical for this study as the scope firms that are chosen are those that fit the description of inter-organisational relationships as a way

of coupling the assets of two separate entities to produce something of greater value. This underpins the third research question deals with the desired business performance such as cost efficiency, maximisation of resource utilisation and increased business profitability. Therefore, the third question was; what is a practical application of an enterprise cost conceptual model in a real-life project?

2.4 Main Standard Activities in Strategic Alliances

A strategic alliance lifecycle is a process, or structured approach, for alliances that an organisation follows to create successful collaborations. Most alliance life cycles are similar but often not the same since they adjust to the organisation using the lifecycle (Simmons, 2022). Several studies describe a step-by-step alliance lifecycle framework for alliance success. The frameworks identify the main standard activities contributing to strategic alliance partners' success (ASAP, 2021). These activities give rise to and contribute to costs between strategic alliance partners. In a related study, Estermann & Claeys-Kulik (2013) supported this view by defining a cost driver as any factor that causes a change in the cost of an activity resulting in the activity which consumes fewer or more significant amounts of resources. Furthermore, cost drivers should correctly show the relationship between a specific activity and cost objects. (Perčević & Dražić-Lutilsky, 2008; Dražić-Lutilsky & Dragija, 2012). The influence on the costs of an alliance in the early concept phase increase but decreases steadily as the alliance development progresses. The aim is, therefore, to achieve cost awareness as early as possible (Bodendorf, Lutz, Michelberger, and Franke, 2021). Niazi and Dai (2006) divide the methods for early cost calculation into qualitative and quantitative methods. Qualitative methods include intuitive and analogous methods. Quantitative methods can be divided into parametric and analytical approaches (Altavilla, 2018).

2.4.1 Life cycle models of Strategic Alliances

Several studies have given different perspectives on the following:

i. life cycle and activities of strategic alliances (e.g. Hwang and Park, 2007);
ii. a pattern of alliance formation and objectives across life cycle stages (e.g. Steinhilber, 2008);
iii. six stages from birth to death (e.g. Segil, 2005);
iv. from development to implementation (e.g. Adams, 2011);

v. Alliance framework from strategy through design to management (e.g. Ahouse, 2013); and
vi. from initial development to continuous development and improvement (e.g. Doz, 1996), alliances go through learning, re-evaluation, and readjustment sequences.

Hwang and Park (2007) investigated the determinant of strategic alliances according to an organisational life cycle framework and suggested a different alliance formation pattern and objectives across life cycle stages. Accordingly, Hwang and Park (2007) explained that an alliance's life cycle is characterised by four major stages: conception and development, commercialization, growth, and stability. In a related study, Steinhilber (2008) posited that any strategic alliance is born, grown, matured, and dies in six stages of the alliance life cycle as per Table 2.3.

Table 2. 3: Steinhilber alliance life cycle

Evaluating>	**Forming>**	**Incubating>**
Define strategy	Examine the partnering value proposition	Structure alliance governance
Analyse portfolio	Secure sponsor	Build a model for operations
Evaluate ecosystem	Finalise negotiations and agreements	Plan communication
Evaluate partner	Get counsel on intellectual property	Develop a partner engagement model
Build business case	Announce alliance	Finish marketing plan for the launch
Operating>	**Transitioning>**	**Retiring>**
Establish executive committees and boards	Review strategy and value proposition	Conduct management discussions
Develop a joint operating plan	Examine value curves and trends	Determine exit strategy
Establish alliance solutions and initiatives	Update strategy goals	Build exist plans
Launch field engagement and marketing	Confirm joint commitment	Define activities and timelines
Create metrics and performance reporting	Determine future investment	Create messaging

Source: Steinhilber (2008).

Segil (2005) broadened this by identifying activities involved in the life cycle of a strategic alliance from development to implementation. There is a distinction of roles between stakeholders as the alliance partners, management, external analysts and the marketplace, other corporate functions in

each company, and the alliance group and individual alliance managers (Segil, 2005). Figure 2.5 shows Segil's alliance metrics in the alliance life cycle.

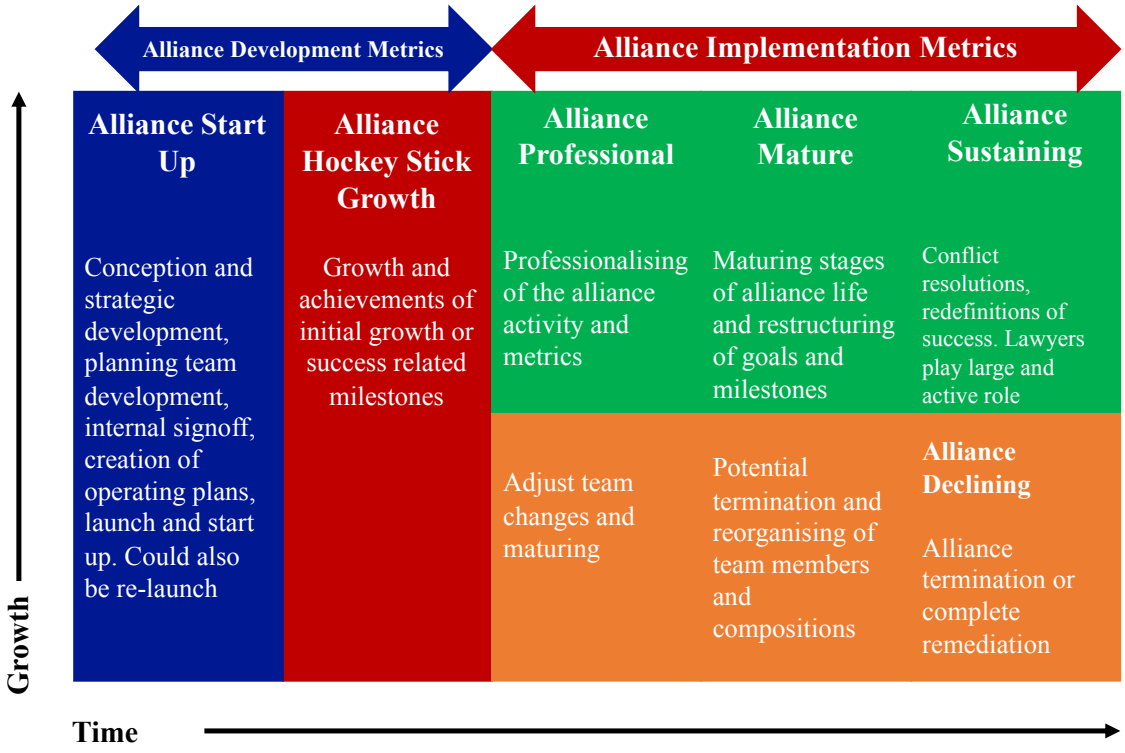

Figure 2. 5:Strategic alliance metrics in the life cycle

Source: Segil (2005).

Identifying the life cycle stage and culture is not always enough to develop the specific metrics to apply to an alliance. Segil (2005) contended that viewing development metrics and implementation metrics as categories at the top of a pyramid structure of metric categories and specific sub-metrics can help refine those most effectively measured.

Similarly, Adams (2011) argued that companies face increasing market pressures and demand more and faster responses from alliance experts. In response to these demands, Adams (2011) proposed an alliance lifecycle framework that he contended was a tool to provide context when assessing the importance and structure of a formal alliance framework. He identified seven life cycle stages that an alliance goes through, as diagrammatically depicted in Figure 2.6.

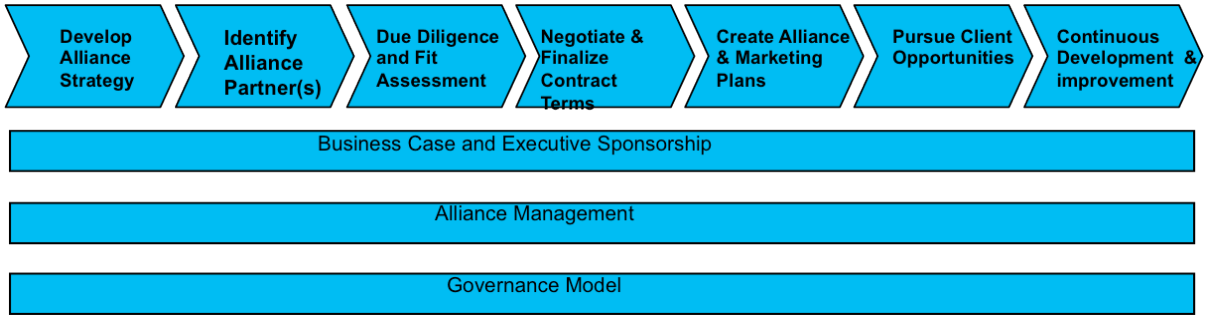

Figure 2. 6: Adams strategic alliance framework

Source: Adams (2011).

Adams (2011) stressed that creating a blueprint for an organisation's desired business outcomes was essential. Alliances constantly need to be evaluated and managed to maintain relevance and ensure they support the business goals and objectives.

It is equally important to select alliance partners based on the alliance strategy's objectives rather than on an ad hoc basis in the second stage. Adams (2011) argued that if they are not linked to and supported by the strategy and business needs, there will be less chance the alliance will be successful or meet the business requirements. Bamford *et al*. (2007) argued that the business strategy must shape its alliance strategy and, ultimately, the design of every alliance.

As identified in other studies (e.g. Steinhilber, 2008; Segil, 2005; Hwang and Park, 2007), Adams (2011) concluded that for the alliance to be successful, this should be supported by:

- Business Case and Executive Sponsorship: No alliance can secure investment or commitment without a strong business case. Alliance sponsors play an important role in assuming accountability and fully supporting the alliance.
- Alliance Management: Alliance management plays a key role in defining, establishing, building and maintaining the relationship with the alliance partner.
- Governance Model: A strong governance model is critical to building an effective working relationship and maximizing the alliance's performance. Governance provides the playbook for driving and sustaining the value of the alliance.

Furthermore, Ahouse (2013) developed the Association of Strategic Alliance Professionals (ASAP) framework that identifies seven phases of an alliance cycle, as shown in Figure 2.7:

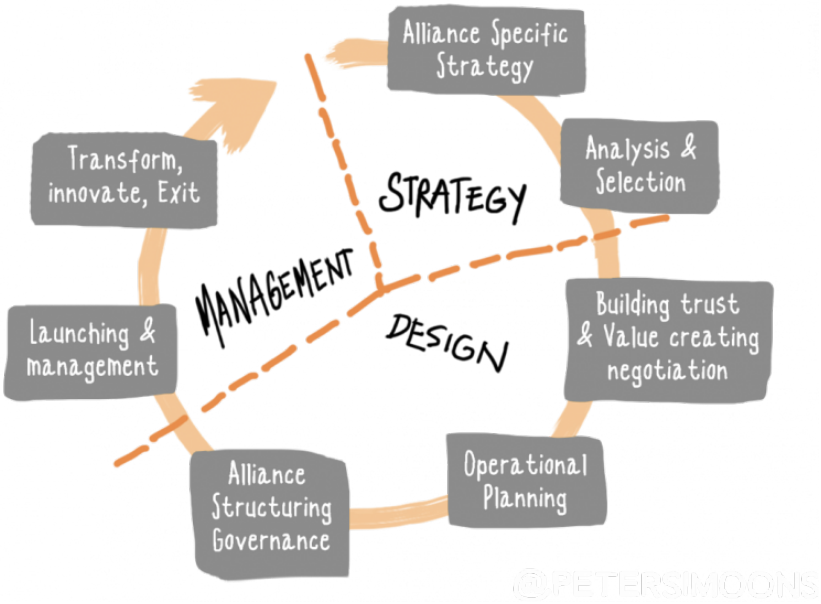

Figure 2. 7: ASAP life cycle framework

Source: Ahouse (2013)

In the ASAP life cycle framework, Ahouse (2013) contends that an alliance would continue through seven stages in its life as follows:

Phase 1 - Alliance-Specific Strategy;

Phase 2 - Analysis and Selection;

Phase 3 - Building Trust and Value-Creating Negotiations;

Phase 4 - Operational Planning;

Phase 5 - Alliance Structuring and Governance;

Phase 6 - Launching and Managing; and

Phase 7 - Transform, Innovate, or Exit Gracefully.

In a prior related study, Doz (1996) points out that the initial conditions do not solely determine alliances' outcomes. Instead, alliances go through sequences of learning, re-evaluation, and readjustment. Initial conditions are viewed to set the stage by either fostering or blocking learning in the alliance. Doz argues that often "early 'small' events in an alliance have a disproportionate

importance in establishing, or not, a self-reinforcing cycle of heightened efficiency expectations, greater institutional and personal trust and commitment, joint sense-making and learning, and greater flexibility and adaptability" (Doz, 1996: 77). The process model that Doz (1996) develops is depicted in Figure 2.8:

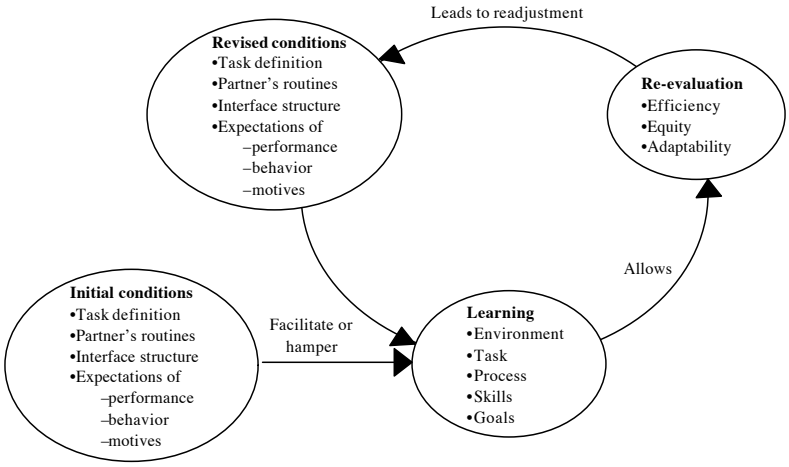

Figure 2. 8: Doz process of alliance evolution framework

Source: Doz (1996).

2.4.2 Integrated Strategic Alliance life cycle framework

Based on studies reviewed in this literature regarding the phase and activities of an alliance cycle, it has been observed that different scholars have categorised the alliance cycles in stages ranging from three to seven. However, the current study compares and highlights congruence areas resulting in the eight alliance cycle stages. This is depicted in Table 2.4.

Table 2. 4: Analysis of strategic alliance cycles by different authors

No	Alliance Phase	Hwang &Park (2007)	Steinhilber (2008)	Segil (2005)	Adams (2011)	Ahouse (2013)	Doz (1996))	Current Research Categorisation
1	Develop alliance strategy				√	√		Alliance start-up and strategy
1	Learning						√	
1	Alliance start up			√				
1	Conception & development	√						
1	Evaluating		√					
2	Identify alliance partner				√			Alliance partner forming
2	Forming		√					
3	Due diligence and fit assessment				√			Alliance Due Diligence
3	Re-evaluation						√	
4	Negotiate & finalize contract terms				√			Alliance contracting
4	Incubating		√					
4	Building trust & value-creating negotiation					√		
5	Create alliance & market plan				√			Alliance Execution
5	Professional alliance			√				
5	Commercialization	√						
5	Operating		√					
5	Operational planning					√		
5	Alliance structuring & governance					√		
6	Pursue client opportunities				√			Alliance Growth
6	Re-adjustment						√	
6	Alliance growth			√				
6	Growth	√						
6	Transitioning		√					
7	Launching & management					√		Alliance Stability & Maturity
7	Alliance mature			√				
7	Stability	√						
8	Alliance sustaining			√				Alliance Sustaining/ Retiring
8	Transform, Innovate or Exit					√		
8	Retiring		√					

Source: Adapted from Ahouse (2013), Steinhilber (2008); Segil (2005), Hwang and Park (2007), Adams (2011), and Doz (1996)

These eight emerged stages are adopted as the new harmonised life cycle of a strategic alliance:

i. Alliance start-up and strategy,

ii. Alliance partner forming,

iii. Alliance Due Diligence,
iv. Alliance Contracting,
v. Alliance Execution,
vi. Alliance Growth,
vii. Alliance Stability & Maturity; and
viii. Alliance Sustaining/Retiring.

Accordingly, the current research considers these eight stages in the life cycle as part of cost drivers. This is in tandem with Fong and Kumar (2002), who argued that Life cycle costing should not be considered a one-off task but should be recognised as an ongoing activity throughout the life cycle to evaluate all changes and exploit cost-saving opportunities.

When institutionalizing development and implementation metrics, it is important to consider what metrics matter most to every alliance's primary stakeholders (Segil, 2005). Critical examination and analysis of company cost activities are important in classifying costs into those based on organisational or operational activities (Fong and Kumar, 2002). Moreover, Fong and Kumar (2002) concluded that a clear conceptual view is needed to classify and measure overhead costs correctly. Conceptualising and establishing a strategic alliance management cycle framework with supporting umbrella processes and tools helps increase the alliance's success and effective cost management. These arguments and conclusions of necessity to identify the alliance life cycle phases and using them as cost drivers in developing an enterprise cost conceptual model are essential in answering the first research question i.e.

> ***RQ1****: What main standard activities contribute to costs between strategic alliance partners?*

Alternatively, the research proposition; is therefore proposed that:

> ***RP$_1$:*** *There are no specific main standard activities that give rise to costs between strategic alliance partners.*

2.5 Enterprise Cost Approaches in Strategic Alliance

Dekker (2003) contended that inter-firm relationships introduce new management accounting challenges with a rise in strategic alliances. One such challenge is providing information for

coordinating and optimising activities across firms in alliances. Management literature suggests that partners in strategic alliances share resources, costs and risks, among other things (Al-Dhubaibi, 2021; Borch, Huse, & Senneseth, 1999). However, Das & Teng (2002) acknowledge that such sharing increases transaction costs that positively correlate with environmental dynamism. The costs include partner opportunism, coordination costs, equity hostage and dependence, among others. Lee (2014) extended this argument that these costs, under certain conditions, can exceed benefits provided by strategic alliances and may even make the partnership undesirable if the costs are not accurately captured and measured. Thus, the second research question emerges as to how should costs in strategic alliances be measured. The literature in this section critically reviews the cost techniques and approaches, cost modelling assumptions and principles and methodology in building cost models.

Firms use the methods and theories of inter-organisational relationships in the value chain to manage shared costs (DhaifAllah, Auzair, Maelah and Ismail, 2016). In cost management efforts from a strategic alliance relational perspective, firms must also pay attention to their internal and relational activities with their business partners (Chassagnon, 2014). Cost management is a set of techniques and methods for planning, measuring, and reporting intended to improve a company's products and processes (Maiga, 2017; Tekavcic and Sink, 2002). The ultimate purpose of cost management is to provide information that firms need to provide customers with value. Accounting theorists agree that no comprehensive accounting theory has yet to be developed. Without such a theory, whether sufficient accounting principles are created through accounting research arises. Coetsee (2010) acknowledged that accounting principles are not solely the result of academic research and that current accounting practice, through its standard-setting process, contributes far more to the development of accounting principles. Earlier on, Coase (1990) contended that the accounts could be a valuable data source on firm behaviour. His argument followed that their use could greatly assist in developing a theory of the firm. He further argued that a theory of the accounting system is part of the theory of the firm. Lately, Coase's view has been generally recognised, and there has been growth in interdisciplinary studies between economics and accounting to support this view (Coetsee, 2010).

2.5.1 Costing systems and approaches

Cost management is one of the essential prerequisites for the success of any business entity, regardless of its configuration (Mazbayeva, Barysheva, Saparbayeva, 2022). The literature identifies different fragmented cost management approaches for capturing and measuring organisational costs. Omotayo (2017) summaries the top twelve techniques involved in strategic cost management as Activity Based Costing (ABC), Target Costing (TC), Total Quality Management (TQM), Benchmarking, Business Process Reengineering (BPR), JIT Inventory Control System, Balanced Score Card, Kaizan Costing, Six Sigma, Life Cycle Costing (LCC), and Theory of Constraints (TOC). The costs in strategic alliances could be financial or non-financial. It becomes easier to set performance targets and work towards accomplishing the scope of cost in the business. Therefore, alliance managers must possess critical cost management skills to deliver results within the scheduled time and cost (Iqbal, Omar and Yasin, 2019).

Of the different cost management systems, several studies point out the popularity of ABC and LCC systems (Rankin, 2020; Shank and Govindarajan, 1993; Alan, 1995; David and Robert, 1995; Booth, 1996). According to Innes and Mitchell (1990), ABC provides process control information. A measure of each activity's volume (cost driver) is used to generate a cost rate for estimating production cost and as a performance measure for the activity concerned. Life cycle costing is another approach that is an economic analysis method for all costs related to building, operating, and maintaining a project over a defined period (Arabzadeh, Niaki, and Arabzadeh, 2018). Life cycle costing represents a methodology for forecasting, analysing, designing and developing not only costs and profitability but also the levels of quality, functionality and time to market by considering the whole life cycle of an alliance. Differently from traditional management accounting, by forecasting committed costs of new products and services in all stages of the life cycle, life cycle costing allows us to evaluate the product–service profitability, the strategic impact of various alternative choices, most relevant cost drivers, opportunities and risks (Pistoni and Songini 2017).

The development of the ABC and LCC concepts is meant to respond to demands for better cost approaches for business performance measurement that incorporate financial and non-financial costs (Rankin, 2020). Despite all these developments, the financial control of strategic alliances is still a dominant dimension in an alliance's governance. In this regard, cost estimation in the early

stages dictates the investment decisions, although, at the early stages, there is a significant risk surrounding the estimation, given the technical uncertainty. Therefore, more accurate cost forecasting in the early stages of the alliance's development and better quantification/understanding of cost deviations are among the key concerns of any alliance manager (Monteiro, Sousa, Meireles, & Cruz, 2021). This study proposes a cost conceptual model that can overcome such concerns. Enterprise Cost Management (ECM) techniques provide collaborative approaches to reducing costs. Through strategic ECM, companies can align corporate strategy and functional area execution, allowing them to formalise goals, establish accountability metrics and tracking to ensure timely plan completion and drive external collaboration with multiple groups like partners and suppliers (CGN Global, 2013). Using such an approach enable organisations engaged in alliances to realise benefits such as:

i. a structured approach to help to manage cost;
ii. visual depiction of the supply chain, purchasing and product assembly;
iii. the total cost of ownership (TCO)-based decision-making;
iv. enhanced spend analytics accelerate analysis; and
v. risk-sharing implementation structure.

The need for new systems and approaches is supported by Gunasekaran *et al.* (2005), who argued that:

i. traditional costing systems do not provide sufficient non-financial information;
ii. existing product costing systems are inaccurate;
iii. current costing systems do not encourage improvements; and
iv. overhead costs are predominant.

In developing cost systems and models, principles, assumptions and methodologies in building cost models must be explored and considered.

2.5.2 Cost Modelling Assumptions and Methodology in Building Cost Models

Ask and Laseter (1998) stated that cost modelling was critical even if a company has not found the balance between cooperation and competition. When applying a Darwinian Rivalry framework (1996), a company negotiates ruthlessly with suppliers. Cost models can provide the understanding

needed to squeeze supplier margins to the bare minimum. Ask and Laseter (1998) considered the research and client experience by Booz-Allen & Hamilton that indicated that the cost model developed in cooperation with suppliers is the most effective. Collaborative development improves the quality of the model by capturing supplier insight. More importantly, Ask and Laseter stressed that a jointly developed model is more likely to be fully applied when conducting a cost analysis. The concept of total cost analysis was developed in the 1980s by external consultants of the Gartner Group to evaluate alternative investment decisions. This concept is known under the term Total Cost of Ownership (TCO) and encompasses all hidden, resulting and visible costs associated with the acquisition and subsequent use of a product or service from a supplier (Stollenwerk, 2016). According to Ellram (1995), the application of TCO enables the transparent breakdown of part-related additional costs for purchased items. TCO is not only an analytical approach for strategic procurement but a philosophy with two major approaches to determining TCO, which are dollar-based and value-based ways of proceeding (Ellram, 1995). The dollar-based method considers actual costs and allocates cost data for each relevant TCO element. The approach is suitable for high-value parts, and the results are precise and easy to interpret. A value-based TCO model also contains non-monetary factors and information of a supplier assessment that can be useful for assessing partners' total cost ownership (Schmidt, 2019).

Ask, and Laseter (1998) further illustrated McDonald's Corporation, which has worked with suppliers to develop a sophisticated model to optimise chicken costs over the years. The model captures expected mortality rates and weight gains to determine the optimal breed mix under various humidity and space allocation conditions. Also, by modelling how feed mix affects weight gain and mortality, suppliers can adjust feeding programs to optimise weight gain in response to commodity-feed price changes. Such a model provides a competitive advantage for McDonald's. Although cost models generate much interest in most organisations, the term "cost model" can create confusion because it can mean various things, and the models can have different purposes. Ask and Laseter (1998) segmented the modelling design into three levels. At a corporate level, they exemplified how a high-level understanding of a purchased product's direct labour content and shipping economics could result in a strategy to develop suppliers in a low-wage country such as China. A more detailed cost model could be used to choose between two suppliers of the same materials at a tactical level.

Finally, a model that documents set-up costs could be used at an exceptional level to determine optimal order quantities. Regardless of the immediate purpose of a cost model, five fundamental principles should be considered to create more accurate and robust cost models for goods and services. Based on the work of Ask and Laseter (1998), the current research cost modelling and frameworks principles as presented diagrammatically in Figure 2.9:

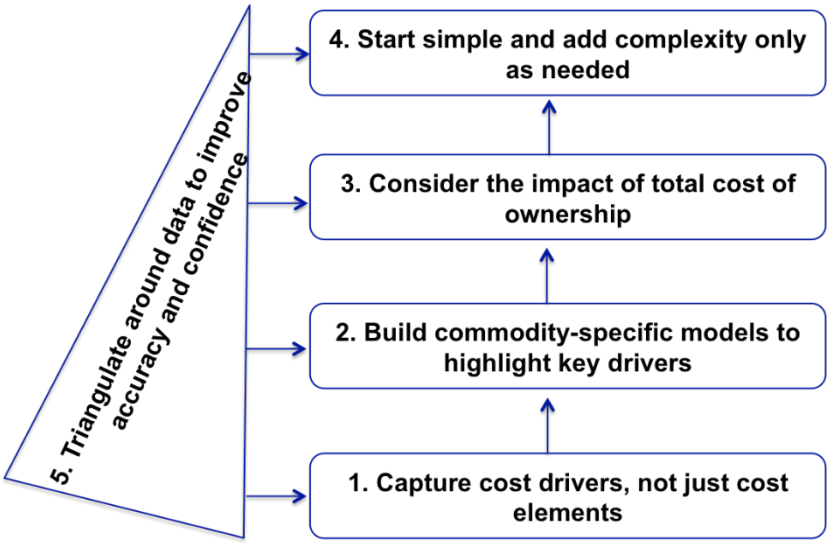

Figure 2. 9: Cost framework development conceptualisation

Source: Ask and Laseter (1998)

Applying the Ask and Laseter principles above ensures maximum benefit from cost modelling. The best models meet Einstein's test for his theories: as simple as they can be, but no simpler. To develop cost models systematically across an organisation, ensuring that everyone working with the alliance understands the essential cost drivers is far more critical than having an exact model for determining part-level costs. Accordingly, Ask and Laseter's (1998) methodology described a process for developing the capability by beginning simply and advancing over time. An alliance can quickly develop a sophisticated framework by concentrating resources and approaching the problem systematically. The current literature gives evidence of fragmented cost approaches in single organisations. However, it is void of sufficient integrated cost approaches that are enterprise-wide for capturing and measuring costs in strategic alliances to address this gap; the current study asks:

***RQ2**:How should cost in strategic alliances be measured?*

Alternatively, the research proposition; is therefore proposed that:

> ***RP$_2$:*** *There are no specific approaches that are required to measure costs in strategic alliances.*

2.6 Strategic Alliances in Practice

The business environment is changing faster than ever due to rapid technological evolution, a saturation of existing marketplaces and the emergence of new markets and business models (Foroohar, 2018). Bustinza *et al.* (2019) attributed this pace to the alliance's ability to facilitate entry into new markets, achieve increased economies of scale and a broader scope of activities, and facilitate research and development. Several studies have claimed strategic alliances helped meet growth objectives and strengthen the potential for lucrative returns and identified significant positive stock market reactions to the announcements of the formation of strategic alliances (He, Meadows, Angwin, Gomes, and Child, 2020; Chan, Kensinger, Keown and Martin, 1997; Chiou and White, 2005; Gleason, Mathur and Wiggins, 2003; McConnell and Nantel, 1985). Further studies indicate that alliances have become essential tools for a company to gain a competitive edge, but there are also performance concerns about the sustainability of these strategic alliances (Arranz, Arroyabe and Arroyabe, 2017; Balboni, Marchi and Vignola, 2017; Kohtamäki, Rabetino and Moller, 2018; Thomson Reuters, 2013). Among the concerns are limited tools to quantify the benefits of strategic alliances (Canzaniello, Hartmann and Fifka (2017). Over the past three decades, strategic alliances have attracted substantial global attention from industry and academia (e.g. Child *et al*., 2019, Das, 2006, Devlin and Bleackley, 1988). For instance, in South America, Brazil's Embraer, the world's largest commercial jet manufacturer, is an excellent example successful strategic alliance. As shown in Figure 2. 10, Embraer has nine partners directly involved in the plane's manufacture. The company has industrial operations and customer service facilities in Brazil, China, France, Portugal, Singapore, and the U.S. (www.embraer.com.br). Figure 2.10 shows the alliances' involvement in manufacturing the Embraer jet.

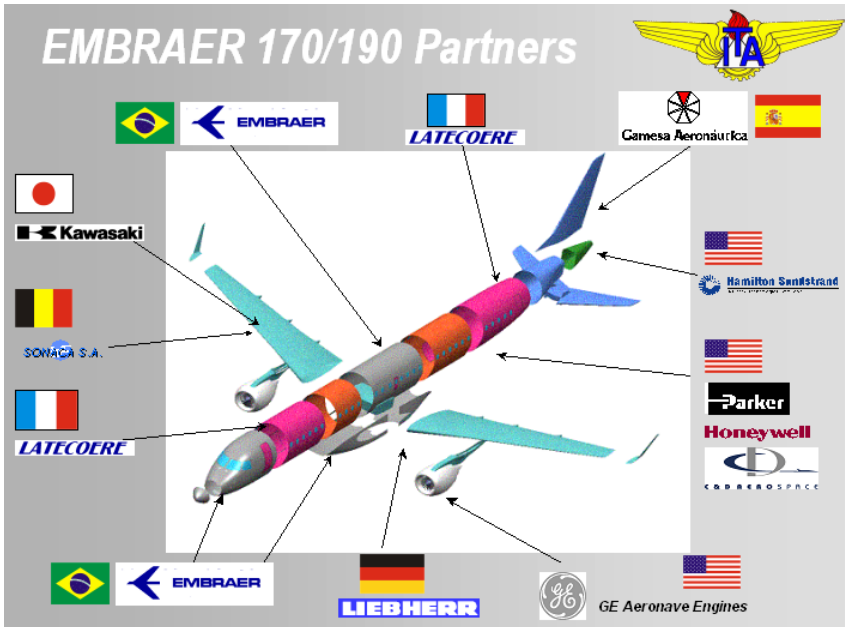

Figure 2. 10: Alliances involved in the making of Embraer

Source: Vasconcellos, Bruno, Campanário and Noffs, (2009).

There has been a rise in strategic alliances in the last decade in Africa, which mirrors the global rise. An example of the increasing trend would be in the airline industry. More than 40 world's largest airlines are global alliance members and control 73.1% of the market share (Chingosho, 2017). The empirical setting for this study is the telecommunications sector. Telecom operators in Africa also form alliances locally and regionally. For instance, the MTN Group has a deliberate policy to foster African alliances. The MTN Group has structured its African alliance management, as illustrated in Figure 2.11. The KPMG report (2012) advanced that International strategic alliances were proliferating in the telecommunications sector, both in manufacturing (equipment) and services, with the expansion of the world information and communication technologies (ICT) market at an average rate of 7%. In Zambia, the telecommunication sector growth mirrors the continental trend. Underlying the increased popularity of alliances are two critical changes. The first is the globalisation of telecommunications markets; the second is the increasing importance of software relative to telecommunications equipment hardware. These factors interact with the presence of enormous economies of scale to make most national telecommunications markets too small to support the level of R&D required to develop new equipment (Hausman, 1997).

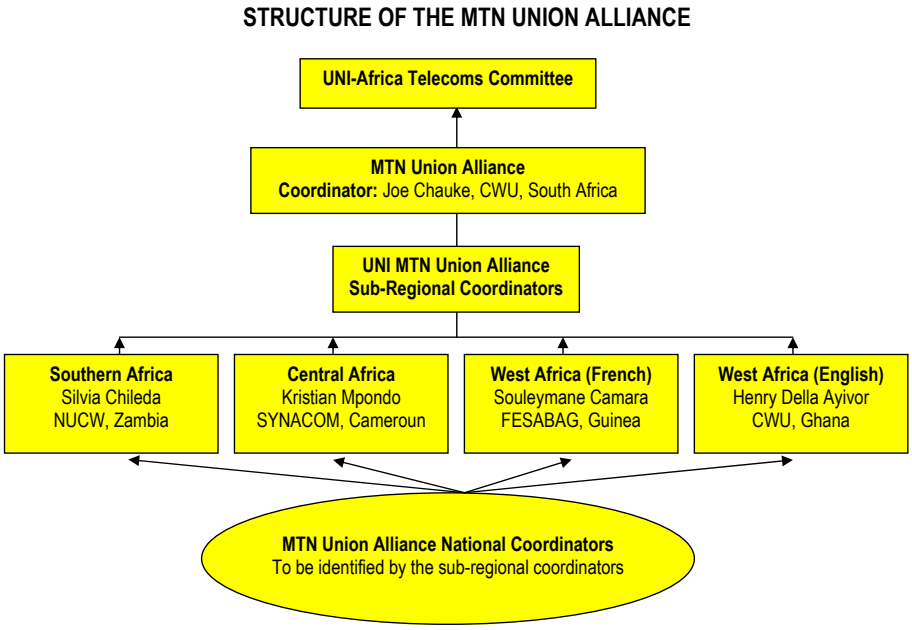

Figure 2. 11: Alliance structure of the MTN Union

Source: MTN (2018)

2.6.1 Alliance benefits

In recent decades studies have shown the benefits of strategic alliances as a strategic tool supporting improved organisational performance across a range of functions (Hoang and Rothaermel, 2010; Chuang *et al.,* 2018; O'Dwyer and Gilmore, 2018). Strategic alliances might be seen as cooperation arrangements between two or more companies that share reciprocal resources to achieve improved competitive performance by sharing resources while maintaining their own corporate identities (Robson *et al.,* 2019). Ferreira, Coelho and Moutinho (2021) summarised some of the benefits of forming strategic alliances that include providing firms with knowledge, technology, human resources, market sharing (Ho *et al.,* 2019); helping companies to improve their innovation capacity and bring new products to market (Bouncken *et al.,* 2019); which in turn may enhance performance and competitiveness (Huda *et al.,* 2019). Other authors (e.g. Lo *et al.,* 2016; Silverstri and Veltri, 2017; Schweitzer, 2014); also added that firms engaged in a strategic alliance benefit from learning and acquiring marketing, managerial, innovation and production skills which facilitate creativity and enhance innovation.

2.6.2 Success and Risk Factors

Several studies highlight success factors in a strategic alliance. Krathu *et al.* (2015) reviewed 177 publications dealing with factors influencing inter-organisational relationships (IORs). Krathu *et al* .classified success factors into five primary constructs: Relationship orientation, Relational capital or social capital, Relational norms and atmosphere and Others: Others are those factors that do not have any significant similarities and that cannot be grouped have been identified. These dimensions are compatibility, commitment, top management support, relationship learning, contract, investment, complementarity and opportunism (Cheung *et al.,* 2010; Liu *et al.,* 2012; Gil-Saural *et al.,* 2009).

Fulton *et al.* (1996) assessed several hypotheses concerning the success of cooperative business arrangements, and the most-cited success factors were: trust; commitment; managers who work well together; agreements in which the benefits of joint efforts are visible; good, open communication; not intruding on the business territory of others, and staying involved in the business agreement. In another related study, Vandeburg *et al*. (2000) examined the relative importance of factors in the success of business arrangements. The results showed that the critical success factors related to interpersonal dynamics: are trust, communication, commitment and managers who can work together as a team. Both cited studies concluded that factors such as trust, commitment, communication and managers' relationship are crucial for the success of alliances. Furthermore, Mazzarol *et al*. (2013) studied different cases of strategic networks formed through cooperatives in Australia and France. They found that maintaining the network's unity and stability requires fostering a shared sense of purpose and the cooperative's commitment to delivering value to the members. There are several similarities between success factors in alliance literature. However, limited literature on how these have been operationalised in managing a real-life project (Bastida, Marimon, Tanganelli, 2017).

Although strategic alliances have become a global business trend and offer competitive advantages for international firms, many studies revealed that the maintenance of the success of a strategic alliance is challenging because the implementation of the collaboration is often encumbered with risks and high uncertainties (Yan and Lee, 2021; Lodhi *et al*., 2017; Russo and Cesarani, 2017). The failure rate of strategic alliances has been estimated to be 50% to 80% (Madhok *et al.,* 2015; Russo and Cesarani, 2017). Several reasons for this low success rate are a lack of familiarity,

understanding and proper communication among alliance partners (Mahamid, 2017; Russo and Cesarani, 2017). Lodhi *et al.* (2017) observed the importance of risk management among members in strategic alliances. Much literature has identified risks associated with strategic alliances, but very little work has considered risk management in strategic alliances (Yan and Lee, 2021). Expanding on Madhok *et al.* (2015), the considerably high failure rate suggests that companies often lack the knowledge and skills to determine strategic fit, negotiate win-win agreements, align organisational cultures, poor costing systems and most importantly, get people to work together productively (Russo and Cesarani, 2017).

2.6.3 Performance Metrics in Strategic Alliances

Corporate performance is a composite assessment of how well an organization executes on its most important parameters, typically financial, market and shareholder performance (Carton, Robert and Hofer 2006). Corporate performance analysis is a subset of business analytics and business intelligence that is concerned with the health of an enterprise, which has traditionally been measured in terms of financial performance (Torres, Sidorova and Jones, 2018). Strategic alliances pose some unique challenges when it comes to performance measurement, and these have a great deal to do with the process by which metrics are developed and by which they are implemented. Hughes (2002) argued that alliance metrics must be created and used in a context that, by its nature, crosses both external and internal organisational boundaries and suggested six principles that should be observed in designing alliance performance metrics:

i. Ensure comparability of metrics across alliances;
ii. Define and discuss metrics with alliance partners;
iii. Ensure clarity around implications of alliance performance;
iv. Implement a process for auditing alliance performance;
v. Link alliance performance with individual performance evaluation; and
vi. Create a forum for reviewing and acting on alliance performance data.

Chan *et al.* (1997) argued that strategic alliances improve a firm's performance as they tend to exhibit better operating performance than the same industry firms, not strategic alliances, while Mohanram and Nanda (1996) concluded that firms experience performance deterioration before joining alliances. Furthermore, Marciukaityte *et al*. (2009) examined operating performance before

and after alliances and cooperation between partners after a collaboration. In a related study by Coopers and Lybran (1997), firms involved in alliances had 11% higher revenue and a 20% higher growth rate than companies not engaged in alliance activity. The results were that firms showed better performance having entered into strategic alliances. These positive performances do not just happen by luck; an alliance should be effectively structured and managed to create value for the firm (Segil, 1998).

A strategic performance measurement system translates business strategies into deliverable results that combine financial, strategic and operating measures to gauge how companies meet their targets (Gunasekaran *et al.,*2005). Further, they argued that Performance-Based Cost systems focus on performance (financial and non-financial) rather than activities, which avoids distorted product cost information produced by applying traditional costing systems in the virtual enterprise/supply chain environment. Based on the premise that PBC provides more accurate cost information. The current research identifies the business areas that add value to an alliance and accurately estimates product costs. The product cost depends on the value-added and costs incurred in those areas (Gunasekaran *et al.,* 2005). Figure 2.12 presents the steps involved in establishing a PBC system. Product cost accuracy depends upon the costs of value creation areas and corresponding drivers.

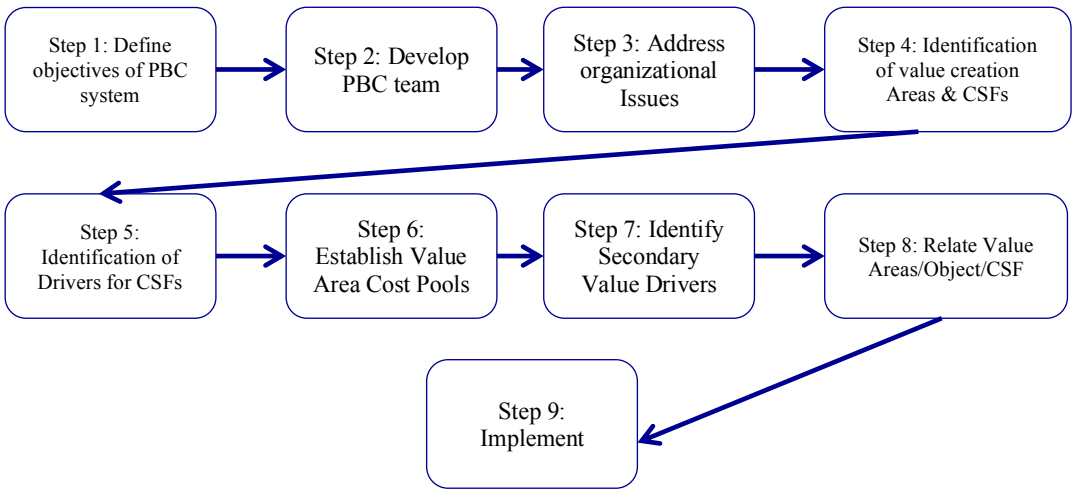

Figure 2. 12: Steps in Performance Based Costing

Source: Gunasekaran *et al.* (2005).

From the literature review, several empirical studies revealed similarities between success and risk factors in an alliance. However, there is limited evidence on how these can be operationalised in managing a real-life project. Considering the main standing activities that give rise to costs and costs approaches, the study further interrogated literature on the practical application in terms of alliance in practice and trends, alliance benefits, risk and success factors of a structured approach to managing a real-life project. It further emerged that the challenges and gaps identified in current literature underscore the need for research that can provide insights into how strategic alliances can be successful (Bastida, Marimon, Tanganelli, 2017). Thus, the third research question, which is;

> ***RQ3:*** *What is the practical application of an enterprise cost conceptual model in a real-life project?*

Alternatively, the research proposition; is therefore proposed that:

> ***RP$_3$****: The lesser application of the appropriate enterprise cost conceptual model in a real-life project, the lower its corporate performance.*

2.7 Summary of Emerging Issues from Literature and Gaps Identified

Table 2.5 summarises emerging issues on the concept of ECM, their contribution to the study of strategic alliances, and the gaps and limitations of previous studies.

Table 2. 5: Summary of previous research and gaps identified

Author & Studies	Concept of ECM in strategic alliances	Contribution to the study of Alliances & Issues discussed	Methodology	Gap/Limitation of Previous Studies
Masoud *et al.* (2020). Efremov and Vladimirova (2017)	Nature and definition of Strategic Alliances	The Strategic Alliance is one of the most common organisational forms of inter-firm integration based on agreements of long-term cooperation of two or more independent business structures for their joint strategic goals implementation based on a synergy of their combined and complementary resources (Masoud *et al.* 2020). There is no single definition for a strategic alliance, but Efremov and Vladimirova (2017) argued that the term "strategic alliances" means various forms of a partnership of business entities, which represent a transitional form between the market and non-market transactions.	Integrative review methodology	No single definition of a strategic alliance exists. In some cases, mergers and acquisitions were referred to as strategic alliances. The current study proposes a working definition based on a review of a wide range of literature.
(Schilke &	Strategic alliances are	Further, strategic alliances are inter-	Exploratory studies	While there is evidence

Author & Studies	Concept of ECM in strategic alliances	Contribution to the study of Alliances & Issues discussed	Methodology	Gap/Limitation of Previous Studies
Goerzen, 2010). Schepker, Oh, Martynov, & Poppo, 2014)	inter-organisational relationships that allow otherwise independent firms to share a variety of resources	organisational relationships that allow otherwise independent firms to share various resources (e.g., Schilke & Goerzen, 2010). Schepker, Oh, Martynov, & Poppo, 2014) expanded on this view that the contracts used in these alliances are a central mechanism governing the interfirm exchange.		from these studies that contracts used in alliances are a central mechanism for governing the interfirm exchange, there is a divergent view that contracts may not be critical in other forms of alliances.
Elmuti and Kathawala (2001) Rwelamila (2007) Young and Samson (2006)	Strategic alliances are projects.	While strategic alliances are famously viewed as inter-organisational relationships, Elmuti and Kathawala (2001) referred to strategic alliances as projects. Rwelamila (2007) proposed a three-dimensional look into project success factors in a related study. He argued that project success is defined by delivering a project within time, cost, quality and schedule whilst managing	Exploratory s and Case studies	Despite these project success parameters and studies by Nicholas and Steyn (2008) and Elmuti and Kathawala (2001), enterprise cost management approaches which are key to alliance success during planning, development and execution, have not fully

Author & Studies	Concept of ECM in strategic alliances	Contribution to the study of Alliances & Issues discussed	Methodology	Gap/Limitation of Previous Studies
		all project stakeholders.		been developed.
Simmons, (2022). (Perčević & Dražić-Lutilsky, 2008; Dražić-Lutilsky & Dragija, 2012).	A strategic alliance lifecycle is a process, or structured approach, for alliances that an organisation follows to create successful collaborations. Cost drivers should correctly show the relationship between a certain activity and cost objects.	Most alliance life cycles are similar but often not the same since they adjust to the organisation using the lifecycle (Simmons, 2022). These activities give rise to and contribute to costs between strategic alliance partners. Estermann & Claeys-Kulik (2013) supported this view by defining a cost driver as any factor that causes a change in the cost of an activity resulting in the activity which consumes fewer or greater amounts of resources.	Exploratory studies	Several studies argue that cost drivers should correctly show the relationship between a certain activity and cost objects but not structure or framework proposed on how this could be done
Hwang and Park (2007); Steinhilber, (2008);	Several studies have given different perspectives on alliance life cycles	i. life cycle and activities of strategic alliances ii. a pattern of alliance formation and objectives across life cycle stages;	Exploratory studies	Based on studies reviewed in this literature regarding the phase and activities of an alliance cycle, it has been observed that

Author & Studies	Concept of ECM in strategic alliances	Contribution to the study of Alliances & Issues discussed	Methodology	Gap/Limitation of Previous Studies
Segil (2005); Adams (2011); Ahouse (2013); Doz (1996)		iii. six stages from birth to death; iv. from development to implementation ; v. Alliance framework from strategy through design to management; and vi. from initial development to continuous development and improvement, alliances go through learning, re-evaluation, and readjustment sequences.		different scholars have categorised the alliance cycles in stages ranging from three to seven. A noticeable gap is that no comprehensive and integrated life cycle exists that the current study compares and highlights congruence areas that result in the eight stages of the alliance cycle
Blom, Haaland, Johnsen (1998)	Developing Sustainable Strategic Alliances	Blom *et al.* (1998) posited that the purpose of strategic alliances is to combine two or more companies' strengths. They cited that recent studies show that many strategic alliances fail. Attention to cost management through an alliance's life was cited as one of the causes.	This thesis's results were based on current practice from a survey executed in Calgary, Canada's Oil & Gas industry. The Delphi Method concept was used to conduct a	The major problem and success areas with strategic alliances were identified and ranked, and the results emphasized human aspects, the establishment of the strategic alliance and

Author & Studies	Concept of ECM in strategic alliances	Contribution to the study of Alliances & Issues discussed	Methodology	Gap/Limitation of Previous Studies
		Their research results are based on current practice from a survey executed in Calgary, Canada's Oil & Gas industry. Based on the achieved results, twenty guidelines for making strategic alliances more sustainable were developed and presented according to the alliance life cycle.	qualitative study over three rounds; one round of questions, one round of prioritising the answers and a final workshop.	maintenance. Based on the achieved results, twenty guidelines for making strategic alliances more sustainable were developed and presented according to the alliance life cycle. However, the cost management was not covered.
Dyer, Kate and Singh (2001)	Developing a dedicated alliance function is key to building the expertise needed for competitive advantage.	Dyer, Kate and Singh (2001) pointed out that the top global businesses have an average of 60 major strategic alliances each. Nevertheless, alliances are fraught with risk, and almost half fail. Hence the ability to form and manage them more effectively than competitors can become an important source of competitive advantage. They found	Dyer *et al.* conducted an in-depth study of 200 corporations and their 1,572 alliances. This included an interview of executives at these companies with dedicated alliance functions in their set up and those that did not.	To estimate incremental value creation for each company, Dyer et al. built a model to predict stock prices based on daily firm stock prices for 180 days before the alliance announcement. However, this study did not extensively discuss

Author & Studies	Concept of ECM in strategic alliances	Contribution to the study of Alliances & Issues discussed	Methodology	Gap/Limitation of Previous Studies
		that a company's stock price jumped roughly 1% with each announcement of a new alliance, which translated into an increase in the market value of $54 million per alliance. The study postulated that one reason for alliance failure is the inability of a partner or another to mobilise internal resources to support the initiative.	To assess the long-term success, the study collected survey data on the primary reasons each alliance was formed.	cost management and its contribution to value creation.
Holmberg and Cummings (2009)	Strategic Process and Analytical Tool for Selecting Partner Industries and Firms	The study focused on the strategic management-based alliance partner selection process, and related analytical tool provide a foundation from which firms can begin to evaluate alliances in a more systematic, dynamic and strategic manner at multiple analysis levels.	The study performed a thorough review of the academic and professional literature on alliances in different industries, seeking to identify industry issues, industry trends and firm strategies	Holmberg and Cummings (2009) suggested further research to examine how the tool can be effectively implemented in different organisations, considering existing structures, routines and various actors' roles.
Johnes *et al.*	Cost structure	Johnes *et al.* (2005) contended the	Cost functions were	Much of the analysis of

Author & Studies	Concept of ECM in strategic alliances	Contribution to the study of Alliances & Issues discussed	Methodology	Gap/Limitation of Previous Studies
(2005) Bodendorf, Lutz, Michelberger, and Franke (2021)	underpins key policy issues.	importance of organisations understanding the cost structure that underpins key policy issues. The methodology stresses the importance of estimating cost functions in an alliance, an area of study in the current research. A standardized cost analysis process creates efficiency and focuses on purchased components that require specific expertise. However, the study observed that there are currently no norms and standards for cost analysis.	estimated using both random effects and stochastic frontier methods. The paper advanced the existing literature by employing finer disaggregation by subject, institution type, and location and introducing quality effects.	the research concerned the issue of cost-efficiency. However, the authors suggested further research to explore the determinants of inter-institutional differences in efficiency
Katzenbach & Bromfield (2008)	The significance of maintaining a rational cost structure is the imperative of an organised internal resources mechanism to support the alliance.	They are launching cost reduction initiatives as a survival strategy during the 2008 economic downturn. Many companies ignore the critical need to secure employee commitment when making cost cuts, which is one	Case study approach	Katzenbach and Bromfield (2008) urged that a genuinely committed workforce could reduce costs more and sustain the reductions longer than a workforce under duress.

Author & Studies	Concept of ECM in strategic alliances	Contribution to the study of Alliances & Issues discussed	Methodology	Gap/Limitation of Previous Studies
		of the reasons why only 10% of companies sustain cost reductions after three years1. Specifically, the study proposed that companies planning cost reduction initiatives must obtain the positive emotional commitment of their employees to support decisions and commit to behaviour change that reduces costs.		Identifying the cost drivers that give rise to costs could further develop the cost reduction approach used in this study.
Segil (2005)	Developing metrics to manage alliances successfully	Segil (2005) urged that the key to successfully managing alliances is developing and implementing alliance metrics. Metrics should consider the life cycle stages, alliance culture, and stakeholder perspectives. Identifying success at each stage of the alliance life cycle allows for creating appropriate metrics.	Case study	However, the study pointed out that the underlying importance of these relationship metrics are the fundamental financial metrics for profitable growth and return on capital, without which the alliance would not have been worth pursuing in the first place.

Author & Studies	Concept of ECM in strategic alliances	Contribution to the study of Alliances & Issues discussed	Methodology	Gap/Limitation of Previous Studies
				However, the study does not expound on the financial metrics (e.g. cost management) to ensure this alliance's success.
Steinhilber (2008)	With a solid alliance framework in place, one would reduce risk, hold stakeholders accountable, set clear expectations, create a platform for decision-making and improve the overall chances of success.	Steinhilber (2008) urged that alliances require a process and a governance structure, that is, a disciplined procedure, which guides their formation and offers a clear way to make decisions about managing the partnership whilst it is underway. Steinhilber's book emphasised the need for a framework for partnerships to work. With a solid alliance framework in place, you reduce risk, hold stakeholders accountable, set clear expectations, create a platform for decision-making, and improve overall success.	Exploratory study approach of Cisco and its partners	Thus, this research combines prior alliance management research to propose an enterprise cost management model to address the conceptual and empirical gap in cooperative governance literature related to strategic alliances.

Author & Studies	Concept of ECM in strategic alliances	Contribution to the study of Alliances & Issues discussed	Methodology	Gap/Limitation of Previous Studies
		Steinhilber (2008) identified that Strategic Alliance is born, grows, matures and dies in six stages of the alliance life cycle.		
Sundelin (2009)	Business model and cost structure	In the research article, Sundelin (2009) urged that all components of a business model have related costs and that the costs' size and behaviour indicate the business model's flexibility and scalability. The paper illustrated how managers know that lowering the cost by $1 has a more significant impact on the bottom line than increasing the revenue by $1, as revenue almost always comes with an associated cost. A low-cost structure is a strong competitive advantage that market leaders in industry after industry recognise when companies with low-	Exploratory research article of USA companies	The business model concept is an excellent framework to identify where costs arise and how it relates to creating and capturing value for customers and other value recipients. Identifying significant costs and assets needed relating to each business model component provides an overview that can be used to improve the existing model or completely alter it.

Author & Studies	Concept of ECM in strategic alliances	Contribution to the study of Alliances & Issues discussed	Methodology	Gap/Limitation of Previous Studies
		cost business models enter their markets.		
Bastida, Marimon, Tanganelli (2017); Barber (2008)	Alliances succeed with collaborative partnerships that recognise all contributing areas, including processes, procedures, information and financial linkages.	Value could be found in both tangible and intangible areas of the chain. The integration of these areas has been neglected but needs recognition of their worth. Value is added successfully with collaborative partnerships that recognise all contributing areas, including processes, procedures, information and financial linkages, knowledge management, innovation, strategies, change and relationships.	A conceptual model was presented based on the balanced scorecard. The new model formulated a model for the tangible aspects that measure the entire chain's success that is then extended to incorporate the intangible value-adding aspects to measure total value chain success.	Further research was proposed to ascertain the appropriate key performance metrics for the various intangible and tangible aspects contributing to the collaboration. The metric that could be termed the true “bottom line” should not be measured by the financial returns as much as the overall satisfaction derived from doing business with its current partners.
Mahamid (2017);Rus	Importance of risk management in	There are several reasons for this low success rate. Among them is a lack of	A mega project case study was conducted.	As much as literature has identified risks associated

Author & Studies	Concept of ECM in strategic alliances	Contribution to the study of Alliances & Issues discussed	Methodology	Gap/Limitation of Previous Studies
so & Cesarani (2017); Lodhi *et al.* (2017) Madhok *et al.* (2015)	strategic alliances	familiarity, understanding and proper communication among alliance partners (Mahamid, 2017; Russo and Cesarani, 2017). Lodhi *et al.* (2017) observed the importance of risk management among members in strategic alliances.	System dynamics and computer simulations improved quantitative analyses and scenario planning.	with a strategic alliance, minimal work has considered risk management in strategic alliances (Yan and Lee, 2021).
Llango (2009)	Knowledge of different business model components (cost drivers) affects costs; subsequently, performance in other components is a starting point for a business model.	LLango (May 2009) postulated that managers rely on cost accounting to explain the actual cost of processes, departments, operations or products, which is the foundation of their budget, allowing them to analyse fluctuation and how funds are used socially for profit.	Exploratory case study	The research argued that cost accounting is a vital management accounting process. But does not provide structure on how this helps managers to determine the company's profitability

2.8 Conceptual Framework

Based on the theoretical foundation, a conceptual framework of the study was developed as a set of broad ideas and principles taken from relevant inquiry fields and used to structure a subsequent presentation (Reichel & Ramey, 1987). When clearly articulated, a conceptual framework has potential usefulness as a tool to scaffold research and, therefore, to assist a researcher in making meaning of subsequent findings. Such a framework should be intended as a starting point for reflection on the research and its context. This framework was adequately used as a tool intended to help develop an understanding of the *Enterprise Cost Management Conceptual Model for Strategic Alliances.* In this case, the conceptual framework became the heart as the research gained momentum and increasingly supported, strengthened and kept the research process on track as observed by Goetz & LeCompte (1984) through:

a) providing clear links from the literature to the research goals and questions;
b) informing the research design;
c) providing a reference point for discussion of literature methodology and analysis of data; and
d) contributing to the trustworthiness of the study.

Figure 1.2 outlines the research logic followed, integrating the research questions, propositions, framework, methods and operationalisation. The conceptual framework explains the relationships between cost and performance in strategic alliances. The conceptual framework follows that the greater the enterprise cost conceptual model's application in a real-life project, the higher the business performance (P3). Gates (1999) supports this argument by contending that a strategic performance measurement system translates business strategies into deliverable results by combining financial, strategic and operating measures to gauge how a company meets its targets.

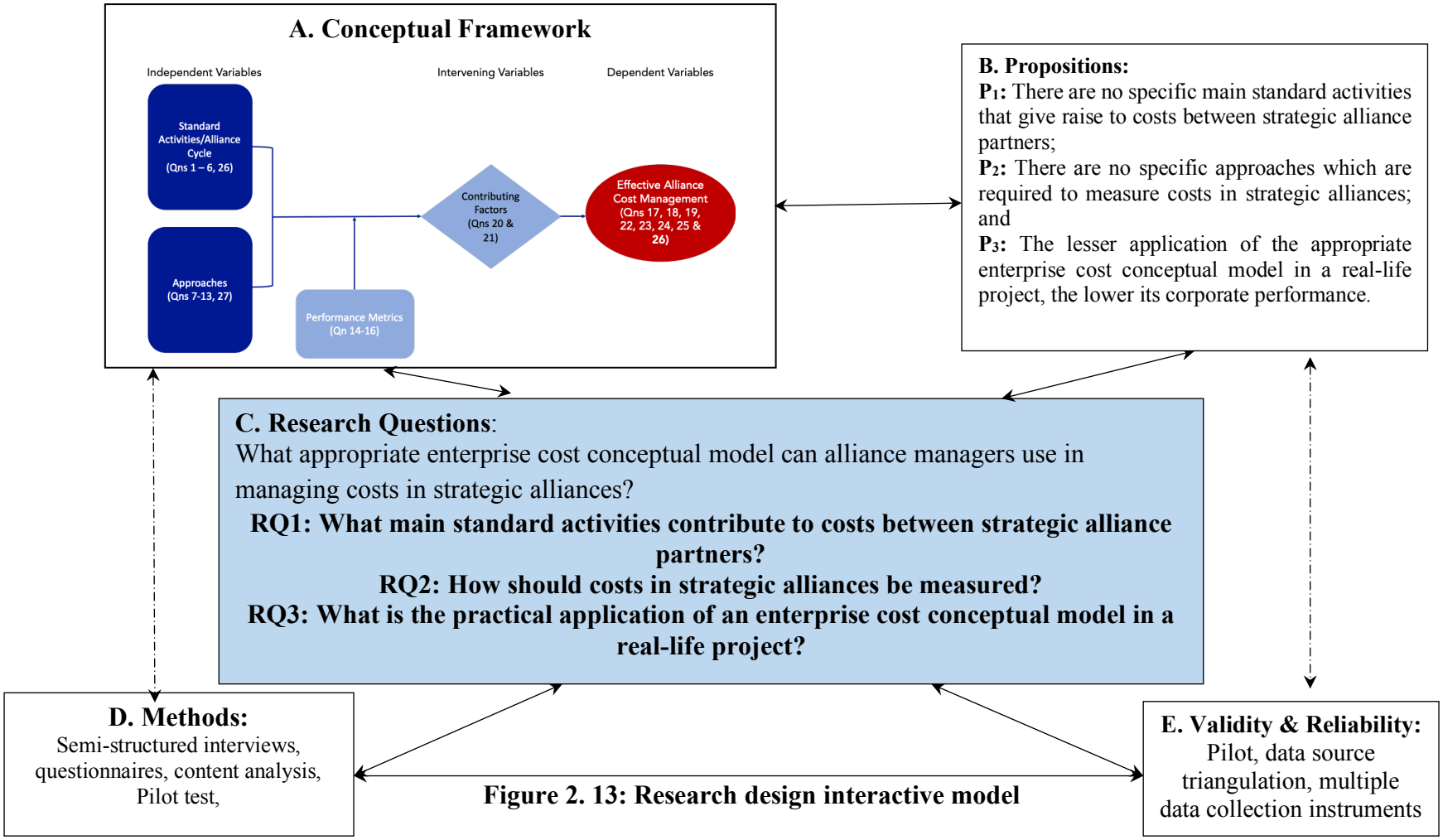

Figure 2. 13: Research design interactive model

Source: Maxwell (2005).

2.8.1 Operationalisation of the Conceptual Framework

Three concepts are central to the study and require operational definitions: strategic alliance, cost management and corporate performance. Figure 1.2 shows the relationship among these variables. In this case, the enterprise cost conceptual model is a strategic performance measurement system for maximising the value of a strategic alliance.

a. Strategic Alliances - For this research, a strategic alliance is operationalised as a relationship between two or more parties to pursue a set of agreed-upon goals or to meet a business need that is mutually beneficial while remaining independent organisations. This study also refers to strategic alliances as projects. Strategic alliance life cycles and activities that give rise to costs were investigated to determine the cost drivers in a strategic alliance life/activity cycle. This is so, especially given. This is so, especially given Adner's (2017) position that these new business ecosystems are in the form of collective action in which value is created from the combination of diverse contributions by interdependent but not actively coordinated firms.

a. **Cost Management Approaches -** Dutta (2016) defined cost accounting as involving costing principles, techniques, and methods of ascertaining cost and control by comparing actual costs with the budget or standard. Cost management should be closely aligned with and part of corporate growth strategies. For the current research, cost management approaches are defined as costing principles and methods of ascertaining cost to achieve corporate profitability. Cost management approaches were further operationalised by establishing cost systems in alliances and measures to gauge success and the benefits of strategic alliances concerning tracking cost, risk management and effective decision-making.

b. **Corporate Performance -** Tekavcic and Sink (2002) contended that companies using cost management approaches should perform better, especially when faced with a highly competitive and complex business environment. For this to be achieved, other essential factors moderate this relationship: revenues that the strategic alliances can generate and the management of cost in collaborateive arragments. Therefore, corporate performance in the context of this study was defined as a composite assessment of how well an organization executes on its most important parameters, typically three metrics were chosen because

they offer a more balanced performance evaluation in terms of financial and non-financial metrics of an alliance as follows:

i. Financial performance: Revenue and profitability.
ii. Time to market: Measured based on incremental market share over multiple years in customer acquisition.
iii. Product Innovation: The number of new products introduced in five years.

2.9 Towards Conceptual Enterprise Cost Model for Strategic Alliances

Although the literature on the subject surfeits, there is a knowledge gap that the current research seeks to bridge. The role of cost in strategic alliances' sustainable performance has not been comprehensively investigated in the literature. The current research bridges this theoretical and empirical gap by proposing a conceptual enterprise cost model. In justifying the research, it is critical to highlight the following gaps that exist within the study area:

a) A search to check thesis and dissertation databases from online databases yielded limited results. The database search indicated that there is limited literature on the measurement of costs between strategic alliance partners;
b) Much of the literature review pointed out that strategic alliances are created generally as a means to enhance business performance, but there is limited evidence of approaches to manage costs in strategic alliances; and
c) A broad search of related topics within the current literature (the past ten years) did not yield significant results on the strategic alliances in the Zambian telecoms sector context.

The challenges and gaps identified in the literature highlight the need for research that can provide insights into how strategic alliances can be sustained. This gap needs to be narrowed and an approach provided if alliance partners in collaborations are to implement alliances successfully. Several concepts emerged in the literature review and have all been grouped in five main categories as follows: (i) Nature of strategic alliance, (ii) Theory of strategic alliances, (ii) Main standard activities in strategic alliance, (iv) Costs approaches in strategic alliances and (v) Strategic alliance in practice. These concepts are diagrammatically represented in the mind map in Figure 2.13;

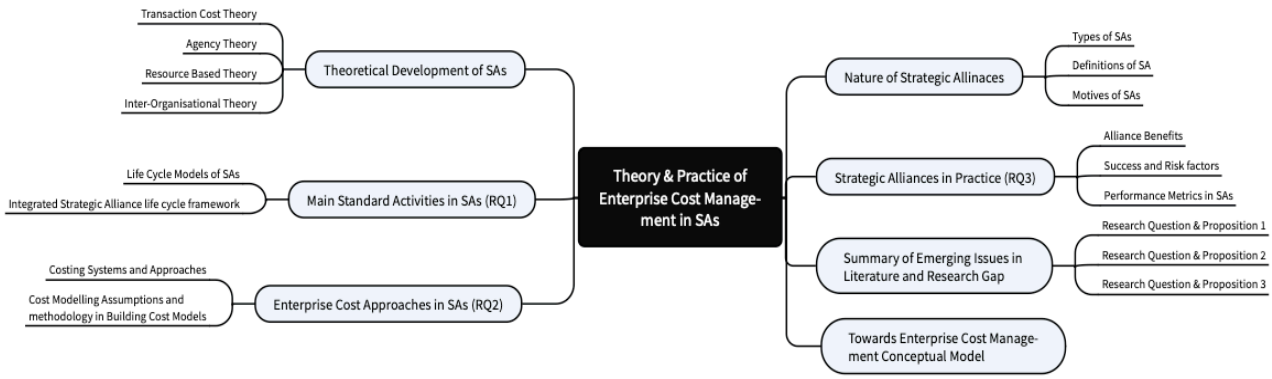

Figure 2. 14:Current research concept map

2.10 Chapter Summary

The literature has brought together several key concepts to develop a new understanding of cost management approaches of strategic alliances. Strategic alliances have emerged as one of the key business strategies of the new economy critical to an organisation's growth objective and have the potential to significantly reduce the time required to develop new products/services or enable access to fast-growing emerging markets. Enterprise Cost Management (ECM) approaches for strategic alliances support the decision-making processes alliance managers engage in when managing costs. ECM approaches provide an essential foundation for meaningful analysis to help execute a business strategy that includes key people, processes and systems. However, the existing literature is limited in approaches that assist businesses engaged in strategic alliances to manage costs. The critical literature analysis has identified a gap in the non-existence of an appropriate implementation approach for cost management in strategic alliances. Consequently, this argues for intensive field data collection to be able to answer the research questions and prove or disprove the propositions in order to develop an enterprise cost management conceptual model:

a) What main standard activities contribute to costs between strategic alliance partners?
b) How should costs in strategic alliances be measured?
c) What is the practical application of an enterprise cost conceptual model in a real-life project?

Further, the observations in the literature gap lead to the following propositions that should be proved or disproved:

P_1: There are no specific main standard activities that give rise to costs between strategic

alliance partners.

P_2: There are no specific approaches that are required to measure costs in strategic alliances.

P_3: The lesser application of the appropriate enterprise cost conceptual model in a real-life project, the lower its corporate performance.

CHAPTER 3 - RESEARCH METHODOLOGY AND DESIGN

3.1 Introduction

To effectively investigate the research topic, the methodology was built on the previous chapter on theory and practice of enterprise cost management in strategic alliances. In this chapter, the selected research design and methodology were examined in the context of their relevance to the research aim, which was to develop an enterprise cost conceptual model that practitioners can apply in managing costs in strategic alliances. This chapter is organized as follows; research philosophy and approach used, research design, study population, sampling technique and sample size, methods of data collection, types of data and data analysis methods. The perspectives of validity and reliability are analyzed to evaluate the appropriateness of the research methodology and its design. This chapter concludes by evaluating how the researcher dealt with ethical considerations to mitigate against bias and promote objectivity.

3.2 Research Philosophy

The selection of an appropriate research strategy and data collection methods was based on a systematic appraisal of the research process. The framework chosen here was due to the combined work of Saunders *et al.* (2019), as illustrated in Figure 3.1. The taxonomy is in the form of an analogy of an 'onion' that provides an effective progression through which this research methodology was designed. Its usefulness lies in its adaptability for almost any research methodology and can be used in various contexts (Clark, Foster and Bryman, 2021). A research philosophy refers to beliefs concerning the nature of the reality being investigated (Clark *et at.,* 2021). It is the underlying definition of the nature of knowledge. The assumptions created by a research philosophy justify how the research was undertaken (Flick, 2011). In this study, the researcher used both positivism and interpretivism. Positivism assumes that reality exists independently of the thing being studied. In practice, this means that the meaning of phenomena is consistent between subjects (Newman, 1998). Conversely, constructionism indicates that each observer or group creates the inherent meaning of social phenomena. Each observer or group's inherent meaning of social phenomena is created (Stlund, Kidd, Wengstr, & Rowa-Dewar, 2011).

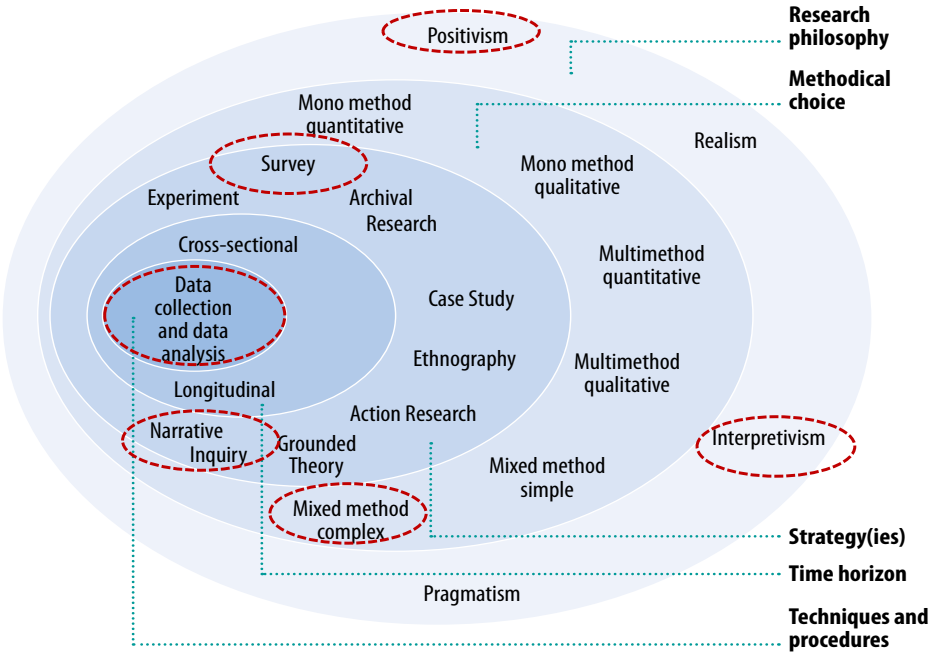

Figure 3. 1: Research Onion

Source: Saunders, Lewis and Thornhill (2019).

This study was situated in both positivism and interpretivism perspectives. Despite the inherent differences between these two practices, it is not necessarily the case that they form an inherent belief by the researcher that is then applied to all research contexts (Podsakoff, MacKenzie, & Podsakoff, 2012). In this research, the empirical evidence gathered from interviews conducted with participants from the different alliances in the telecoms and a questionnaire to interpret and understand the phenomenon of cost enterprise cost management in strategic alliances provided a balanced perspective that mitigated bias and lack of objectivity that the researcher acknowledged.

3.3 Research Methodology

Creswell & Clark (2018) described mixed method research as both a method and a methodology for conducting research that involves collecting, analysing and integrating quantitative and qualitative research in a single study or a longitudinal programme of enquiry. Cresswell (2008) further posited that the purpose of this form of research is that both qualitative and quantitative research provides a better understanding of a research problem or issue than either research approach alone. From the literature reviewed in this study, the dynamics of an Enterprise Cost Management Conceptual Model for Strategic Alliances cannot be fully analyzed with one arm of

the research process because of corporate and business decisions' multidimensionality. Therefore, this study used the mixed approach method that deployed two sets of approaches (qualitative and quantitative approaches) simultaneously running, dealing with the planned data collection and interpretation procedures.

The research questions and propositions captured the aim of this research. Leedy & Ormrod (2005) described research methodology as an attempt to systematically find an answer to a research question with the support of demonstrable facts. The research was set out to study, investigate, measure and analyse all aspects of the research questions and objectives. The study's main research question was: What appropriate enterprise cost conceptual model can alliance managers use in managing costs in strategic alliances? At the conceptualisation stage, the literature reviewed had no direct answer to the research question. Much of the literature review pointed out that strategic alliances are created generally as means to enhance business performance, but there was and still is limited evidence of approaches to manage costs in strategic alliances. In answering this question and given the nature of the research coupled with the industry dynamics, the study adopted a mixed-methods approach to allow for data triangulation from different sources. A triangulation model of research design integrates both quantitative and qualitative research data, techniques and methods in the stages of the research processes.

The data collected in this study served as inputs for data analyses aiming to answer the research questions, and the respective analysis was done using Stata and Thematic Analysis. The methodological approach that was used to carry out this research is simply a process for collecting, analyzing and “integrating” both quantitative and qualitative data at some point of the study procedure within single research to understand a research problem profoundly and more thoroughly (Creswell, 2012; Creswell & Clark, 2018). The rationale for mixing these two approaches for this study was that neither quantitative nor qualitative approaches are adequate to capture and elucidate the details of the situation, such as the complex issue of ‘The Enterprise Cost Management Conceptual Model for Strategic Alliances in Zambian’s Telecommunications Industry. Mixed methods research is also a good design, especially when we seek to build on the strengths of both qualitative and quantitative data (Creswell & Creswell (2018).

3.4 Research Design

The study implored the complex mixed-method approach to get the best out of the approaches. The justification for a complex mixed-method approach is where the research is divided into separate segments to capture and elucidate the details of the situation, such as the complex issue of 'Enterprise Cost Management Conceptual Model for Strategic Alliances' with each producing a specific dataset; each is then analyzed using techniques derived from quantitative or qualitative methodologies (Feilzer, 2010). Cresswell (2015) provided six different types of study designs in mixed methods, namely:

i. Sequential Explanatory Design.
ii. Sequential Exploratory Design.
iii. Sequential Transformative Design.
iv. Concurrent Triangulation Design.
v. Concurrent Embedded Design.
vi. Concurrent Transformative Design.

This study used the concurrent embedded strategy to mix the data from the two methods resided side-by-side. This provided an overall composite assessment of the research problem, as expounded in Figure 3.2.

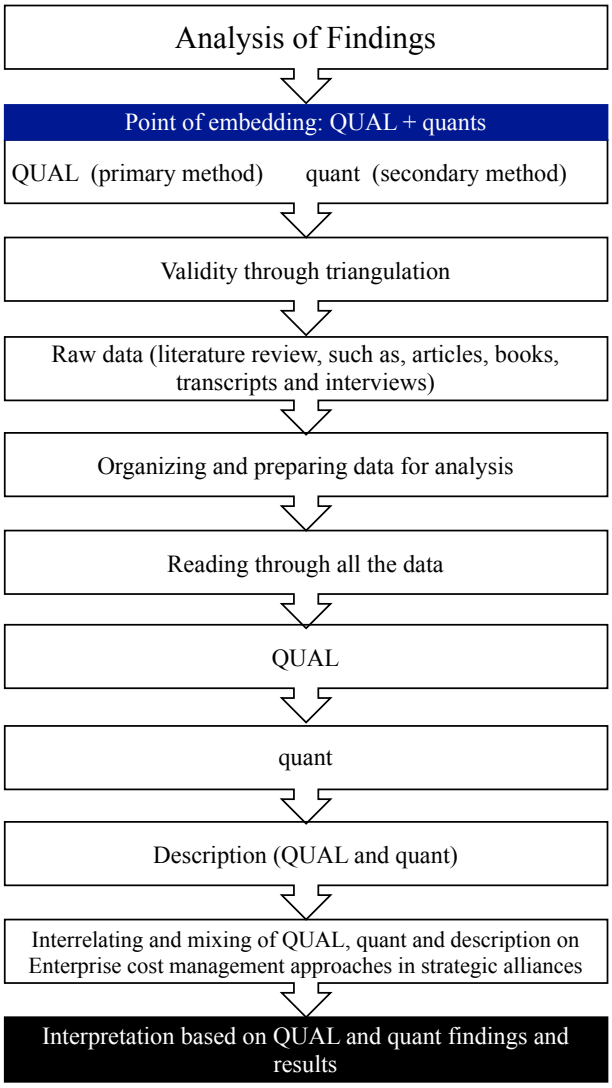

Figure 3. 2: Concurrent embedded strategy and research methods flow

Source: Creswell (2013).

Polit and Beck (2008) contended that these mixed methods strategies are described using notation developed in mixed methods research. Mixed methods notation provides shorthand labels and symbols that convey essential aspects of research and can easily communicate mixed method strategies or procedures. “QUAL” and “quant” notations were used in the concurrent embedded strategy to clearly communicate this study's strategy and methods, as diagrammatically represented in Figure 3.2. Both the “QUAL” and “quant” notations are scientifically accepted research notations used to distinguish qualitative and quantitative research, respectively, in the study of mixed methods research, using the concurrent embedded strategy (Ary, Jacobs, Razavieh &

Sorenson, 2009; Creswell & Baez 2021; Teddlie & Tashakkori, 2009; Teddlie & Tashakkori, 2010). In this study, the following three notations were used and diagrammatically represented in Figure 3. 2:

i. "QUAL" is shortened for qualitative and to emphasize that qualitative research is the predominant method that was used in this mixed-method study;
ii. "quant" is shortened for quantitative to emphasize that quantitative research is the second method that was used in this mixed-method study; and
iii. "+" indicates a concurrent form of data collection with both qualitative and quantitative data being collected simultaneously.

In this study, the concurrent embedded strategy was used with a single data collection phase during which quantitative and qualitative data were collected concurrently. The mixing of the data from the two methods was not compared; instead, the data resided side-by-side, providing an overall composite assessment of the research problem. Like all other research strategies, the concurrent embedded strategy has many advantages and disadvantages. Based on this argument, Bergman (2008) stressed some of the advantages of the concurrent embedded strategy as:

i. A broader perspective was achieved due to using different methods instead of only one research method.
ii. The ability to collect the two types of data simultaneously during a single data collection phase.
iii. Providing both qualitative and quantitative data.

Conversely, Daniel (2012) argued that there are also limitations regarding mixed-method research's concurrent embedded strategy. For example, the individuals conducting the research should be familiar with integrating qualitative and quantitative data within the analysis phase of the research. However, the advantages far outweigh the limitations of utilizing the concurrent embedded strategy of mixed-method research. However, this study adopted the concurrent embedded design based on the following rationale:

i. The mixing of the data from the two methods resided side-by-side, which provided an overall composite assessment of the research problem;

ii. Instead of only using the qualitative or quantitative method, a broader perspective of the problem was achieved using different data types in mixed methods research;
iii. Time was saved since both qualitative and quantitative data were collected concurrently during a single data collection phase; and
iv. The study provided both qualitative and quantitative data. The data assisted with the research analysis and interpretation of findings and results in Chapters 4, 5 and 6.

3.5 The Population of the Study

The study population constituted the total number of respondents targeted for the study (Sekaran, 2000). This study sampled telecom companies from the population with due attention to the four segments of the telecoms industry, namely; (i) fixed-line, (ii) international gateway, (iii) mobile telephony, and (iv) internet markets.

Therefore, the Telecoms sector provided an excellent case to study the phenomenon of strategic alliances that are not prevalent in other sectors due to the infancy of the Zambian economy. The researcher used Zambia's Telecoms industry as a case for answering the question of *What appropriate enterprise cost conceptual model can alliance managers use in managing costs in strategic alliances?* The study was conducted in an industry with similar topographies. The use of similar environments within the study enabled industry cross benchmarking and made the telecoms sector feasible. Telecoms companies that are registered with the Zambia Information Communication Technology Authority (ZICTA) were selected as the target market for the following reasons:

i. The ZICTA compliance requirements are stringent, implying that businesses on the ZICTA register have sufficiently satisfied management acumen requirements, financial soundness, long-term strategy and future focus.
ii. Telecom companies have a deeper engagement in strategic alliances than other sectors, affording them the experience needed to respond to strategic alliances' risks and opportunities.
iii. ZICTA is a public authority; thus, data that would not have been otherwise available in the private sector will be available in the public domain.
iv. The higher chance that telecom companies are multinational companies or companies with

business interests where strategic alliances are common implies that such an industry will be more aware and willing to tackle the cost management challenges with alliance partners**.** Additionally, this allows bringing the international perspective to the study.

Based on this, the study selected telecom companies of comparable size according to the sector segmentation. The table below provides the list of 17 (one firm with four licenses) firms registered with ZICTA with potential 73 research participants.

Table 3. 1: Registered Firms with ZICTA

S/N	Operator	Market Segment	Subscriber Based Market Share (%)	Potential Participants							
				CEO	CFO	COO	CMO	PO	LC	Others	Total
1	Airtel	Mobile	48.0%	1	1	1	1	1	1	1	7
2	MTN	Mobile	35.0%	1	1	1	1	1	1	1	7
3	Zamtel	Mobile	16.0%	1	1	1	1	1	1	1	7
4	Zamtel	Telephone	100.0%								0
5	Zamtel	International Gate Way	100.0%								0
6	Zamtel	ISP	0.1%								0
7	Africonnect	ISP	0.3%	1	1	1	1		1		5
8	Zamnet	ISP	0.3%	1	1	1	1		1		5
9	Coppernet	ISP	0.4%	1	1	1	1	1	1		6
10	Paratus	ISP	0.5%	1	1	1	1				4
11	HAI	ISP	0.8%	1	1	1	1		1		5
12	ISAT	ISP	0.9%	1	1	1	1				4
13	MTN Business	ISP	1.0%	1		1					2
14	Quick Edge	ISP	1.1%	1	1	1					3
15	Microlink	ISP	1.3%	1	1	1		1			4
16	Preworx	ISP	1.5%	1	1	1					3
17	Post ISP	ISP	4.6%	1	1	1					3
18	Bring.com	ISP	10.1%	1		1					2
19	Internet Tech	ISP	29.4%	1	1	1					3
20	Aplus	ISP	48.0%	1	1	1					3
			TOTAL	**17**	**15**	**17**	**9**	**5**	**7**	**3**	**73**

Source: (ZICTA, 2013)

3.6 Sampling Procedure and Sample Size

This study used the purposive sampling method, which enabled the researcher to collect information from respondents with specialist knowledge of the strategic alliance, capacity and willingness to participate in the research (Oliver, 2013). This method provides a better way to elicit the views of persons with specific expertise. The disadvantage of this type of purpose sampling is

that even the experts can be, and are often, wrong (Bernard & Ryan, 2010). The companies were picked from the population with due attention to the four pillars of the telecom sector: the fixed-line, international gateway, mobile telephony, and Internet markets/Internet Service Providers (ISPs). The sample members were purposively selected for their position, market share of over 1%, and broad knowledge and influence in the sector. Burns and Grove (2003) refer to sampling as choosing a group of people, events, or behaviour to conduct a study. Bryman and Bell (2017) add that if the whole population is selected, the sample needs to be a portion of that population. The non-probability sampling used in this study helped choose to include respondents based on their ability to provide the necessary data (Parahoo, 1997). The sampling of the respondents was done by identifying potential respondents, including alliance managers involved in the strategic alliance's management. Secondly, where identification of potential respondents was selected through a pre-selection process. The final stage was to explain the research scope and objectives and to request voluntary participation.

3.6.1 Sample Size

Based on this process and procedure, the researcher contacted potential respondents using telephone and e-mails for participation in this research, and in total, 73 people were contacted. The process continued until the researcher had at least 63 respondents willing to participate in this research, forming a sample size. From this sample, 53 participants responded, representing an 84% response rate, i.e. 42 responded out of 48 for questionnaires (88%) and 11 participated in the interviews (73%) out of 15 targeted samples. The samples were selected based on the knowledge of strategic alliances and the researcher's judgment in the telecom sector. The respondents comprised chief executives, financial professionals, chief operating officers, marketing professionals, legal counsels, and procurement officers. This information was deemed essential in developing a comprehensive understanding of the market and making an appropriate judgment in the sample selection process. The alliance managers in this sampling were regarded to have sufficient knowledge and experience with strategic alliances and could identify and evaluate costs associated with strategic alliances. These alliance managers formed a basis for the unit of analysis. The entire research elements were from Lusaka, as all companies had their head offices based in Lusaka. Table 3.2 is the definition of the study sampling using expert sampling.

Table 3. 2: Study sampling

Respondents	The fixed line	International gateway	Mobile telephony	Internet markets (ISP)	Total
Questionnaires	2	4	6	30	**42**
Interviews	1	1	3	6	**11**
Total	**3**	**5**	**9**	**36**	**63**

Marshall, Cardon, Pooldar and Fontenot (2013) contended that three considerations must be made when designing a sample size as follows: (i) small sample size studies generally involved more contact time with each interviewee; (ii) theoretical saturation generally occurs between 10 and 30 interviews; and (iii) once a researcher believes saturation has occurred, they should conduct several additional interviews to test, whether existing themes and categories are sufficient. In this research, the study population of participants consisted of 53 senior executives and alliance managers in Zambian telecoms as per the ZICTA register, of which a total of 42 participated in the survey, and 11 interviews were conducted. This was well within a minimum saturation point of between 10 and 30 interviews to draw inferences, as supported by Marshall *et al.* (2013).

3.6.2 Unit of Analysis

McGloin's (2008) research showed that a unit of analysis could be a person, family, ward or organisation. However, Dolma (2010) equally asserted that in organisational behaviour and managerial sciences, for example, a typical unit of analysis are employees, supervisors, top managers, customers, work teams, departments and business corporations. As this is a scientific study, we used the unit of analysis for firms in strategic alliances for which senior executives and alliance managers with exposure and insight into strategic alliance activities of the telecom sector. Therefore, the participants were senior executives and alliance managers of telecom companies involved in strategic alliances.

The inclusion criteria included the following:

i. Telecoms companies that are registered with the Zambia Information Communication Technology Authority (ZICTA) were eligible for the research;
ii. Chief executives, financial professionals, chief operating officers, marketing professionals,

legal counsels and procurement officers were involved in managing strategic alliances.

The following three criteria were excluded from the sample:

i. Telecom companies registered with the Zambia Information Communication Technology Authority (ZICTA) who fulfilled the above inclusion criteria but did not want to be part of the study.
ii. Chief executives, financial professionals, chief operating officers, marketing professionals, legal counsels and procurement officers involved in the management of strategic alliances who fulfil the above inclusion criteria but did not want to take part in the study; and
iii. Those respondents who fulfil the inclusion criteria but who found it very problematic to communicate.

3.7 Data Collection Process

The process included three phases: research instrument design, a pilot for refining the research instruments, and the data-gathering phase. The methods used for data gathering and the reason for the choices of the methods employed are explained in the following sections.

3.7.1 Data collection methods

The primary data collected was qualitative and quantitative through three methods; interviews, questionnaires and document review. Table 3.3 gives the data collection strategy used and explains the characteristics associated with each data collection strategy.

Table 3. 3: Summary of primary data collection methods

Strategy	Characteristics
Interview	Data collection by interview required the researcher to set up a face-to-face, telephone or video conferencing scenario. The questions were semi-structured. The method was appropriate for the researcher to understand a subject's perceptions or experiences fully. The data was deep and collaborative but took longer;
Questionnaire	The data collection method required predefined questions which covered several research variables in a short time. The method was inexpensive to administer and easy to compare, analyze and refer to. The need to limit the number of questions implied the risk that the study subject might not be covered in depth.
Document Review	These data sources included related books, articles, journals, policy documents, published and unpublished papers, and documents from the UNISA library and the Internet. Firm-level data from the Central Bank of Zambia (BoZ), ZICTA and Central Statistics Office (CSO) of Zambia was obtained.

The first steps were a review of essential documents (secondary data) that shed light on strategy, strategic alliances, cost management approaches and corporate performance. This was then followed by a collection of primary data that involved interviews and questionnaires with key informants drawn from the management of the companies engaged in strategic alliances to address the research questions. This approach was chosen because it allowed for triangulation and can be tested for reliability and validity. Despite the advocacy for the use of multiple methods, Scandura & Williams (2000) believe that there should be a principal method for the study and others being complementary for collaborative purposes. This position was adopted for this study with the principal qualitative approach. The study followed a mixed data collection approach, as shown in Figure 3.3.

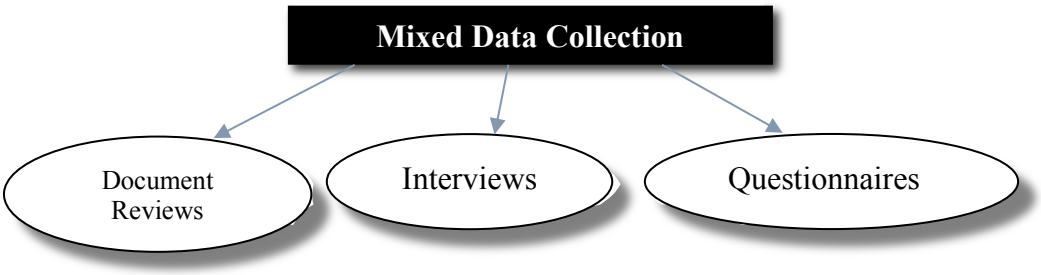

Figure 3. 3: Selected data collection

3.7.2 Pilot study

A pilot study was conducted to refine the research instruments and the data-gathering phase. The questionnaire was thoroughly pilot-tested before dissemination to uncover flaws and potential causes of confusion, such as misleading questions that could result in invalid responses. Ten questionnaires were distributed to academia, friends and other well-known contacts for the pilot test to verify feasibility and compliance with objectives set out by the overall study. The process was divided into two stages to ensure high design quality: preliminary and piloting. The preliminary stage involved formulating the measurement questions as a draft research instrument. The research instruments were then given to personnel consisting of an academic and strategic alliance manager from a telecom company to provide input for improving the quality of the measurement instrument. The piloting stage tested the instrument on four officers from each company (one from each segment of the telecom sector; the fixed-line, international gateway, mobile telephony and Internet markets). Those officers that participated in the pilot were not members of the final sample. Also, some design principles were considered essential for discussion to underpin the desired design quality, namely the administration approach used for the questionnaire and the concept of measurement.

3.7.3 Document review

Existing records often provide insights into a setting or grouping that cannot be observed or noted in another way. This information can be found in document form (Lincoln and Guba, 1985). Materials from governmental publications, press reports, and online documents were examined. These data sources included related books, articles, journals, pieces of legislation, policy documents, published and unpublished papers, and documents from the UNISA library and the Internet. This was supplemented by firm-level data from the Central Bank of Zambia (BoZ),

ZICTA and CSO. Specifically, for this study, 16 documents for key policy and strategic alliance documents were selected based on 'relevance and information rich' from each of the four segments, as shown in Table 3.4. Documents analysis helped determine and establish the nature and forms of strategic alliances, including the costs. Four documents from each of the four segments were deemed appropriate.

Table 3. 4: List of Key Strategic Alliances Documents

S/N	Document Reviewed	Fixed Line	International Gateway	Mobile	ISP	Total
1	Strategic Plans	1	1	1	1	4
2	Annual Reports	1	1	1	1	4
3	Alliance Agreements	1	1	1	1	4
4	Due Diligence Checklist		1		1	2
5	Press Statements	1		1		2
	Total	**4**	**4**	**4**	**4**	**16**

3.8 Design of Measuring Instruments

Several issues have been raised about measuring instruments, including what they should seek to obtain from respondents, how they should be structured and how the flow should be maintained in the measuring instrument. Proctor (2000), for example, noted that measuring questions seek to obtain the following information:

i. facts and knowledge represented by beliefs and perceptions,
ii. opinions about an object of study, its properties,
iii. the motive of, e.g. action, decision, behaviour or choice, and
iv. past and future behaviour, decisions, or actions.

This study's two key instruments comprise the semi-structured interview and questionnaires protocol (see Appendix A-B). Interviews with the key Informants allowed for collecting qualitative and quantitative data for the analysis. Both open-ended and close-ended responses were solicited from the interview participants. Quantitative data was collected through well-structured questionnaires administered, whereas qualitative data were collected during the interviews with executive and management teams involved in strategic alliances. The questionnaire included both

open-ended and close-ended questions and was designed to include a Likert categorical scale to measure respondents' attitudes toward the crucial factors consistent with research questions. The questionnaires were administered through the drop-and-pick method. The filled-in questionnaires were then collected and coded in readiness for data analysis. A covering letter and informed consent were written and attached to the measuring instrument (see Appendix C). The measuring instruments in the form of an interview guide and questionnaire consisted of four significant parts: main standard activities, approaches to measuring costs in strategic alliances and practical application of enterprise conceptual. Each research question and a proposition were linked to the interview question and the semi-structured questionnaire regarding what they sought to investigate, as shown in Table 3.5.

Table 3. 5: Measuring instrument design

Classification	Interview questions	Questionnaire question	Description and Focus
The research question being investigated here is: ***What main standard activities contribute to costs between strategic alliance partners?***	Section B Questions 6 -11	Section A Questions 1-6	No specific main standard activities give rise to costs between strategic alliance partners. Therefore, the section sought to investigate strategic alliance life cycles and activities that give rise to costs to determine the cost drivers in a strategic alliance life/activity cycle.
The research question being investigated here is: ***How should cost in strategic alliances be measured?***	Section C Questions 12-16	Section B Questions 7-18	No specific approaches are required to measure costs in strategic alliances. Therefore, the section sought to establish a system of capturing cost in alliances/partnerships and measuring a strategic alliance's success. This section further looks

Classification	Interview questions	Questionnaire question	Description and Focus
			at the extent of benefits of strategic alliances in the organisation concerning tracking cost, risk management and effective decision-making.
The research question being investigated here is: ***What is the practical application of an enterprise cost conceptual model in a real-life project?***	Section D Questions 17-21	Section C Questions 19-25	The greater application of the appropriate enterprise cost conceptual model in a real-life project, the higher its corporate performance. The responses obtained in this section ' mined' the soft issues that relate the application of a cost conceptual model to corporate performance
Classification questions	Section A Questions 1-5	Section A Questions 29-39	Classification questions will seek to identify the attributes of respondents and group them accordingly. Stated differently, the section provided the respondents' demographic profile, intending to provide further explanations of some observed phenomena.

3.9 Nature of the Study Questionnaire

This research started with three research questions that needed answers. As discussed in Chapter 3, the data collection tool used to collect information for this study was the interview guide and questionnaire (Appendix 1 and Appendix 2, respectively). An extensive literature review formed the basis for developing the questionnaire and the structured interview guide. The measuring

instruments (or data collection instruments) in the form of an interview guide and questionnaire consisted of three major parts: main standard activities, approaches to measuring costs in strategic alliances and the practical application of the enterprise conceptual model. Each research question and proposition were linked to the interview questions and semi-structured questionnaire regarding what they sought to investigate.

3.9.1 Section A: Standard activities giving rise to cost

Section A1

This section allowed for an understanding of available strategic alliance life cycles and what is used in their organisation. A list of eight phases was given as follows:

i. Alliance Start-up & Strategy (QN A1.1).
ii. Alliance Partner Forming (QN A1.2).
iii. Alliance due diligence (QN A1.3).
iv. Alliance Contracting (QN A1.4).
v. Alliance execution (QN A1.5).
vi. Alliance growth (QN A1.6).
vii. Alliance stability & maturity (QN A1.7).
viii. Alliance sustaining/retiring (QN A1.8).

Section A2 - A perspective of a system used to capture all business activities related to a strategic alliance.

Section A3 - Understanding whether strategic alliance partners' non-financial activities were costed and quantified in all the strategic alliances.

Section A4 - A perspective of information produced in a strategic alliance and determination of essential information for effective cost management of a strategic alliance. The entire list included:

i. Resource (material, plant, Labour) schedules (QN A4.1).
ii. Resource (material, plant and Labour) budgets (QN A4.2).
iii. Activity or task breakdown cost or budget (QN A4.3).

iv. Schedule of activities (QN A4.4).
v. Project day works schedule (QN A4.5).
vi. Project profit and loss account (QN A4.6).
vii. Project cash flow (QN A4.7).
viii. Labour and plant timesheets (QN A4.8).
ix. Price inflation price adjustment index (QN A4.9).

Section A5 - Assessment of who drives costs in strategic alliances.

Section A6 - A perspective of the level of information that strategic alliances produce for decision-making during an alliance's life. This information was given at three levels, namely:

i. Process Category (PC) levels.
ii. Management Process (MP) level.
iii. Business Process (BP) level.

3.9.2 Section B: The Cost measurement approaches

A perspective was sort on the cost measurement approaches available and used in strategic alliances:

i. Costs accounting evaluation systems (QN B7).
ii. Application of enterprise cost management approaches (QN B8).
iii. The system's satisfaction in capturing cost information in strategic alliances is financial, non-financial or both (QN B9).
iv. Standard costs in strategic alliances relating to:
v. Search costs (QNB10.1).
vi. Costs of preparing, executing & monitoring contracts (QNB10.2).
vii. Enforcement (QNB10.3).
viii. Loss of specific investments (QN 10.4).
ix. Standard cost accounting systems are mainly applied in strategic alliances, whether ABC or traditional cost accounting systems or a combination of both (QNB11).
x. Alliance managers should use ideal cost management tools to manage costs (QNB12).

xi. Quantification and importance of accounting for alliance team members' time devoted to the alliance in the form of Level of Effort (LoE) (QN B13).

xii. Performance metrics in strategic alliance enterprise concerning:

xiii. Financial performance (QN B14.1).

xiv. Time to market (This is based on incremental market share over multiple years in customer acquisition) (QN B14.2).

xv. Product Innovation (QN B14.3, B15, B16, B18).

3.9.3 Section C: The application of cost management approaches

i. Benefits that would accrue in enterprises as a result of cost management effectiveness in terms of:
   a) Cost-sharing (QN C19.1).
   b) Reducing costs (QN C19.2).
   c) Shortening product development times (QN C19.3).
   d) Managing risks (QN C19.4).

ii. Success factors are based on the following:
   a) Select the proper partners for the intended goals (QN C20.1).
   b) Share the right information (QN C20.2).
   c) Negotiate a deal that includes risk and benefit analysis (QN C20.3).
   d) Come to a realistic agreement on the time to market and corporate expectations (QN C20.4).
   e) Mutual, flexible commitment on what is appropriate to change, measure and share within each partner's culture (QN C20.5).
   f) Presence of cost systems between partners (QN C20.6).

iii. Risk factors that included:
   a) Strategic disagreement (QNC21.1).
   b) Agency problem (QN C21.2).
   c) Structure instability (QN C21.3).
   d) Culture conflict (QN C21.4).
   e) Communication obstacle (QN C21.5).
   f) Interfirm competition (QN C21.6).

g) Contract Incompleteness (QN C21.7).
h) Unfair resource exchange (QN C21.8).
i) Unfair benefits distribution (QNC21.9).
j) Absence of cost systems between partners (QN C21.01).

iv. Changes in strategic alliances' financial performance using profitability result from cost-effectiveness (QN C22).
v. The nature of success in containing costs in strategic alliances results from cost-effectiveness (QN C23).
vi. Suggestions of better cost management approaches (QN C24-C25).

3.9.4 Section D: Consolidation of factors

The section responded with an opportunity to reinforce the main themes arising from sections A to C by summaries each on the factors concerning:

i. main standard activities that contribute to costs;
ii. costs approach measurements; and
iii. implication for cost-effectiveness.

3.9.5 Section E: Demographic data

The section provided the respondent's demographic profile to give further explanations to some phenomena that were being observed:

i. Respondents' demographics (QN E29 – E30).
ii. Qualifications, the level of designation, experience, authority, decision-making within the organisation and the role in strategic alliances (QN E31 – E33).
iii. Department of operation from (QN E34).
iv. The number of strategic alliances involved in (QN E35).
v. The role played in the strategic Alliance (QN E36).
vi. Type of organisation(s) they ally with (QN E37).
vii. Type Alliance enterprise is engaged in (QN E38).
viii. The principal activity enterprise involved concerning:
a) Fixed-line (QN E39.1).

b) International gateway (QN E39.2).
c) Mobile telephony (QN E39.3).
d) Internet markets (QN E39.4).

3.10 Nature of the Interview Guide

The following list describes the variables under study and which questions of the interview they related to:

3.10.1 Section A: Demographic characteristics:

i. The respondent's demographics (QL A1).
ii. Qualification (QLA2).
iii. The level of designation, authority, decision-making within the organisation and the nature of being involved in projects (QL A3-5).

3.10.2 Section B: Standard activities giving rise to cost:

i. Reasons for forming strategic alliances formed (QL B6).
ii. Strategic decisions are made regarding choosing and arranging strategic alliances (QL B7).
iii. Management of alliance allocation of employees to the alliances? (Probe: What role do you play? (QL B8).
iv. Nature and types of phases or cycles in alliances (QL B9).
v. Each partner performs critical and standard activities in strategic alliances (QL B10).
vi. Cost drivers in strategic alliances (QL B11).

3.10.3 Section C: Cost Measurement approaches

The perspective of how cost management approaches and cost should be measured in strategic alliances, namely:

i. System or mechanism in place to track progress between partners (QL C12).
ii. Availability of a system of capturing cost in alliances. If so, which cost accounting system is mainly applied in strategic alliances? (QL C13).
iii. The capability of a cost system to capture both financial and non-financial costs? (Probe for examples of non-financial costs (QL C14).
iv. System effectiveness (QL C15).

v. Current barriers and challenges encountered in incorporating all costs related to strategic alliances (QL C16).

3.10.4 Section D: The Application of Cost Management Approaches

Perspective on what is the practical application of an effective cost management system in a real-life project:

i. Strategy for addressing the strategic alliance cost issues (QL D 17).
ii. Performance measures are in place for gauging strategic alliance success (QL D18).
iii. Desirable features for an appropriate enterprise cost concept for alliance managers (QL D19).
iv. Benefits of effective cost management approach (QL D20).
v. Factors that would facilitate the smooth establishment of an effective cost management approach (QL D21).

The study's data collection activities are tabulated in Table 3.6, indicating the potential companies and their respective staff participating in the research. The companies that participated were coded SA01 to SA08, while the participants in the survey were coded as SQ1 to SQ42, and those that participated in the interviews were coded as KI01 to KI1.

Table 3. 6: Data collection activities log

Company	Data Collection Activity	Who (Name & Position)	What (Topic)
SA01	Interview/Questionnaire/	CEO, CFO, COO, CMO, PO and LC	The data collection instruments covered areas highlighted in Table 3.5 that cover the research questions and study propositions
SA02	Interview/Questionnaire	CEO, CFO, COO, CMO, PO and LC	
SA03	Interview/Questionnaire	CEO, CFO, COO, CMO, PO and LC	
SA04	Interview/Questionnaire	CEO, CFO, COO, CMO, PO and LC	
SA05	Interview/Questionnaire	CEO, CFO, COO, CMO, PO and LC	
SA06	Interview/Questionnaire	CEO, CFO, COO, CMO, PO and LC	
SA07	Interview/Questionnaire	CEO, CFO, COO, CMO, PO and LC	
SA08	Interview/Questionnaire	CEO, CFO, COO, CMO, PO and LC	

Source: Researcher (2019)

3.11 Methods of Data Analysis

Data analysis was conducted within the domains of qualitative and quantitative (thematic text and content and descriptive analysis). The study assumed a mixed-method approach to the analyses of

the research data. After data was collected, it was organized and analyzed using the thematic analysis approach for the interviews through NVivo and the descriptive statistics through StataSE for the questionnaires. Tables and bar charts were used to convey the findings. Results of the thematic analysis are described textually and supported with figures highlighting relationships.

3.11.1 Analysis plan

The study's objective was to propose an appropriate enterprise cost conceptual model that alliance managers can use to manage costs in strategic alliances. In doing so, the study identifies two drivers of effective cost management; Standard Activities in Strategic Alliances and Approaches to managing costs. Managing costs depends on the routine activities or alliance cycles and the approaches used to measure and capture costs in a strategic alliance life. This relationship is moderated by the performance metrics and intervening contributing factors, as shown in Figure 3.4:

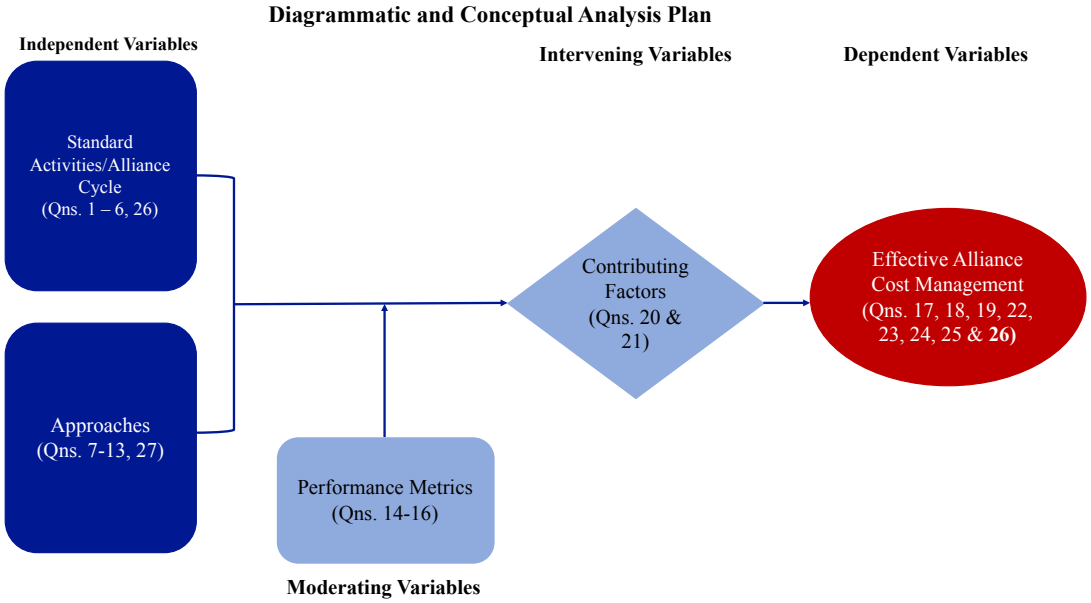

Figure 3. 4: Analysis plan

Source: Researcher (2019)

Research question number one was broken down into the questionnaire to ask questions 1 to 6 and 26 relating to any alliance's phases. At each of these phases in a cycle are standing activities that give rise to costs. These costs could either be financial or non-financial but are critical to the

success or failure of an alliance. In our analysis we evaluated how questions 1 to 6 and 26 impact on questions 17, 18, 19, 22, 23, 24, 25 & 26).

Research question number two was broken down into the questionnaire to ask questions 7 to 13 and 27 relating to approaches required to measure strategic alliances costs. These included traditional cost systems or modern system such as ABC. By their nature, traditional costing systems do not provide sufficient non-financial information; overhead costs are predominant and do not encourage improvements. These approaches determined whether existing costing systems are accurate or not and, in turn, the success or failure of an alliance. In our analysis, we evaluated how questions 7 to 13 and 27 impact on questions 17, 18, 19, 22, 23, 24, 25 & 26)

Research question number three was broken down into the questionnaire to ask questions 14-16 relating to the difference that exists between companies that tend to use certain industry performance metric and if these metric results in better cost management, as answered in questions 17, 18, 19, 22, 23, 24, 25 & 26)—further, questions 20 & 21 interrogated intervening factors contributing to effective cost management in strategic alliances. Enterprise Cost Management align corporate strategy and operational area execution. This allows formalizing goals, establishing accountability metrics and tracking, and ensuring timely plan completion of alliance projects. Therefore, the extent to which the approach can organise alliance activities and cost approaches to management cost culminating into a conceptual cost model can help alliance managers manage their costs better and increase the chances of a strategic alliance's success. The results of questions 17, 18, 19, 22, 23, 24, 25 & 26 helped determine this proposition.

3.11.2 Data analysis transcription

The analysis of each transcribed interview followed the data reduction process, data display and the drawing of conclusions outlined by Miles and Huberman (1994). This process is shown diagrammatically in Figure 3.5:

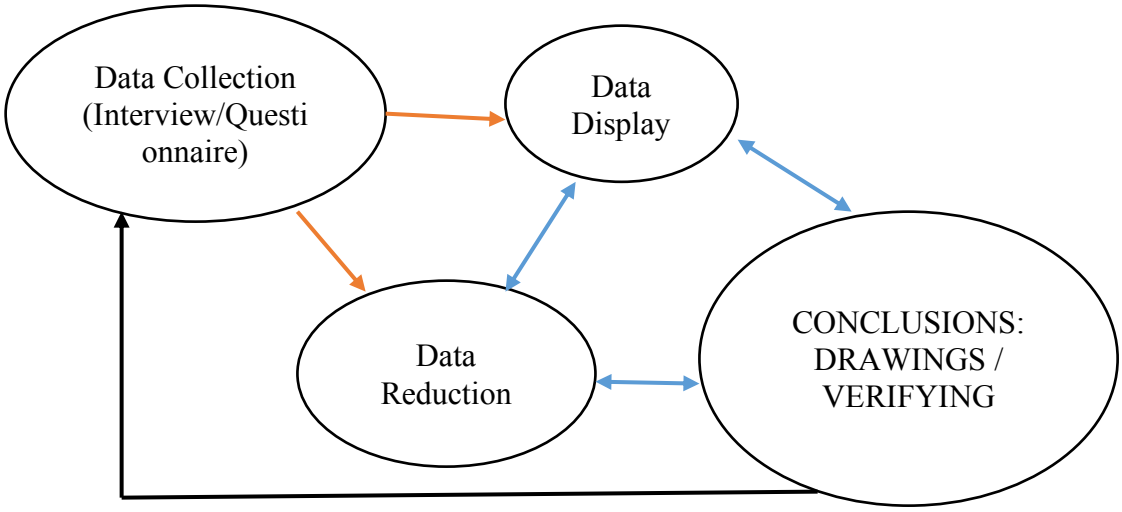

Figure 3. 5: Data analysis components

Source: Miles and Huberman (1994).

The data reduction stage from the Interview transcripts was aimed to simplify and organise the data into more easily manageable components. The process of simplifying the data involved first-level and second-level coding approaches (Punch, 1998). First-level coding involved examining small, discrete text parts and identifying concepts contained in what was spoken. In analyzing the transcribed interviews in this proposed study, each sentence or group of sentences of each interview transcript were examined and labelled with descriptive names. The data was further simplified through the use of second-level coding. This involved examining the first-level descriptive codes and clustering similarly coded units into categories (Strauss & Corbin, 1998). These categories were given a second-level conceptual label. The researcher sought to simplify the data with a third level of coding in which Data Collection Data Reduction similar conceptual categories were further clustered and given a more abstract third-level conceptual label. The data display phase involved mapping second- and third-level categories on a chart into a simplified, compact form. The chart visually represented how categories related to each other and helped identify the key themes emerging from each interview. Key themes emerging from the analysis of each interview transcript were mapped onto another chart to enable comparison across cases to occur.

The conclusion drawing and verification stage sought to note themes emerging from the analysis of each interview transcript and noted similarities and differences emerging from a comparison across cases. This phase offered propositions about emerging themes. A constant comparative approach to data reduction, data display and conclusion drawing was employed. To strengthen the research findings, participants' feedback regarding emerging themes, tentative propositions and conclusions was sought at the end of the entire collection and data analysis process.

3.11.3 Integration of findings

The concurrent embedded strategy of mixed-method research design in mixed methods approach allowed the speeding up of the development process because quantitative and qualitative were executed in parallel. Outliers and salient and subtle discrepancies were examined as these have been proven to be sources of great insight (Jonsen, Fendt, & Point, 2018; Creswell, 2009, Miles & Huberman, 1984). One core feature of the integrative mixed-methods approach is the equal emphasis given to qualitative and quantitative data forms (QUAL + QUANT; Hanson *et al.,* 2005) to facilitate rich, “deep structure” data analyses and interpretations. In the current study, the qualitative approach was chosen to take the lead and supplement it with a quantitative approach.

Onwuegbuzie and Teddlie (2003) conceptualized that when analyzing quantitative and qualitative data within a mixed-methods framework, researchers undergo at least some of the following seven stages: (i) data reduction, (ii) data display, (iii) data transformation, (iv) data correlation, (v) data consolidation, (vi) data comparison, and (vii) data integration. Based on Onwuegbuzie and Teddlie’s (2003) work, Figure 3.6 provides a framework for the current study to link mixed methods research questions to the appropriate steps mixed methods data analysis process.

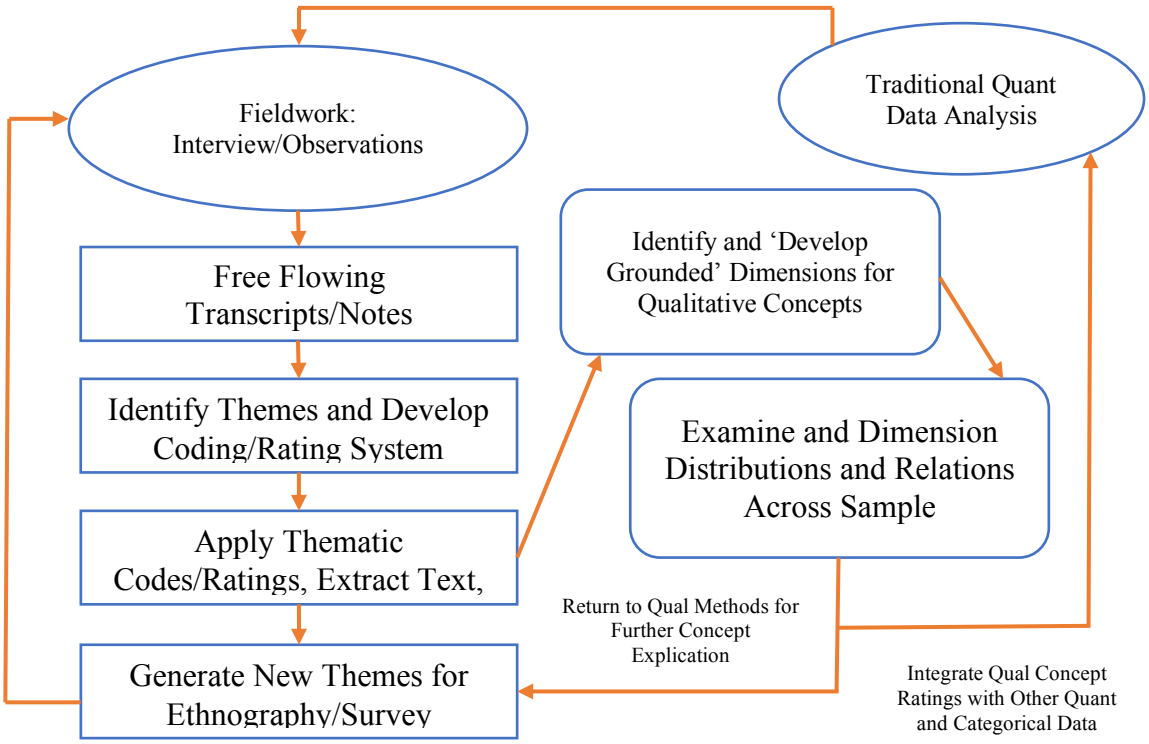

Figure 3. 6: Triangulation analysis log

Source: Researcher (2019)

In concluding the data analysis section, Table 3.7 provides a framework for the current study to link the research questions to the research variables, data collection and data analysis tools.

Table 3. 7: Analysis procedure for research questions

No.	Research Questions	Research Variable	Data collection	Data analysis
1	What main standard activities contribute to costs between strategic alliance partners?	Cost drivers	Questionnaire Interviews Document reviews	StataSE/ Excel/NVivo
2	How should cost in strategic alliances be measured?	Cost metrics Cost and performance relation	Questionnaire Interviews Document review	StataSE/Excel /NVivo
3	What is the practical application of an enterprise cost conceptual model in a real-life alliance project?	Enterprise cost approaches applicability	Questionnaire Expert Interviews	StataSE/Excel /NVivo / Document Analysis

Source: Researcher (2019)

3.12 Validity and Reliability

Kirk & Miller (1986) identified three types of reliability referred to in quantitative research: producing the same results under the same measurement conditions, the stability of measurement concerning time, and the similarity of measurements in a given time period. Accordingly, Creswell (2003) underscored that several validity threats raise issues about the accuracy of the data or results or the application of statistical tests to conclude the effects of an outcome. These are raised due to inadequate procedures like changing the instrument or a tool during an experiment or changing the control group participants under study. This study mitigated this by piloting the interview protocol and questionnaires with experts, both academia and practitioners, in the area of strategic alliances. The study also sought feedback from the research participants. Campbell & Stanley (1963) added that external validity threats arise when the researcher concludes incorrect inferences from the sample data to other persons. This addressed the question of generalisability to whom we can generalise the obtained results. In mitigating this risk, the current study used data from different sources but inferred their respective research questions correctly and obtained results after a careful analysis. In summary, the method of establishing validity and reliability in our study is shown in Table 3.8.

Table 3. 8: Validity and Reliability establishment

Threat	Mitigation	Research Phase in which these occurs
Construct Validity	Used multiple sources of evidence Established a chain of evidence Had key informants review draft data collection instruments & draft report.	Data collection
Internal Validity	Did pattern matching Did explanation building Addressed rival explanations.	Data analysis
External validity	Data triangulation.	Research design
Reliability	Used study protoco.l	Data collection

Source: Yin (2009)

This study utilized the mitigation strategy to enhance the validity and reliability outlined in Table

3.8. The study explored the validity and reliability of qualitative and quantitative studies using various scholarly insights. For example, according to Huberman and Miles (1994), theoretical validity depends on whether there is consensus within the community concerned. The questions used in the questionnaire and interview guide were drawn from the literature review and summarised by the researcher with the guidance of the supervisor and other field experts. Triangulation is another approach that augments the trustworthiness and validity of findings. This also helped make the findings reliable and establish the reliability of the proposed Enterprise Cost Management conceptual model in Chapter 6. The following types of validity were considered:

(i) Validity

Assessing the validity of a measure usually includes quantifying convergent validity and discriminant validity. In other words, validity is the degree to which a measure covers the range of meanings that are part of the concept to be measured. The supervisor and experts assessed content validity for the measurement tool's clarity, comprehensiveness, and redundancy. Several ways of assessing validity were explored: face, concurrent, predictive, construct or measurement, and convergent (Bryman & Bell, 2017).

(ii) Face Validity

Bryman and Bell (2017) refer to the idea that in face validity, the measure reflects the concept's content in question with an attractive format. In this study, the supervisor was engaged extensively. This engagement was tenacious until the questionnaire and interview guide were deemed sufficiently valid and attractive to the respondents.

(iii) Measurement Validity

Measurement validity is whether a measure devised from a concept reflects the substance it is supposed to denote (Bryman & Bell, 2017; Creswell, 2015). This was attained by distinctly defining the concepts and constructs that had to be measured in the questionnaire, interview guide, and pilot study.

(iv) Internal Validity

Internal validity is about causal relationships. This study was conducted so that the effects of extraneous factors on events were ruled out in interpreting the data. As mentioned in Chapter 3, Section 3.8.3, they were tested in a pilot survey for refinement after constructing the questionnaire and the interview guide. Nonetheless, the questionnaire and the interview guide were criticised by field experts familiar with the nature and scope of the study and questioned construction principles (Bryman & Bell, 2017; Creswell, 2015). The data was subjected to reliability analysis, and no question was removed. This also allowed us to determine the time the questionnaire would take to be administered when feedback was obtained from the respondents. The pilot study helped the researcher discover the potential problems, test the interviewer's credibility by presenting and explaining the questionnaire to respondents, check if the principles of construction had been attained, and evaluate how and if the questionnaire was understood.

(v) External Validity

External validity deals with the question of whether the results of a study can be generalised beyond the specific research context (Bryman & Bell, 2017; Creswell, 2015). This research used the purposive sampling method to achieve this, which enabled the researcher to collect information from respondents with specialist knowledge of the strategic alliance, capacity and willingness to participate in the research (Oliver, 2013). This method provides a better way to obtain the views of persons with specific expertise. The disadvantage of this type of purpose sampling is that even the experts can be, and are often, wrong (Bernard & Ryan, 2010). The sample was also large, with 63 respondents. This study's external validity was satisfactory, with an acceptable response rate of 84.12% and a representative (53) sample.

(vi) Reliability

Reliability is a respondent's tendency to answer similarly or commonly to an identical query. A measuring instrument's reliability is not affected directly by systematic errors, as these systems affect the measurement. The unstable errors are mainly adversely affected by reliability as these generate low reliability in measuring instruments. A good measure should be reasonably reliable and yield consistent results (Bryman & Bell, 2017; Creswell, 2015). To explain more clearly, when a researcher has unreliable measures, relationships between variables usually appear to be weaker

(Warner, 2008). In other words, reliability refers to the accuracy and precision of a measurement procedure (Thorndike, Cunningham, Thorndike & Hagen, 1991). Reliability may be viewed as an instrument's relative lack of error. In this study, the reliability was based on the following sets of questions considered to be measuring the same constructs, namely:

- What main standard activities contribute to costs between strategic alliance partners?
- How should costs in strategic alliances be measured?
- What is the practical application of an enterprise cost conceptual model in a real-life project?

Fifteen (15) respondents were purposively selected, and 11 were interviewed in detail. Of the targeted forty-eight (48) respondents in the random sample administered by the questionnaire, 42 (88%) responded positively, which, according to Schnetler (1989), is deemed acceptable. Therefore, it is affirmed that the response rate was acceptable, and the findings could be reliable, valid, and generalised over the target population. The following sections present the results of the interviews and questionnaires about the key study concepts and constructs. The results are presented in the concurrent embedded strategy format is akin to the mixed methods approach used in this study. In other words, each section presents the interview results followed by the questionnaire results to ensure the embedding of the results.

3.13 Ethical Issues in the Study

Ethical issues in research refer to the moral principles, standards, or norms of behaviour that guide our behaviour choices and our relationships with others during a research study (Blumberg *et al.,* 2005). The major cornerstone of research ethics was anchored on avoiding causing harm, physically or psychologically, to the subjects of study or any other persons affected by the process. Accordingly, Saunders *et al.* (2007) identified several interrelated issues regarding research ethics that the research process must address in order for it to be deemed as being ethically constituted. The issues cover the entire life span of the research process and are summarised in Table 3.9.

Table 3. 9: Summary of ethical issues addressed

A phase of the research process	Ethical issues addressed
Throughout the process	Acknowledged the work of others when used in the research process Pursued an objective principle in the research process
Solicitation of access	Respected the right to privacy for actual participants Right to know and hence consent to the process without any deception Respected the right of voluntary participation; and the right to withdraw from the process
Data collection	Respected confidentiality maintenance for the data provided by individuals or identifiable participants and their anonymity. Avoided the harming of participants through physical pain or psychological effects such as embarrassment, stress or discomfort when collecting data.
Data analysis and interpretation	Avoided the effects that could eventually harm the participants from how data is used, analyzed and reported.

Source: Saunders *et al.* (2007)

The University of South Africa, the Graduate School of Business Leadership (UNISA SBL) has policies and procedures to detect and report misconduct and penalize researchers who engage in misconduct. These policies and procedures are stated in the following three documents:

i. Doctor of Business Leadership Degree Rules and Procedures;
ii. Masters and Doctoral Degrees in General Information; and
iii. The Master's dissertation and doctoral thesis guide research and material organisation.

This research was respected, observed and adhered to the above ethical research standards. This study further agreed with Denzin & Lincoln (2000) that a professional code of ethics is beneficial as a guideline that alerts researchers to their work's practical dimensions, particularly before entry. The study further obtained relevant consent from the research subject, UNISA and local approvals from the national research regulatory authority to conduct research in Zambia. Given the above, the researcher is confident that there were adequate ethical controls and commitment to ensure

adherence to the ethical codes and principles during this research.

3.14 Chapter Summary

This chapter provided an outline of the research methods that were followed in the study. The descriptive research design was used to explore answers to the problem, questions and research objectives relating to an enterprise cost management conceptual model for managing costs in strategic alliances to enhance corporate performance. The study also used the mixed methods research design with a pragmatic worldview and the concurrent embedded strategy, which was justified in this chapter. The interview guide and questionnaire were used to collect data and better understand the cost management approaches in strategic alliances. The study included the non-probability sampling method and procedures followed. This chapter also provided information on the respondents: the analysis of the unit, criteria for inclusion and exclusion in the study, who the respondents were and how they were sampled. The methods used to analyze the data were also examined. Finally, the chapter also discussed the validity, reliability, and ethical issues affecting the studies and how these were applied.

CHAPTER 4 - RESEARCH FINDINGS AND RESULTS

4.1 Introduction

This chapter presents the results from the study, provides the data description, how the research questions were approached, presents the result of the research findings obtained from the returned questionnaires and interviews and discusses the results. In line with the selected contemporary embedded research design in chapter 3, the analysis of the study results is presented in a single composite assessment as both quantitative and qualitative data were collected concurrently. The literature reviewed in chapter 2 revealed that the existence of a comprehensive enterprise cost approach for strategic alliance success was not fully investigated, developed and presented. Therefore, this study sought to fill the theoretical and empirical gap by developing an Enterprise Cost Management (ECM) conceptual model for managing costs in strategic alliances. The main research problem was posed as per the following question:

> *What appropriate enterprise cost conceptual model can alliance managers use in managing costs in strategic alliances?*

Given the research question, the study addressed the following sub-research questions and propositions:

> **RQ 1:** What main activities contribute to costs between strategic alliance partners?
>
> **RQ 2:** How should costs in strategic alliances be measured?
>
> **RQ 3:** What is the practical application of an enterprise cost conceptual model in a real-life project?

The observations in the problem statement led to the following propositions:

> **P_1:** There are no specific main standard activities that give rise to costs between strategic alliance partners.
>
> **P_2:** There are no specific approaches that are required to measure costs in strategic alliances.

P_3: The lesser application of the appropriate enterprise cost conceptual model in a real-life project, the lower its corporate performance.

The mixed methodology data analysis provided a holistic view of internal and external contextual factors. This allowed the research to be deductive (quantitative) and inductive (qualitative). The research instruments included both the questionnaire and interview guide. The study included 63 respondents willing to participate in this research, of which 53 participants responded, representing an 84% response rate, i.e. 42 responded out of 48 for questionnaires (88%) and 11 participated in the interviews (73%) out of 15 targeted samples. To identify the research participants regarding the interviews, it was decided to use alliance managers who were regarded to have sufficient knowledge and experience with strategic alliances and able to identify and evaluate costs associated with strategic alliances. The sampling method used for the research is thus purposive (non-probability). As detailed methodology in chapter 3, the sample was intentionally non-random. During the interviews, the focus was placed on identifying the main standard activities contributing to costs between strategic alliance partners, how costs in strategic alliances should be measured, and the practical application of an enterprise cost conceptual model in a real-life project. Information from the interviews (descriptive content) helped indicate the context surrounding the strategic alliances that might have influenced respondents' views of the examined variables. This qualitative analysis contributed to understanding the results of the questionnaire results.

4.2 Demographic Analysis of Participants

Overall, the researcher contacted the respondents using telephone and e-mail for participation in this research, and 73 people were contacted. The process continued until at least 63 respondents were willing to participate in this research, of which 53 participants responded, representing an 84% response rate, i.e. 42 responded out of 48 for questionnaires (88%) and 11 participated in the interviews (73%) out of 15 targeted sample. As for the questionnaires, the majority of the respondents (57%) were males (n=24), while 43% were females (n=18), as illustrated in Table 4.1. When asked about their age, two-thirds (67%) were between 40 to 49 years (n=28), followed by the (19%) age bracket of 34 to 39 years (n=8) and the minority (14%) were over 50 years (n=6), who were mainly in senior management positions. Table 4.1 summarises of the participants' profiles for the questionnaires.

Table 4. 1: Questionnaire: Respondents by background characteristic (n=42)

Respondents' Details	%	Population Estimates (n)
Gender		
Male	57%	24
Female	43%	18
Age Group		
34-39	19%	8
40-44	33%	14
45-49	34%	14
50+	14%	6
Educational Attainment		
Undergraduate Degree	52%	22
Post graduate	48%	20
Year of Experience in the Enterprise		
1 to 5 years	19%	8
6 to 10 years	24%	10
11 to 15 years	14%	6
16 to 20 years	43%	18
Occupation		
Accountant/Finance professional	24%	10
Engineer	43%	18
Lawyer	10%	4
Marketing Professional	18%	8
Other	5%	2
Area of Operation		
Accounting and Finance	19%	8
Human Resource	5%	2
Information Communication Technology	37%	16
Legal	10%	4
Marketing Operations	10%	4
(administrative, sales)	5%	2
Procurement	14%	6

Notably, close to half of the respondents (43%) (n=18) had been working in their respective companies for a period of 16 to 20 years, followed by those (38%) (n=16) that had spent 6 to 15 years and a fifth had been with their organisation for 1 to 5 years. The respondents included chief executives (17%) (n=7), chief financial officers (29%) (N=12), chief operating or technical officers

(22%) (n=1), marketing professionals (21%) (N=9), legal counsels (10%) (n=4) and One (n=1) procurement officers (2%) in the sector.

Table 4.2 is a detailed profile of the key informants that participated in the interviews. The majority of them (73%) were males (n=8), while 27% were females (n=3), as illustrated in Table 4.2. When asked about their age, seven (n=7) (64%) were between 40 to 49 years, followed by three people (n=3) (27%) in the age bracket of 34 to 39 years and the other person (n=1) (9%), was over 50 years, who was also in a senior management position.

Table 4. 2: Qualitative respondents by background characteristic (n=11)

Respondents' Details	%	Population Estimates (n)
Gender		
Male	73%	8
Female	27%	3
Age Group		
34-39	18%	2
40-44	45%	5
45-49	27%	3
50+	10%	1
Educational Attainment		
Undergraduate Degree	45%	5
Postgraduate	55%	6
Year of Experience in the Enterprise		
1 to 5 years	18%	2
6 to 10 years	45%	5
11 to 15 years	27%	3
16 to 20 years	10%	1
Occupation		
Accountant/Finance Professional	27%	3
Engineer	36%	4
Lawyer	10%	1
Marketing Professional	27%	3
Area of Operation		
Accounting and Finance	27%	3
Information Communication Technology	36%	4
Legal	10%	1
Marketing Operations	27%	3

Nearly half (n=5) of the respondents (45%) had been working in their respective companies for a

period of 16 to 10 years, followed by (n=3) (27%) who had spent 11 to 15 years, then two respondents (n=2) (18%) had been with their organisation for one to five years while one person (n=1) (10%) had an experience of between 16 to 20 years. Among them were four (n=4) engineers (36%), three (n=3) financial professionals (27%), three (n=3) marketing professionals (27%) and one (n=1) legal counsel (9%).

4.2.1 Profile of firms and their involvement in strategic alliances

When asked if their organisation was engaged in any strategic alliance, all the respondents reported that they were currently engaged in some strategic alliances at different levels, as illustrated in Figure 4.1. The respondents were asked to state how many strategic alliances their enterprise was involved in. Figure 4.1 is a detailed profile of how many alliances each enterprise has been involved in. Most respondents (n=23) (43%) revealed that their organisation was involved in 1 to 5 or 6 to 10 strategic alliances. Five (05) respondents representing 10%, indicated that their organisations were involved in 11 and above strategic alliances.

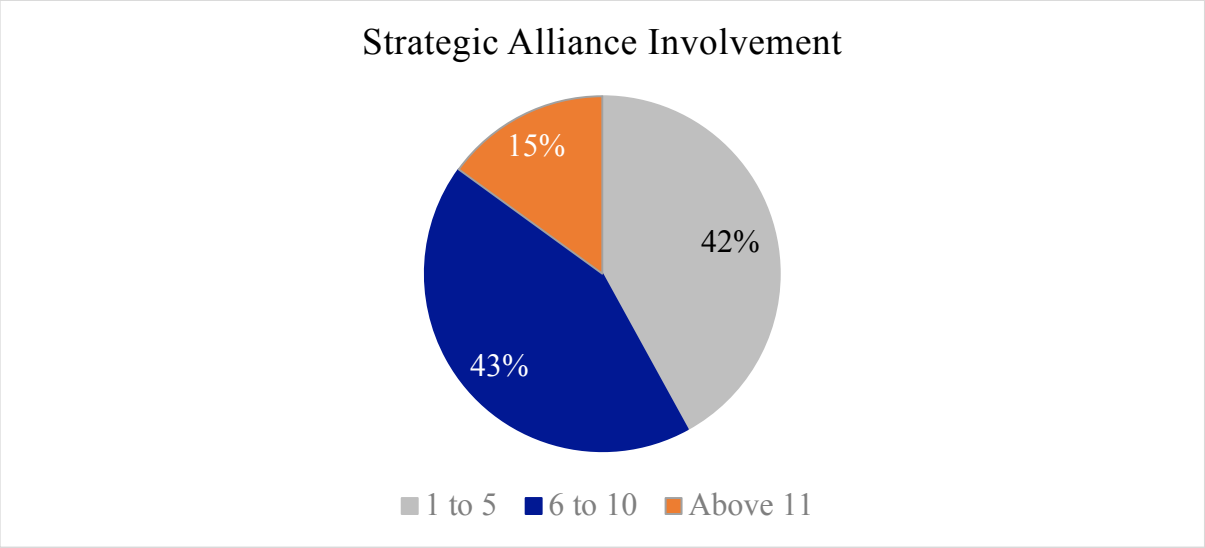

Figure 4. 1:Respondents Involvement in active strategic alliances

This information was essential in developing a comprehensive understanding of the market and making an appropriate judgment on the factors that drive organisations to form strategic partnerships. Respondents whose organisations were involved in strategic alliances were asked about the type of strategic alliances they were engaged in. Figure 4.2 illustrates the responses of the type of strategic alliances their organisations were engaged in.

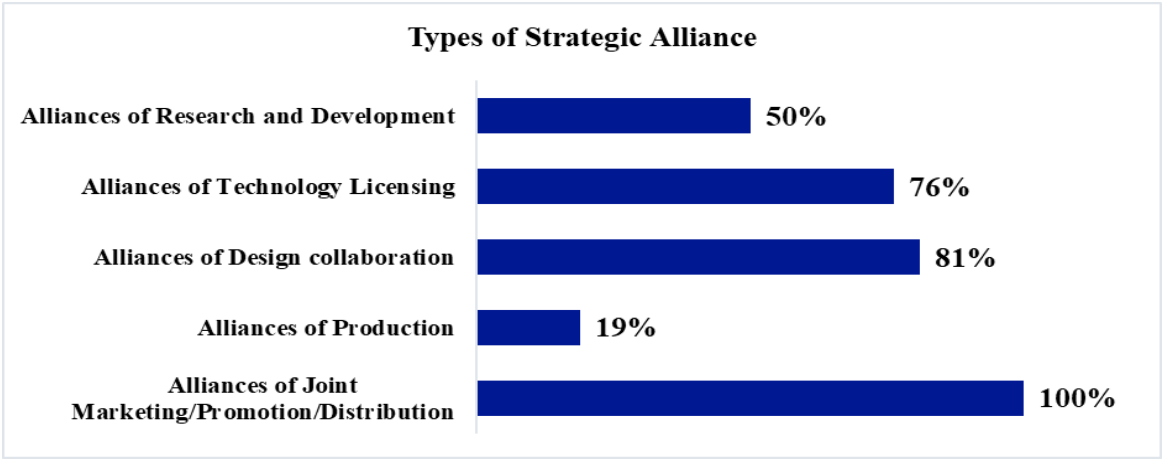

Figure 4. 2: Types of strategic alliance

All 53 respondents (100%) revealed that their organisation is engaged in joint marketing, promotion, and distribution alliances. 81% of the respondents reported in alliances of design collaboration, while 76% reported being in alliances of technological licensing. 50% of the respondents reported strategic alliances in research and development. Asked about the functional participation in strategic alliances, most participants (56%), i.e. 29 respondents, were involved in the day-to-day management of the alliances, while about a quarter (23%) were negotiators, as illustrated in Figure 4.3.

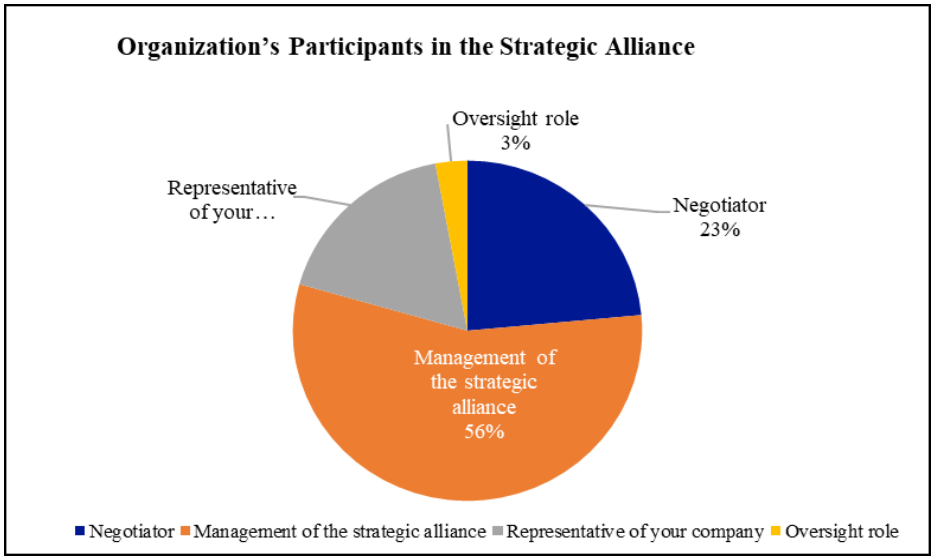

Figure 4. 3:Organisation's participation in the SAs

When asked about the sector of partnership each organisation/institution is engaged with, all 53

respondents (100%) indicated that they are engaged in a strategic alliance within the telecom sector, as indicated in Figure 4.4.

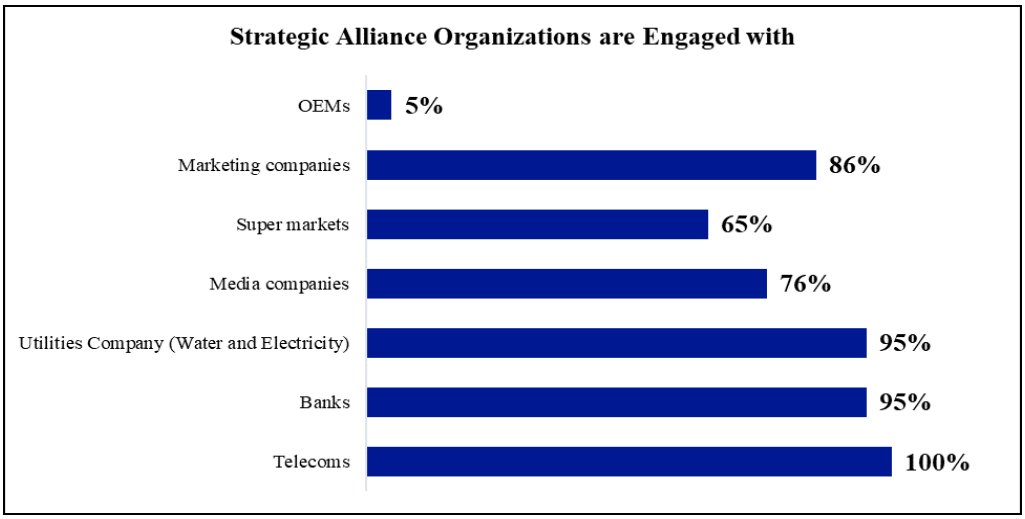

Figure 4. 4:Strategic alliance organisations engaged

Other strategic alliance partnerships that they are engaged with include Banks (95%), Utility companies (95%), Medial companies (76%), Supermarkets (65%), Marketing companies (86%) and 5% are with Original Equipment Manufacturers (OEMs). Overall there was a mixture of views on what respondents perceived to be ideal strategic alliances that organisations were engaged as shown in Figure 4.4

Companies in this study were picked from the population of companies registered with the ZICTA with due attention to the four pillars of the telecom sector: the fixed-line, international gateway, mobile telephony and Internet markets/Internet Service Providers (ISPs). Figure 4.5 demonstrates that a third, 17 respondents (33%), are in Internet markets/Internet Service Providers (ISPs). Two quarters are shared between mobile telephony (28%) and international gateway (23%), while the rest are in fixed telephone lines.

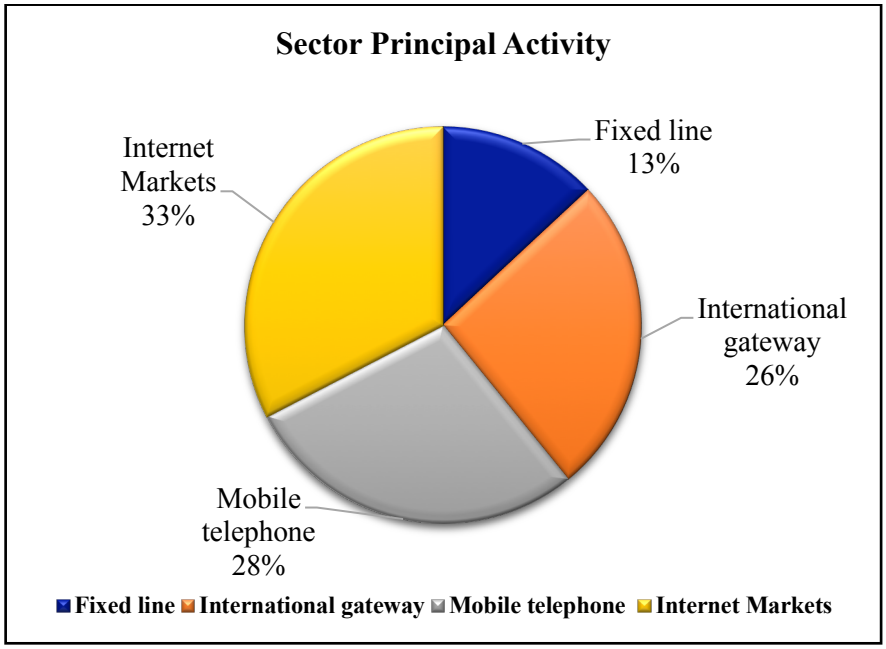

Figure 4. 5:Sector principal activity

This information provided in the demographics was essential in developing a comprehensive understanding of the market and making an appropriate judgment in the findings and analysis process. The alliance managers in this study were regarded as having sufficient knowledge and experience with strategic alliances and identifying and evaluating costs associated with strategic alliances. The researcher's level of experience and data enabled the researcher to come up with reliable and practical insight into strategic alliances from a Zambian perspective.

4.3 Quantitative Findings for Standard Activities that Give Rise to Cost

This section presents results related to quantitative findings for the first Research Question (RQ01). RQ01 asked; *What are the main standard activities contributing to costs between strategic alliance partners? Moreover,* proposition one **(P_1)** stated: *There are no specific main standard activities that give rise to costs between strategic alliance partners.* The questionnaire asked questions from QNA1 to QNA6, whose findings are presented in the following sub-sections.

4.3.1 Strategic alliance life cycle and system of capturing business activities

Figure 4.6 provides findings of questions QNA1 relating to life cycles that strategic alliances would go through from start to end:

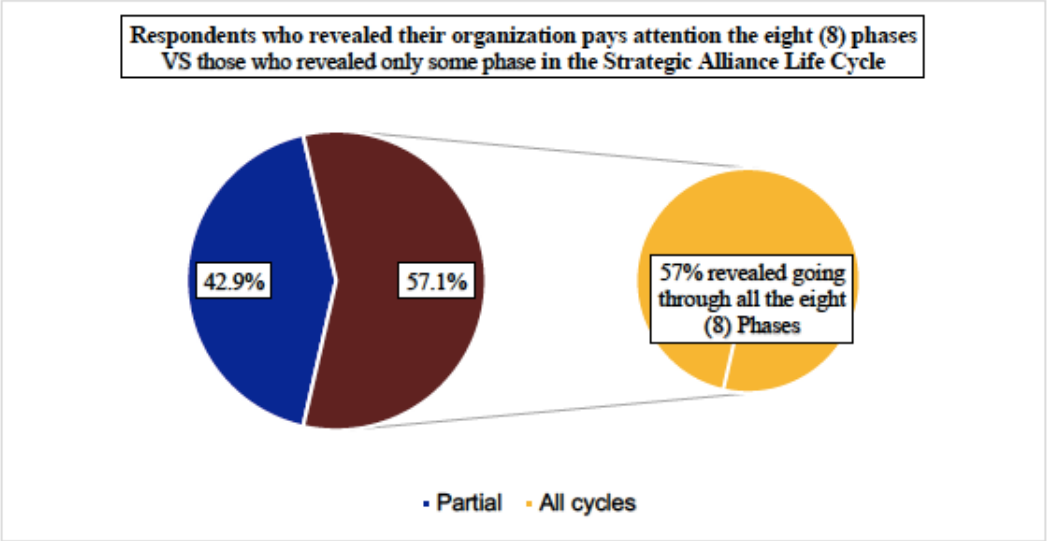

Figure 4. 6:Respondents who pay attention 8 phases

Respondents were asked to categorize their strategic alliances in the life cycle. The majority (n=30) of the respondents (57%) agreed that they go through the eight stages of a strategic alliance life cycle, i.e., Alliance start-up & strategy to Alliance sustaining/retiring, while 43% of the respondents go through partially in the cycle.

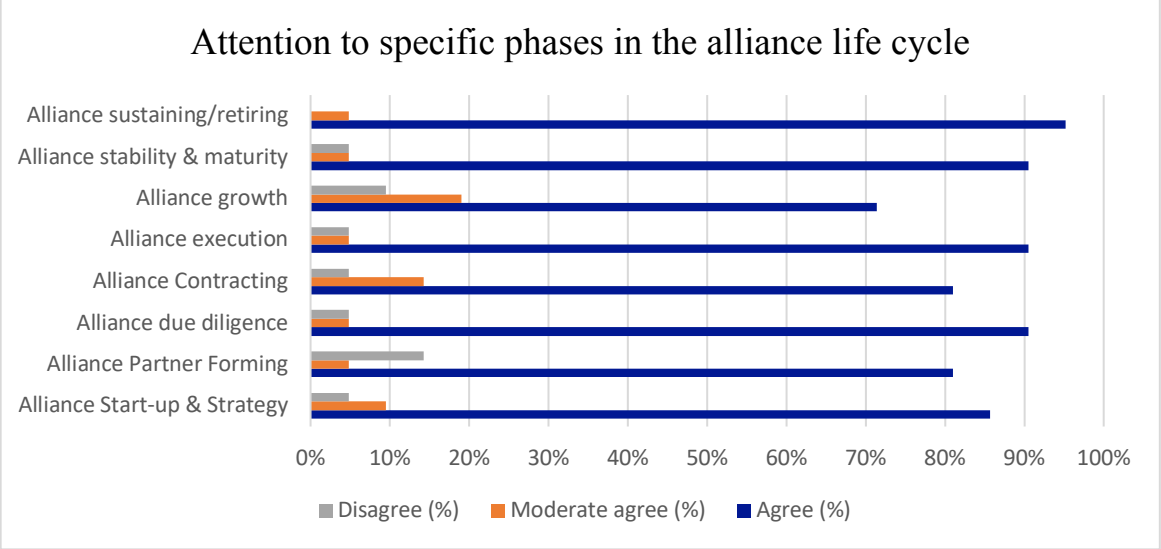

Figure 4. 7:Respondents who pay attention to specific phases in the alliance life cycle

The data also revealed that the majority of the organisations in telecoms pay attention to alliance sustainability (95%), alliance due diligence (91%), alliance execution (91%) and alliance stability and maturity (91%).

Respondents were asked to state if they had a system for capturing all business activities related to strategic alliances. The finds are shown in Figure 4.8

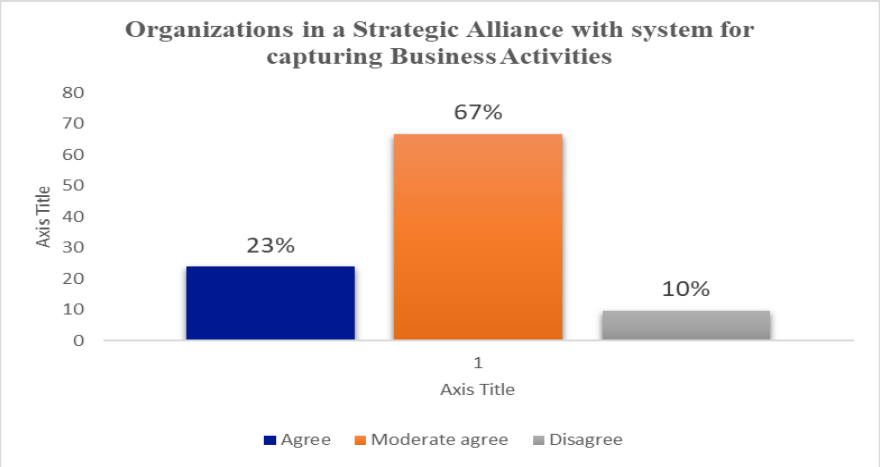

Figure 4. 8: Organisations with a system for capturing business activities

Only about a quarter (n=20) of the organisations engaged in strategic alliances had a system of capturing business activities related to their strategic alliances. The majority of the respondents (67%) only had partial systems of capturing business activities, and 10% of these organisations did not have any system in place. It follows that effective cost management approaches must have a system of capturing business activities to provide a cost basis; *availability of systems to track progress in a strategic alliance.*

4.3.2 Nature of activities Information produced while in strategic alliances

As seen in Figure 4.8, the respondents confirmed the necessity for a system to capture all business activities related to strategic alliances. Building on this, responses to QNA3 show in Figure 4.9 that the activities must be quantified and cost.

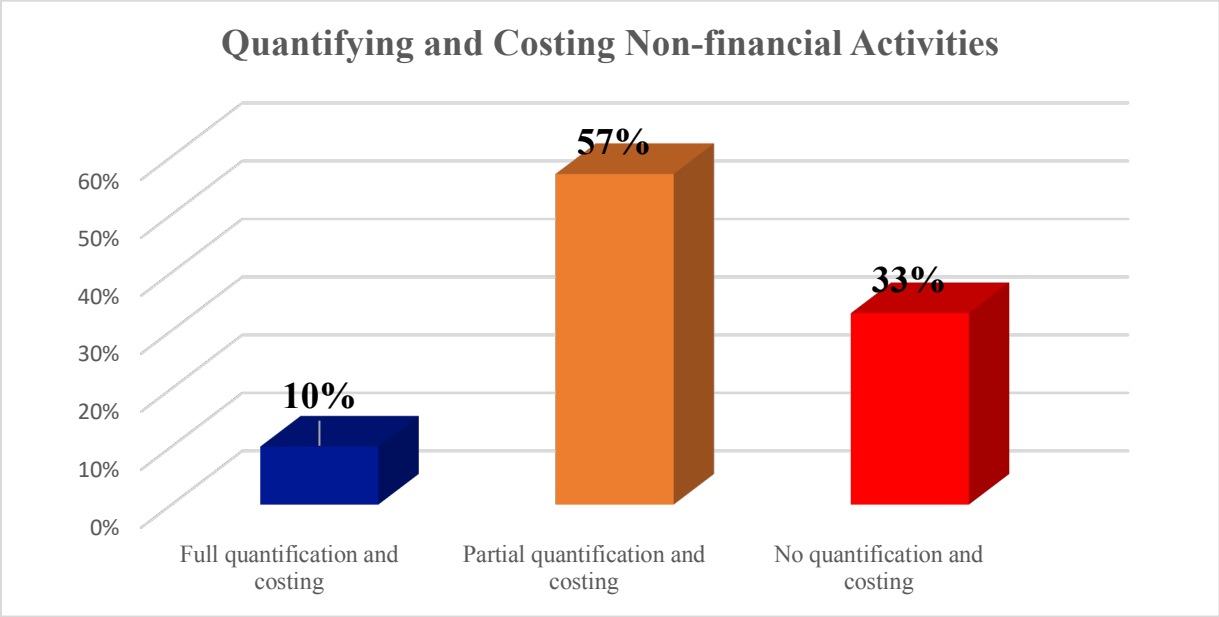

Figure 4. 9: Non-financial activities cost and quantified in all alliances

Moreover, these include quantifying both the financial and non-financial costs of strategic alliances. Most organisations (57%) surveyed partially cost and quantified non-financial activities within their strategic alliances, with a third (n=33) not at all.

During the implementation and management of strategic alliances, organisations produce different types of information for monitoring and evaluation. The study in question QNA4 asked to what extent each organisation produced the different types of the following information:

(i) Resource (material, plant, Labour) schedules.
(ii) Resource (material, plant and Labour) budgets.
(iii) Activity or task breakdown cost or budget.
(iv) Schedule of activities.
(v) Project day works schedule.
(vi) Project profit and loss account.
(vii) Project cash flow.
(viii) Labour and plant time sheets.
(ix) Price inflation price adjustment index.

Figure 4.10 shows this information produced by an organisation engaged in a strategic alliance, whether fully or partially.

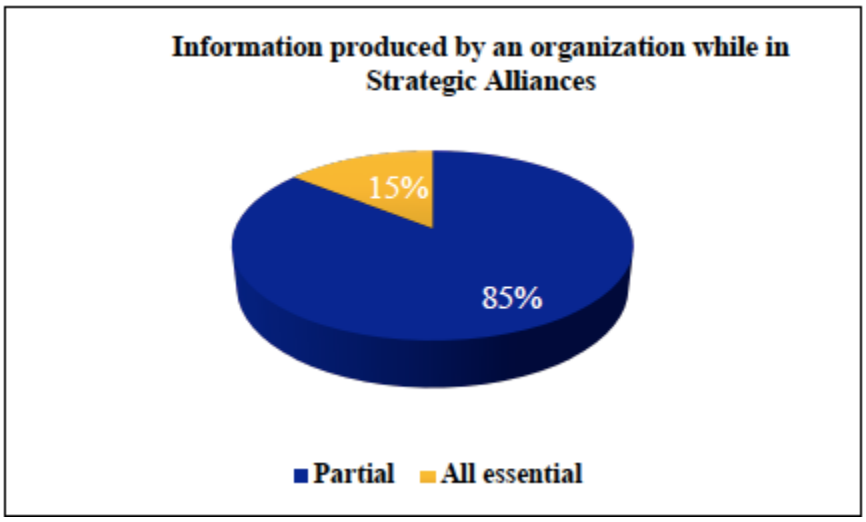

Figure 4. 10: Information produced by an organisation while in strategic alliances

Of these, five were identified as essential types of information needed for effective alliance and cost management, i.e. (i) Resource material, plant and Labour, (ii) budgets, Schedule of activities, (iii)Project day works schedule, (iv) Project profit and loss account and (v) Labour and plant time sheets. Based on the study findings, the majority (85%), i.e. 45 respondents from 8 organisations surveyed, produce parts of the essential information requirements, while eight respondents representing 15% from two organisations produce all the essential information requirements.

From the organisations surveyed, the costs of most of them (55%, n=6 companies) are driven in partnership, while 45% of the organisations said that their costs are either driven by one party, as shown in Figure 4.11 arising from QNA5.

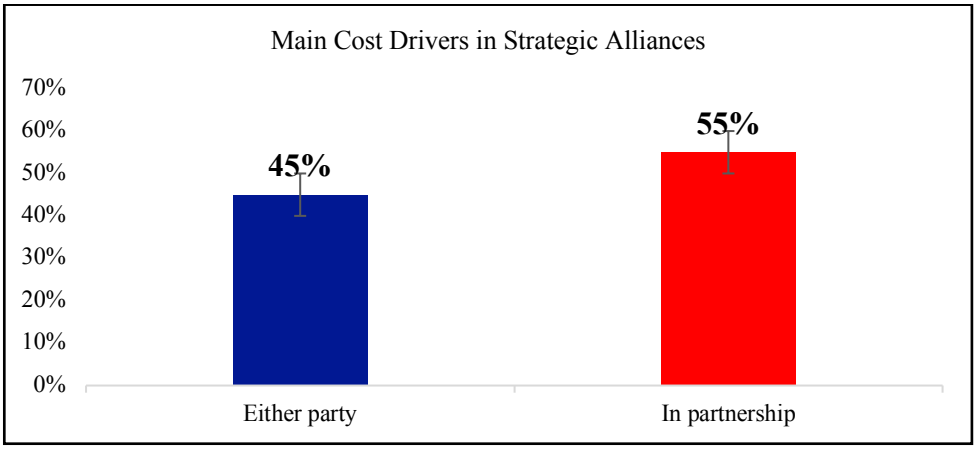

Figure 4. 11: Main cost drives in strategic alliances

Being in charge of driving costs would result in better and effective cost management within an alliance.

4.3.3 Level of information for decision-making in strategic alliances

The respondents in QNA6 were asked to indicate the level of information they produce for decision-making during the life of an alliance. This information was at three levels, namely:

(i) Process Category (PC) levels;
(ii) Management Process (MP) level;
(iii) Business Process (BP) level;

As indicated in Table 4.4, 33% of the organisations (n=17) produced this information at all levels, while the majority (67%) produced information partially at different levels.

Table 4. 3:Level of information for decision-making

Level of Information for Decision-making	%	n estimates
Partial	67	36
All Levels complete	33	17
Total	**100**	**53**

From the results, it follows that to ensure effective cost management and a successful alliance, information must be produced at all levels (organisational-wide or enterprise) of the alliance's

decision-making. In the rest of the study, the term enterprise is adopted to mean organisational-wide.

4.4 Qualitative Findings Standard Activities that Give Rise to Cost

The interview guide asked questions QLB6-B10 that related to routine activities that give rise to costs in strategic alliances.

4.4.1 Strategic business collaboration

The interview results from QLB6-B7 showed that the Input supply, competition control measures, and strategic business collaboration were reconsiderations for forming strategic alliances. When asked about the factors influencing organisations to formulate strategic alliances, three (3) main factors were identified as key factors in forming a strategic alliance. Input supply, competition control measures and strategic business collaboration are amplified in Text box 4.1.

Text Box 4. 1 Alliance partnership

Strategic Alliances helps us source for our input, amanage compatetions and collaborate strategically. When we talk about relationship with suppliers, we have strategic alliances to easier our processes of sourcing for inputs ***(KI03 with input supply strategic alliance)***.

Other key informants stated that forming strategic alliances was used as a competition control measure. An organisation may join forces instead of competing with existing competitors to create an enhanced product; this partnership helps businesses proliferate. It also helps organisations to manage the ever-increasing level of competition. Three themes emerged, Input supply, competition control measures, and strategic business collaboration as reconsiderations for forming strategic alliances in tandem with the results of the questionnaires in the responses to QN B19-1 to QN B19-3. The motives for forming strategic alliances are summarised as benefits of cost-sharing, benefits of reducing costs at different satisfaction levels, shortening the product life cycle, the benefits of risk management and addressing the reasons why firms enter into a closer business relationship.

Text Box 4. 2: Input supply strategic alliance

*Strategic Alliances are mainly influenced by the organizations/institutional mutual benefits. A very good example are strategic partnerships in telecommunication is that of TATA in Africa. TATA has no presence in Africa, and being one of the big players in the telecommunication industry, if TATA has a customer anywhere in Africa, their talk to their strategic partners to delivery links or anyother services to that customer on they behalf. Then that's the way TATA enhance it's footprint Globally of their services and strategic parteners benefit by charging them for the services that are provided on their behalf (**KI07 whose organization has a strategic alliance for business collaboration)**.*

The interview provided a more in-depth description of the types of SAs summarised in Text box 4.3:

Text Box 4. 3: Categorisation of strategic alliance

We have several strategic alliances, and for anyone doing business at power sub-sector level, it is important to have strategic alliances at supply level, at distribution level and at group level. A good example is when our international partners in these strategic alliances have a customer say in Africa, they ask us to go do business with their customers on their behalf. This kind of strategic partnership with international telecommunication companied helps in providing linkages in countries where they might not have a physical presence ***(KI02, whose company had Strategic Alliances at Supply and Distribution Level with an international partner)****.*

We also have Original Equipment Manufacturers (OEM) such as Nokia, Samsung, Apple who sell us devices like phones, routers, modems and the like. These devices for instance would be part of our strategic objective to grow our customer base. For phones, a certain number of features are used to differentiate them from other competing products. Features like network or technology type (for example 4G or 3G phone / 4G or 3G router) these features helps us grow our customer base and achieve our business objective to grow our revenue from data or acquire more customers who use our data services. It's up to us as an institution to package and present this product in a way that is going to differentiate the product please the eyes of the customer ***(KI06 whose company have Strategic Alliance that authorizes them to market Original Equipment Manufacturers (OEM)).***

Regardless of what we are trying to do, we always seek out for strategic partnerships that add value to our corporation and the overall business objectives. We have partnered with financial institutions that helps us give out loans or allow people to make payments on their mobile money platforms. These alliances are mutually beneficial and usually they might be exclusive to our corporations (for example Airtel has partnered with master-cards to provide cards that work on our mobile money platform so that customers make payments whether it's online or at the point of sale ***(KI04 whose company had Strategic Alliances that allows them to provide Mobile Financial Services)****.*

The findings of the in-depth interviews show that firms engaged in strategic alliances at different levels and motives. However, in the end, they must create value for the organisation. The study further revealed that businesses are guided by different characteristics of their strategic objectives in formulating strategic partnerships with strategic alliances at different levels depending on the strategic objectives as cited by KI06, shown in Text Box 4.4.

Text Box 4. 4 Strategic alliance decision-making process

*When going into strategic alliances, we obviously look at the request presented to us to form strategic partnership to understand what our potential partner have in mind; We want to know what they want to target; we look at how well the proposed partnership speaks to our vision…; we look at where we want to position ourselves; What are the advantages of us partnering with this particular entity….;We look at what is it that we are going benefit from such a partnership; and if the findings make sense, we then go into that partnership….**(KI06 explaining strategic alliance decision making processes).***

These responses indicate the need for partners to conduct thorough due diligence and have a checklist to verify the organisation's common objectives.

4.4.2 Staff responsibility for managing strategic alliances

During interviews, a probing question was asked about who runs the alliance and how staff are allocated to the strategic alliances. The key informant responded that management delegated authority to a member of staff to manage strategic partnerships guided by the corporate governance structures. It emerged that in some organisations, staff responsible for managing strategic alliances are appointed by senior management regarding their relevant qualification and experience in the field. The details of these responses to QLB8 are included in Text box 4.5:

Text Box 4. 5: Staff's allocation in a strategic alliance

Obviously as a business we are guided by our cooperate governance structures. This structure has the management team that have delegated authority of the board to run the business, and the Board of course has delegated authority of the shareholders. Within that cooperate governance structure, we have thresholds which are agreed upon between management and the board in terms of what levels of arrangements should be approved by the board and what levels of arrangements should be approved by management and based on what we have agreed to pursue, a suitable and qualified person in that field will be assigned to take up the assignment… ***(KI05 on staff respossibility on roles of management and the board).***

The Executive of the company set the overall strategic objectives and the senior manager responsible for that function will be the responsible person to ensure that it is executed as per the agreed objectives. So in terms of the operationalizing that strategy the senior function manage is responsible for that function and makes sure that the team that is working on it is doing exactly what was agreed on. It is his responsibility to make sure that everything is done, and when it is done he also checks whatever is done to see whether the work was executed as per required standard… ***(KI06 on the respossibility of the executive and senior management).***

Generally, strategic alliances are operational, management does have the authority or the mandate to decide which one to pursue to work with, but this lies with the boards. The boards give consent to the value these strategic alliances should pursue and the essential responsibilities assigned. Furthermore, some organisations are responsible for managing a strategic alliance by specific functionality. Some key informants indicated that the finance and sourcing/procurement department would manage an alliance. What was expected was that the technical team with expertise in the strategic alliance under consideration would be assigned responsibility in further responses to QLB8 on responsibility and allocation of staff to a strategic alliance.

Further, key informants were probed in QLB9 to describe a strategic alliance life cycle's operational process. From Text box 4.5, the following themes emerged:

i. Reconnaissance
ii. Legal consideration and Contracting
iii. Agreement on Business objectives
iv. Technical arrangements
v. Testing and piloting
vi. Commissioning
vii. Management and maintenance
viii. Maturity

Details of the interview regarding QLB9 are included in Text Box 4.6 below:

Text Box 4. 6: Processes of strategic alliance partnership

*Obviously there is a cycle, for example if it's a new business that has come in; the business cycle starts with… perhaps a site survey of an area where this link is going to be installed, you then devise a plan on how you are actually going to handle the installation. Once the installation is handled and commissioned, then you go into maintenance. In particular those are the different aspects of the project cycle…(**KI01 describing operational processes of a strategic alliance life cycle).***

In responding to question QL09, a Chief Executive Officer, KI09 from SA05 firm, gave a more in-depth on the strategic alliance life cycle process. It emerged from the interview that specific standards (circles) are required. These included legal requirements, contracts agreeing with financials, agreement on common business objectives, branding and intellectual properties created as a result of this strategic alliance. KI09 stated that they also have to look into the technical aspect. For example, when dealing with a bank providing mobile banking, one might have to sign an agreement to provide that service. The Bank will then take you to someone technical who will tell you what you need to configure in the mobile system and what will work. The Bank also has a technical team that will work with our technical team to ensure that the system is integrated and completed. The integration will then be tested. The testing is either technical to say that the technical evaluation agrees or testing as a customer, so once those two parts agree, the product is ready. The product has to be taken to the market; then, the bank will invest in a campaign to

introduce the new product using their marketing plan to influence their customers on our part. Once this is done, you then go into managing the product, and when it is mature, you have to ensure that people know how to use it. This shows that managing and leading a strategic alliance is a thoughtful process and requires dedicated and assigned personnel.

Another key informant involved in the international gate (KI02) elaborated on the process (QLB9) of cycles in strategic alliance and affirmed that there are some standing cycle activities that their alliances follow, as shown in Text Box 4.6:

Text Box 4. 7: key factors contributing to success in a strategic alliance

*Typically these alliances begins from a point of interest, and through these expression of interest inquiries are made followed by arrangements for structured meetings, and then the ideas are discussed. If we are in agreement with the terms we draw up the service agreement; and before any information is exchanged, you want to sign a non-disclosure agreement between the parties, thereafter you exchange some information before an agreement is put in place, and after that agreement you begin to execute what has been agreed upon in the agreement… (**KI02 describing the processes of a strategi alliance life cycle).***

4.4.3 Critical and standard activities performed by a partner in an alliance

When QLB10 was asked KI07, a chief technical officer from the ISP responded and emphasised the importance of an organisation engaged in systematically designing their alliances and paying attention to activities that give rise to cost to ensure effective cost management. KI07 replied that in terms of critical activities, the owner of a product or project has several things to check on whether the project is going as per plan, whether it is making us money or are the customers using it, and if there are issues how to help it to perform better. The checking involves legal issues, how these issues are communicated to the people, and when the contract expires, how does one renew the contract; if this system is not performing, one needs to shut it down and owe to legal implications of the contract.

4.4.4 Alliance system of capturing business activities

During interviews, the key informants further stated that management systems in strategic alliances' included project management systems, signing of Service Level Agreements (SLAs), and keeping job scorecards. The details are amplified in Text Box 4.8.

Text Box 4. 8: Management system in a strategic alliance

*When it comes to systems that are used to track progress on the strategic alliance partnership that we have, obviously have projects management systems were we track a project and make sure that we know at every stage where the project is at. We also make sure that the project is recognized…(**KI05 describing Project management systems used to track progress).***

*For the service sectors, we first develop service level agreement between ourselves and our strategic partners. We then ensure that were the delivery of services is concerned, we have clear benchmarks in terms of the levels of service that are going to be considered acceptable, and if that level of service falls below that acceptable threshold there are also penalties that kick in, and that acts as a deterrent on the part of the service provide to make sure that they always perform at least up to the minimum agreed upon standard; When it comes to tracking progress in a strategic alliance, we are guided by service level agreements or service charters that might be appropriately…. (**KI06 describing service system used to track progress).***

We use two mechanisms to track progress in our strategic alliance and these includes score cards and Calculations…"
(KI08 describing the use of score cards and calculation in tracking progress in alliance).

4.4.5 Summary issues and emerging themes of standard activities that give rise to costs

Both findings from the quantitative and qualitative data resulted in the following summary of issues and emerging patterns/themes:

a) Strategic alliance cycles.
b) Defined systems for capturing business activities.

c) Quantify and cost non-financial activities.

d) Essential strategic alliance cost information must be available.

e) Partnership cost drivers.

f) Organisational-wide or enterprise reporting.

The emerging issues and patterns from 4.4 can be summarised as shown in Figure 4.12.

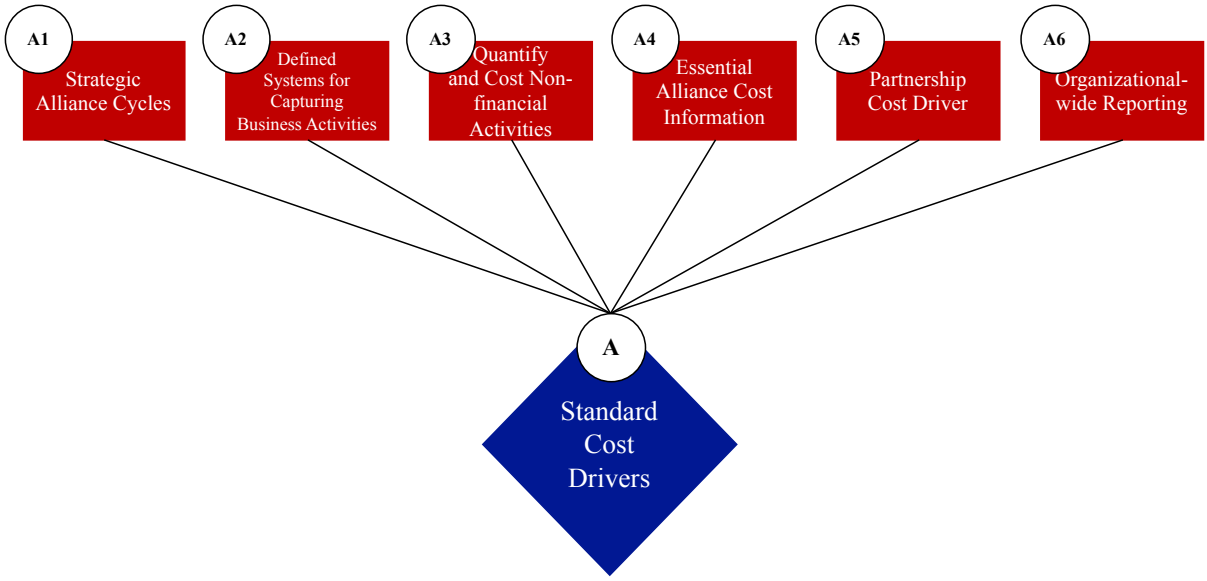

Figure 4. 12: Conceptualisation of standard activities that give rise to costs in SAs

4.5 Quantitative Findings for Approaches for Cost Measurement

This section presents quantitative results related to the second Research Question (RQ02). **RQ02** asked; *How should costs in strategic alliances be measured?* Moreover, proposition two **(P_2)** stated: *There are no specific approaches required to measure costs in strategic alliances.* The questionnaires had 12 questions from QNB7-B18.

4.5.1 Types of cost systems and their effectiveness in strategic alliances

Responses from questions QNB07 to QNB09 are presented in Figure 4.13:

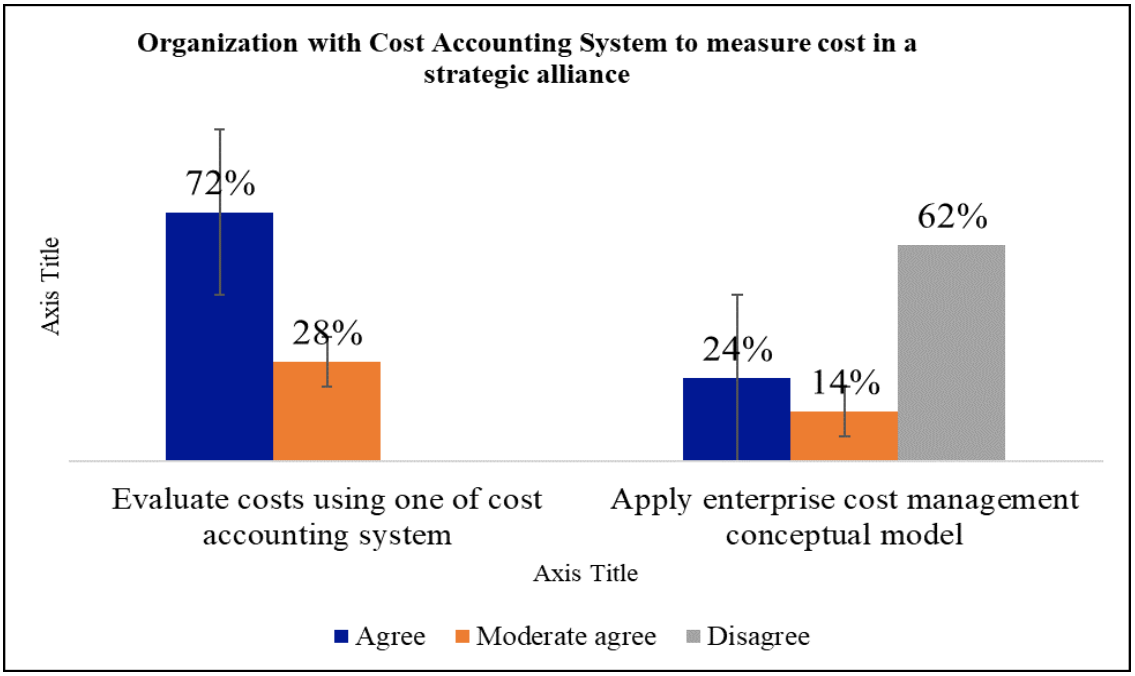

Figure 4. 13: Organisation with cost accounting systems

As seen from the results in Figure 4.13, close to three-quarters (n=38) (72%) of the respondents indicated that they evaluate costs using at least one of the cost accounting systems. Asked if any organisations were using a comprehensive enterprise cost management approach for managing costs, close to two-thirds (62%) (n=33) disagreed, citing the unavailability of the same. The findings here must be read in conjunction with Figure 4.14 on satisfaction with a current cost accounting system.

As shown in the findings for QNB09, close to three quarters (72%) (n=38) were unsatisfied with how their organisations captured cost information in strategic alliances. This could be attributed to the absence of a comprehensive enterprise cost management approach for strategic alliance costs, as indicated in QNB8. Among the key challenges that are associated with incorporating a cost accounting system in strategic alliances were:

i. Accessibility to cost management systems;
ii. hardware challenges; and
iii. lack of systems to capture non-financial costs.

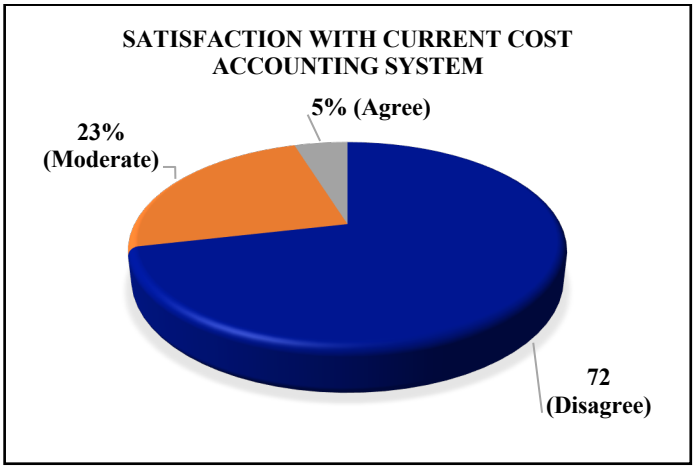

Figure 4. 14: Satisfaction with current cost accounting systems

It follows that a comprehensive cost accounting system in a strategic alliance arrangement is critical to effective cost management, which would contribute to the success of a strategic alliance.

The study also endeavoured to examine question QNB10 on categorising costs associated with strategic alliances. Respondents grouped costs as fixed costs and non-fixed (variable) costs: Variable costs vary based on the amount of output, while fixed costs are the same regardless of the level of production output. The respondents gave examples such as these shown in Table 4.4:

Table 4. 4: Type of cost in strategic alliance

S/N	Fixed Costs	Variable Costs
1	Administrative cost	Direct materials and hardware cost
2	Procurement cost	Direct Labour cost
3	Recruiting Staff cost	Direct operation cost
4	Legal Registration cost	Commissions
5	Transportation and marketing costs	Installation cost
5	Equipment cost	Telephone and Internet cost

Further discussions with the key informants revealed that as partners enter into strategic alliances, they would have their own cost structures, and it is expected that each partner would bear its own costs. In other cases, partners would agree on the cost-sharing proportion. The cost-sharing would depend on the work and tasks assigned to each partner.

Therefore, categorising different strategic alliance costs enhances the effective management of costs in strategic alliances and leads to a successful implementation of strategic alliance costs.

Building on the questions in QNB09, other responses relating to standard costs in strategic alliances are presented in Figure 4.15.

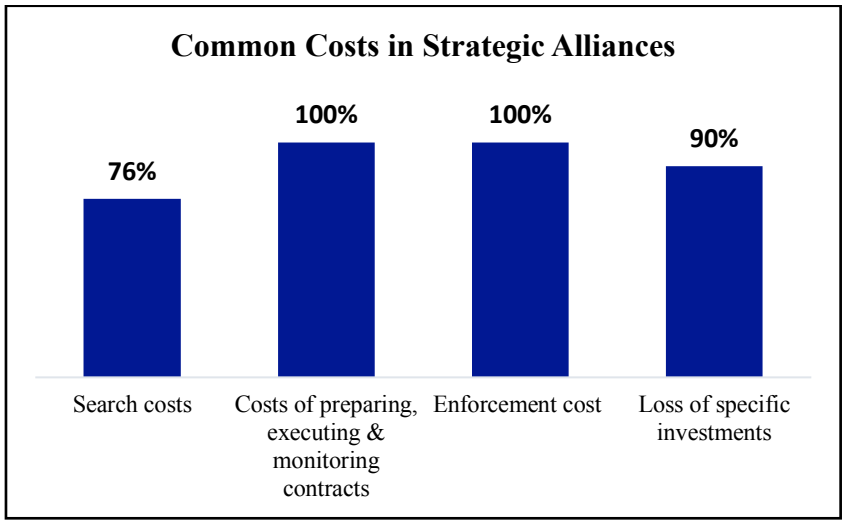

Figure 4. 15: Common cost in strategic alliances

Respondents were asked about the standard costs that exist in strategic alliances. Figure 4.15 is an illustration of the typical costs in strategic alliances. Over two-thirds (76%) of the respondents (n=40) stated that Search costs are among the common strategic alliances' costs. Regarding costs of preparing, executing & monitoring contracts, all the 53 respondents (100%) agreed that this was a typical cost in managing strategic alliances. This response was the same for the cost of enforcement, where all 53 respondents (100%) stated that they are standard alliance costs, while (90%) of the respondents said that the cost of loss of specific investments was also standard in the management of strategic alliances.

Therefore, identifying common strategic alliance costs enhances the effective management of costs in strategic alliances and leads to the successful implementation of strategic alliance costs.

Question QNB11 provided responses related to the costing systems widely used by organisations engaged in strategic alliances. Two costing systems, Traditional Accounting System (TAS) and

Activity Based Costing (ABC) systems, were scored for their application in strategic alliances. Figures 4.16 and 4.17 present the findings concerning the system application in managing costs.

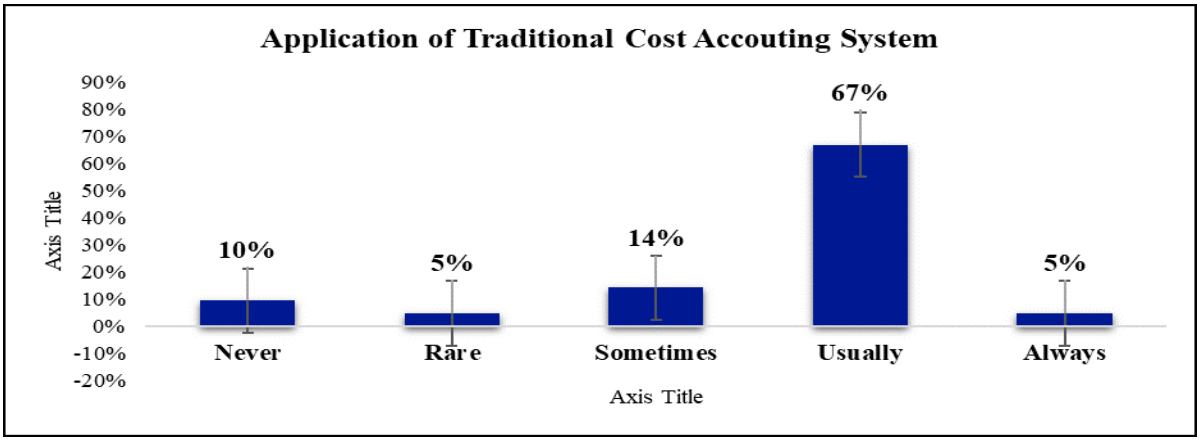

Figure 4. 16: Application of traditional cost accounting system

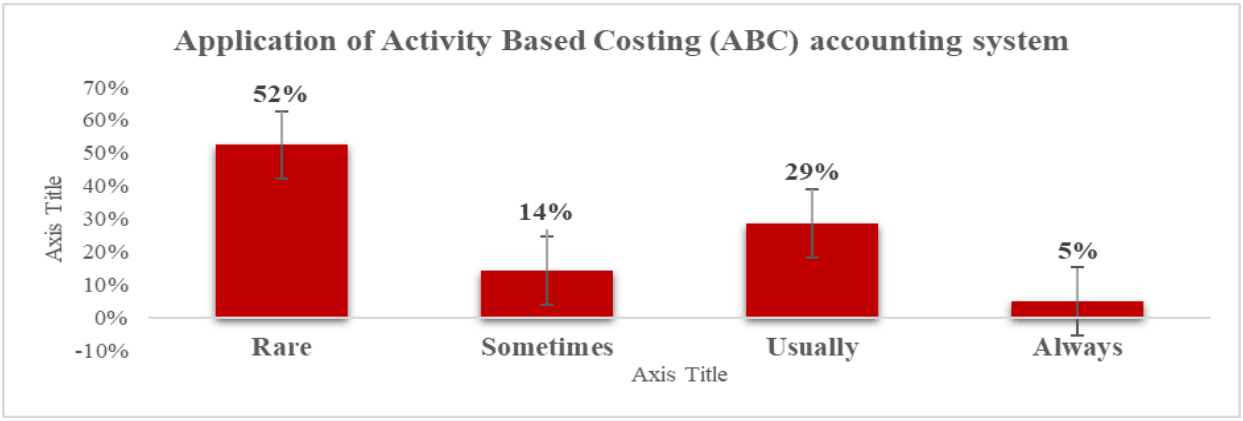

Figure 4. 17: Application of Activity Based Costing (ABC) accounting system

As seen from the findings in Figure 4.16, most (67%) of the respondents usually used the traditional cost accounting system in strategic alliances. In contrast, Activity Based Costing (ABC) system is rarely used by the same organisations, as shown in Figure 4.17, with the majority (52%) saying they rarely do so. Only a paltry 5% stated that they always use the ABC, and about a third (29%) stated they usually use ABC in alliance cost management.

The same respondents were asked whether they used the traditional cost or ABC systems. The results revealed that two-thirds of the respondents usually and sometimes apply both ABC and traditional cost accounting systems in their cost management of strategic alliances. The results are shown in Figure 4.18:

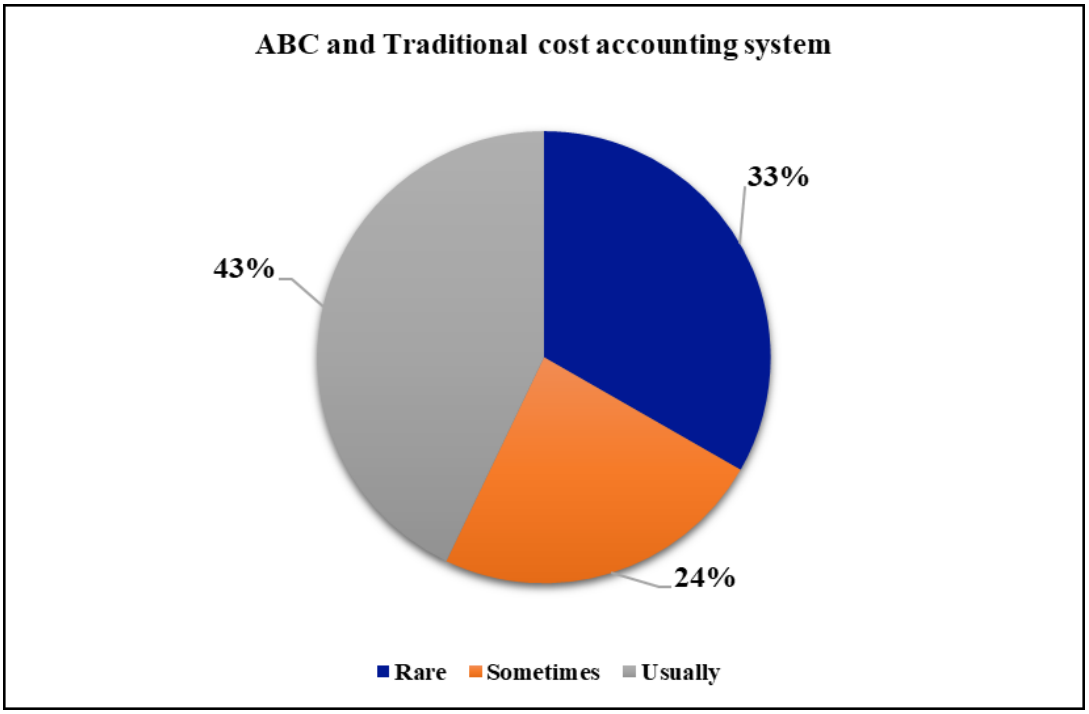

Figure 4. 18: ABC and Traditional Cost Accounting (TCA) system

As much as most responded that they used both systems, the findings in QNB11 showed that the traditional costing accounting system is used more than the ABC system. The response in QNB09 confirms this assertion that close to three quarters (72%) (n=38) were not satisfied with the current method of their organisation's capture cost information in strategic alliances. This was attributed to the absence of a comprehensive enterprise cost management approach for managing strategic alliance costs, as indicated in findings reflected in QNB8.

4.5.2 Financial and non-financial cost measurement

Responses from question QNB12 relate to the costing measurement approaches that capture either financial or non-financial costs. The findings are shown in Figure 4.19.

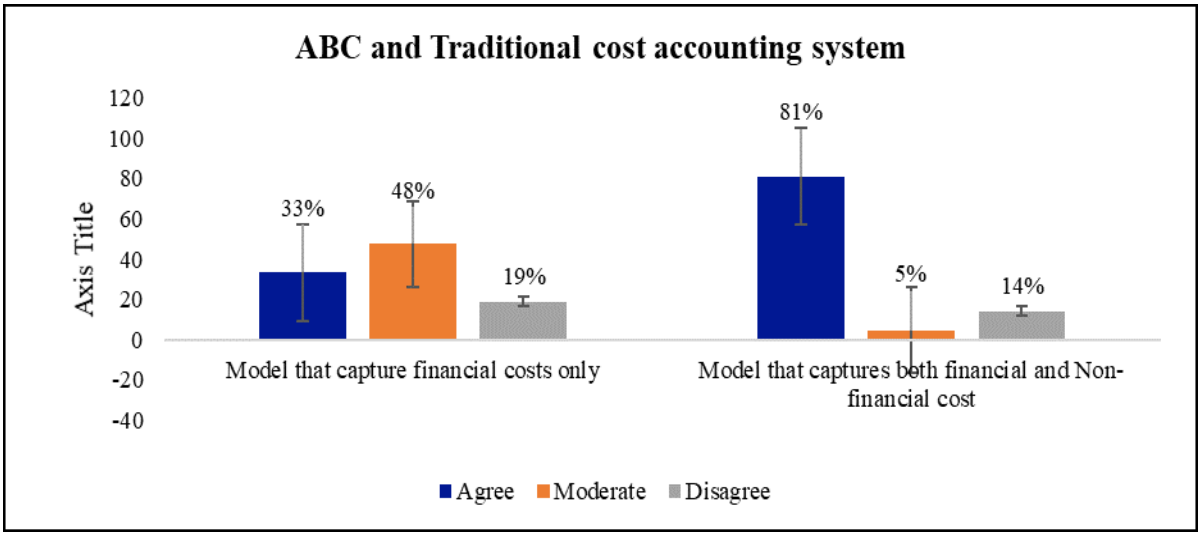

Figure 4. 19: Costing measurement approaches for financial or non-financial cost

As shown in Figure 4.19, a fifth of the respondents disagreed with a system that only captures financial costs in strategic alliances, while almost half of them (48%) moderately agreed that such a system would be ideal. However, when asked about a model that captures both financial and non-financial costs, all 42 respondents from the questionnaires (100%) responded with affirmation that such a model would be ideal for managing costs in a strategic alliance.

Therefore, to enhance effective cost management of a strategic alliance, an ideal model should capture both financial and non-financial costs in the management of strategic alliances

4.5.3 Strategic alliance staff Level of Effort (LoE)

Responses from questions QNB13 related to the staff level of effort they spend on strategic alliances. The respondents were asked to state how much effort the alliance team members devote to the strategic alliance. It merged that specific staff is assigned the level of effort to each strategic alliance in all collaboration. As shown in Figure 4.20, a total of 30 respondents representing 57%, responded that staff spent a considerate effort on strategic alliance assignments.

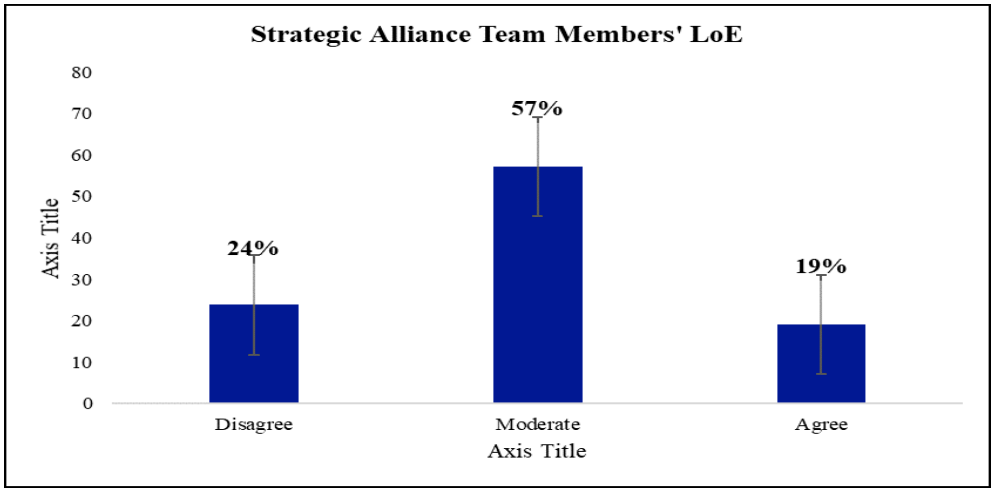

Figure 4. 20: Strategic alliance staff Level of Effort (LoE)

This finding agreed with Section A4, where labour and plant timesheet was essential information requirements for effective alliance cost management.

Staff costs are essential to cost that must be clearly reflected in the management of strategic alliances to enhance effective cost management.

4.5.4 Strategic Alliance Performance Metrics

Questions QNB14 focused on three key performance metrics that are probable for effective strategic alliance management. These include financial performance, time to market, and product innovation measurements, as shown in Figure 4.21 and followed by the analysis:

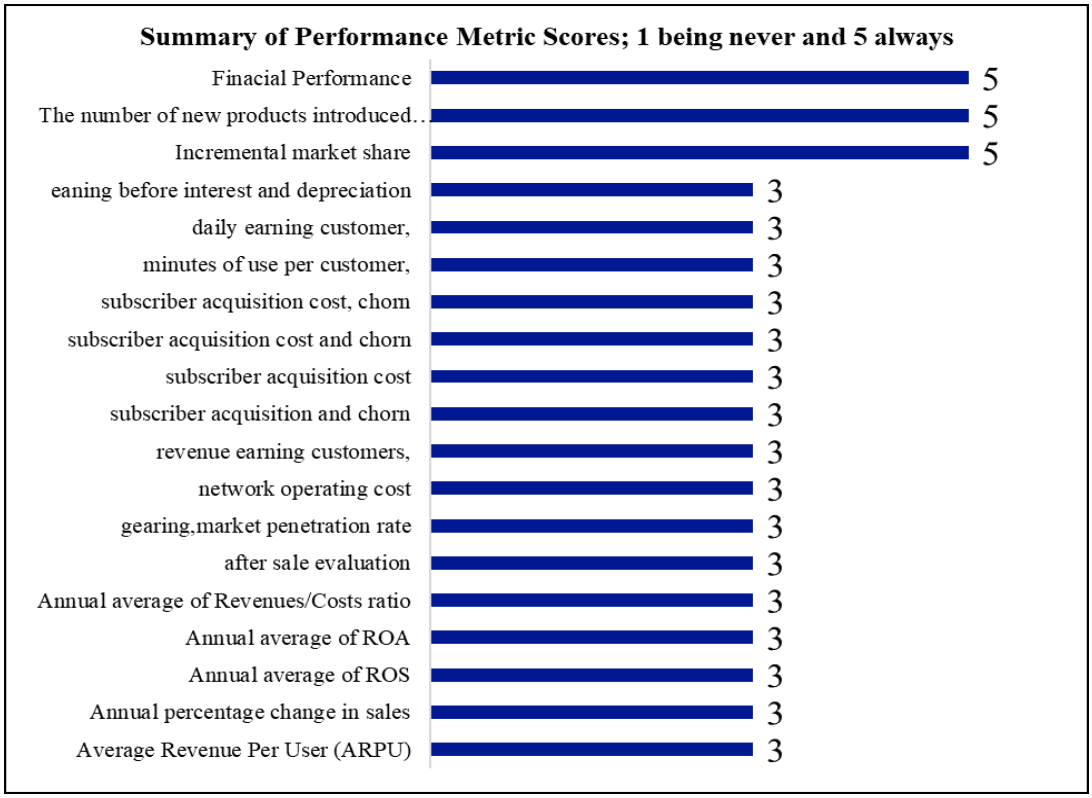

Figure 4. 21: Summary of metric performance scores

As shown in Figure 4.21 and Table 4.5, several financial performance metrics are standard in the performance management of strategic alliances. It emerged that most enterprises (66%) use the Average Revenue Per User (ARPU) measure in evaluating financial performance. All the enterprises sampled indicated that they use Annual percentage change in sales as part of their financial metrics. Another 91% of the enterprises stated that they use the Annual average of Return on Sales (ROS), and 96% use the Annual average of Return On Assets (ROA) as part of their financial metrics. Over two-thirds of the enterprise indicated that they use the annual average of Revenues/Costs ratio to evaluate their cost effectiveness concerning the revenue generated.

Other financial metrics that emerged as being common in the performance management of strategic alliances were after-sale evaluation (5%), market penetration rate (19%), network operating cost (10%), revenue earning customers (12%), subscriber acquisition cost (5%), minutes of use per customer (19%), daily earning customer, earnings before interest and depreciation (30%). Table 4.6 is the summary of the respondents' feedback.

Table 4. 5: Summary of performance metrics

Details	%	(n) estimates
Average Revenue Per User (ARPU)		
Sometimes	33	14
Usually	43	18
Always	24	10
Total	**100**	**42**
Annual percentage change in sales		
Always	100	42
Total	**100**	**42**
Annual average of ROS		
Usually	10	4
Always	91	38
Total	**100**	**42**
Annual average of ROA		
Usually	5	2
Always	95	40
Total	**100**	**21**
Annual average of Revenues/Costs ratio		
Usually	19	8
Always	81	34
Total	**100**	**42**
Incremental market share		
Rare	19	8
Sometimes	5	2
Usually	38	16
Always	38	16
Total	**100**	**42**
The number of new products introduced in a market		
Rare	5	2
Sometimes	14	6
Usually	71	30
Always	10	4
Total	**100**	**42**

The study has shown that several financial performance metrics are used in the telecom sector. However, the following are the common financial performance metrics that are critical in strategic alliance management:

i. Average Revenue Per User (ARPU).
ii. Annual average of Return On Sales (ROS).
iii. Annual average of Return On Assets (ROA).
iv. Market penetration rate.
v. Network operating cost.
vi. Subscriber acquisition cost.
vii. Minutes of use per customer.
viii. Earnings before interest and depreciation.

Besides the financial performance metrics, responses for QNB14 and QNB15 have also shown that other non-financial performance metrics are standard in the telecom sector. The findings indicated that all the enterprises used incremental market share metrics, but the frequency was varied. Three-thirds (76%) indicated that they used this measure quite often, and a fifth (19%) rarely use this, while the rest (5%) use it sometimes.

Another non-financial performance metric that emerged from the findings is the number of new products introduced in a market where all enterprises stated that they use it, but the extent of utilisation varied as in the incremental market share metric. About a tenth (10%) said they always use this measure, whereas close to three-quarters (72%) said they usually use this metric. The rest, 14% and 5%, indicated that they use it sometimes and rarely, respectively. In linking question QNB14 to QNB16, the respondents were asked if they had introduced any new products due to being in a strategic alliance. Over three-quarters of 33 respondents (76%) of the enterprises answered in the affirmative, as per Figure 4.22.

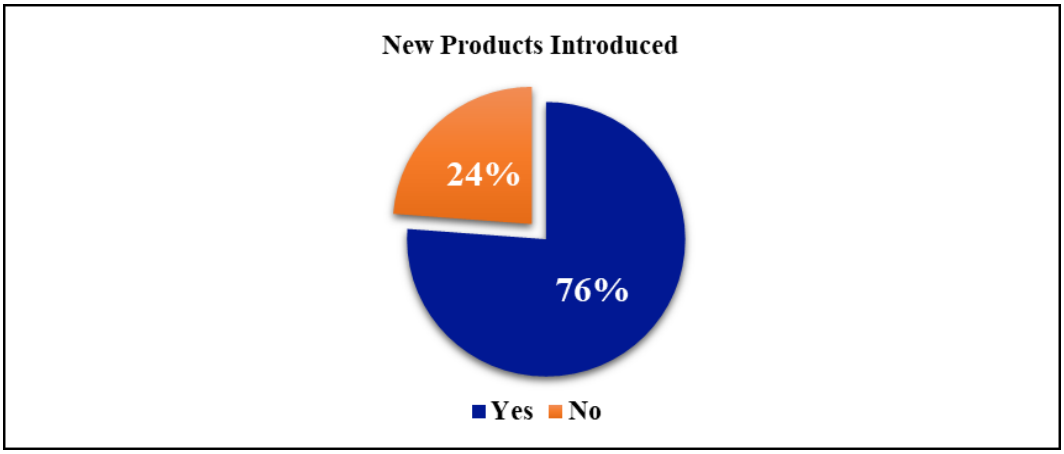

Figure 4. 22: New products introduced

When asked to state the number produced in QNB17-B18, all the respondents listed at least six new products that were introduced while in strategic alliances, as shown in Figure 4.23:

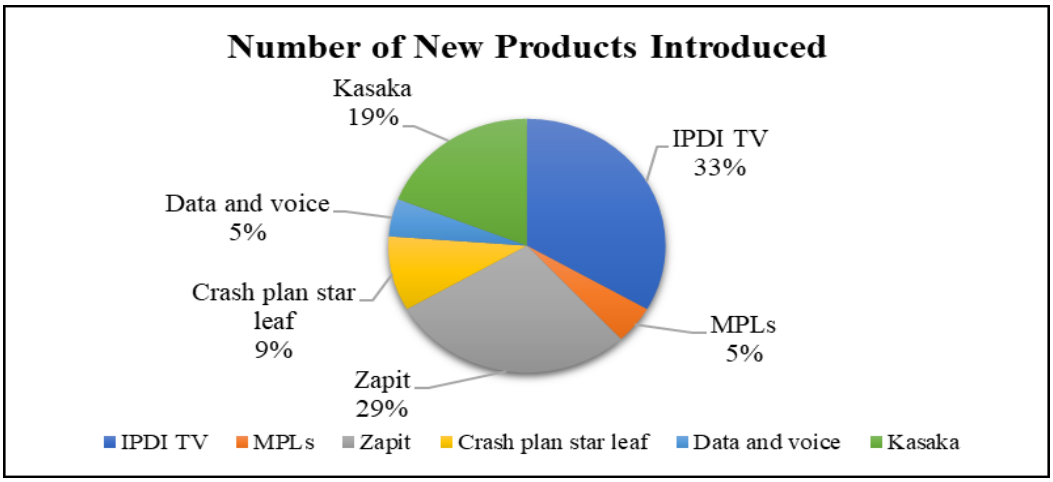

Figure 4. 23: Number of new products introduced

Therefore, to enhance effective cost management and the success of a strategic alliance, performance metrics are an essential component of the model for managing costs in strategic alliances.

4.6 Qualitative Findings for Approaches for Cost Measurement

This section presents qualitative results related to the second Research Question (RQ02). **RQ02** asked; *How should costs in strategic alliances be measured?* Moreover, proposition two **(P_2)**

stated: *There are no specific approaches required to measure costs in strategic alliances.* The interviews asked five questions from QLC12-C16.

4.6.1 Types of cost in strategic alliances

The study also examined questions QLC12 on categorising costs associated with strategic alliances. The key informants indicated that there was a lot of cost-sharing among partners. The combined costs of putting together a strategic alliance had resulted in an arrangement where the combined cost was less than if each of the partners was to get into the businesses individually, thus synergising. The verbatim responses are shown in Text Box 4.9 and 4.10:

Text Box 4. 9: Key Informant describing administrative cost as cost drivers alliances

As we enter into these strategic alliances, obviously as partners we will have our own inherit costs and it would be expected that each of us will bear their own costs. In terms of the actual cost that we encounter, obviously in the sense of the supply arrangement there are cost associated with the Time (man hour) that is expended onto that project and also cost relating to various resources that we use in terms of transportation. Sometimes these alliances have been formed with parties who are not in the same country, so to structure these alliances sometimes you have to travel out of the country, and also of course the direct cost of procurement in that alliance…. ***(KI07 with cost at strategic alliance formation stage).***

Cost are also at distribution level. Mostly the cost at distribution level is mainly administrative in nature, but of course it is expected because it is a strategic alliance. The combined cost of putting together a strategic alliance will result in an arrangement were the combined cost is less than if each of us was to get into our businesses individually, so there are synergizes specifically to serve that purpose… ***(KI08 with cost at product distribution.***

Other key informants, such as KI09, indicated that sometimes, it takes time to conclude the negotiation of a strategic alliance. Initially, as firms engage in alliances, both parties are not sure if this is the partner they should be working with because there are not clear; therefore, apart from having a cost, it also takes time because you also want to make sure that you have structured an

arrangement that is going to be mutually beneficial, so each of you looks out for the benefits presented. Thus, it does take time for negotiations and for both parties to reach a win-win situation.

Text Box 4. 10: describing procurement costs as cost drivers in strategic alliance

We also have other cost such as, 1) to replace any damage equipment, cost of installation, 2) obviously we have to supply the hardware they have to go use for the installations 3) cost of marketing a product 4) cost of revenue collections, not much it's just man hour. Travel cost is one of the drivers, then there is hardware. I think by and large those two are the major drivers of cost… ***(KI10 on drivers of cost).***

"the major cost drivers are hardware costs, licences and personnel costs. so you might need a team of people to just manage the product, you might also need marketing support, and you might need once in while may be legal support or a person who understand regulatory issues of what to do when you want to get a licence and the like ***(KI11 on key drivers of cost in strategic alliance).***

It follows, therefore, that the Categorisation of different types of strategic alliance costs enhances the effective management of costs in strategic alliance and leads to a successful implementation of strategic alliance costs.

Expanding on the questions in QLC12 and further responses on probing relating to common costs in strategic alliances, it emerged that some of these activities drive costs daily in production and service delivery. Key informant 11 added that if the product has been used, someone has to pay for the hardware used while the other pays for the business and product licence and payment for the people working (cost of labour) in these departments. This is whether it is technical or commercial; in a nutshell, the cost drivers are variable and fixed.

Therefore, identifying common strategic alliance costs enhances the effective management of costs in strategic alliances and leads to a successful implementation of strategic alliance costs.

4.6.2 Cost System in strategic alliances

From the responses to question QLC13, the key informants stated that they usually use partners' Standard Accounting Packages, and the accountants play a critical role in measuring and controlling the associated strategic alliance costs. It was observed that most (87%) of the key informants use and deploy standard accounting systems of business, such as Oracle-based systems and Enterprises Resources Planning Systems (ERP). These findings collaborated with the results of the interviews questions on QLC12 and QLC13, whose responses are in Text Box 4.11:

Text Box 4. 11: describing some of the types of cost accounting systems used

We have multiple systems that are used to track specific cost in a strategic alliance. These systems track cost on procurement, cost on payment, and cost on project management. Applicability of these cost accounting system for capturing these cost are mostly by the inputs that are done by the financial (Accounting) department verses what is received as invoices as payment … ***(KI03 whose company accounts for input supplies).***

We normally use our Standard Accounting Packages, and the accountants do play a critical role in terms of measuring these cost and controlling these cost. We use the standard accounting system of business or deploying using the VISION Accounting System…. ***(KI06 using Standard Accounting Packages)***

We use the system called Emerald System. We bought this system off the shelf, but it was customized to meet our requirements. With the Emerald system, we are able to capture costs, prepare reports with our partners… ***(KI08 using Emerald System to capture cost).***

In the case of a firm that was in Internet service provision across the country, it further emerged from the informant that the cost accounting system their organisation was using for capturing cost in strategic alliances was the ORACLE-based system and the Enterprise Resources Planning System (ERPS). The ERPS analysis is based on the cost of sales. In addition, they also have in their reporting system guidelines that look specifically at all aspects of capturing everyday costs through management meetings. Through these meetings, management looked at a particular monthly cost of sale that is tracked; they were able to analyse costs and their direct impact on our

business's health. Some of the questions asked in partnership meetings were: Are our sales costs very high or coming down?

In some cases, four (04) key informants in QLC13 and QLC14 stated that they had enterprise resource planning systems that capture both financial and non-financial information. The responses in this regard are shown in Text box 4.12 for two key informants

Text Box 4. 12: KIIs describing effectiveness of cost accounting systems in measuring cost

*To some extent, we are able to measure financial cost, but we should also be looking at how to measure non-financial cost and see if they will be a better use of time and how you get more out of your resources….. (**KI01 on the effectiveness of cost accounting system)***

*Yes our system is effective and it helps us realize our objectives as is the case with all systems. We seek to continue improving this system by finding better ways of doing things, especially in this sector that is really a dynamic sector. It is also important to note that this system cannot be counted as a concrete system; As a team we are always working to be innovative and think of better ways of doing things all the time…(**KI03 using emerald cost accounting system)***

Using both ABC and traditional cost accounting systems is desirable for effective cost management in strategic alliances.

4.6.3 Financial and non-financial cost measurement

The results of the questionnaires agree with the interview responses in QLC15 that a system that captures both financial and non-financial costs would be an ideal model to manage costs in a strategic alliance. These results are presented in Text Box 4.13:

Text Box 4. 13: Factors to improve effectiveness in strategic alliance

Yes, there are areas that needs improvement like in quantification of non-financial costs. At the moment, what we are doing is basically guess work, we therefore need a system/software to be developed which measures all the major costs involved because at the moment deliverable are not really captured…(***KI05 on areas to improve effectiveness of capturing non-financial costs).***

There is also need to have tools in place to capture cost at different level. You can also get things done without necessarily using an accounting system; you can get things done using MS-excel to capture what you could with a million dollar system, and basically that's how most businesses today have bridged the gap in terms of resources and time. Forward thinking should be encouraged to improve the effectiveness of cost measure system and collaborative partnership (e.g. Apple, when working with them and if they have a system that is able to capture how their employee is able to clock-in or clock-out, you ask them as a partner if you can also use that system there are using); There are also a lot of systems that are developed in terms of technology, approaches, methodology that you can look at and if you are developing a project you can use these available system to enhance cost measures in your project(***KI06 on how to improve effectiveness of cost accounting system)***"

One key informant suggested that the system of capturing costs in the strategic alliance could be improved by linking strategic partners' systems based on the partners' signed agreement. This was based on the realisation that there could also be inherited risk and so they can try to identify that risk, and there is a team tasked to look at the risk register and compare with the dynamics in the market environment; Further, they suggested that when you identify the risk within an existing contract or agreement, one should try to array the fear by actually engaging with partners to ensure the following:

i. that matter has been identified as a potential risk;
ii. and that you open up that sections of the agreement;
iii. bargain and if it is feasible to change within the existing terms of the contract; and

iv. if it is not, we will wait until the expiration of the current terms.

Text Box 4. 14: Key Informants describing challenges of capturing costs accurately

The main challenges associated with capturing cost in strategic alliance includes, transportation and availability of hardware to track cost at different stages of our operation: the hardware we used usual comes from Lusaka, we do not have many outlet out there where someone can simply go to get hardware. We always have to buy them from Lusaka, and sometime you have to import from outside the country… ***KI01 with challenges in capturing cost at different levels in their operations)***

I also feel, we should not only focus just on financial related cost, but we also need to look at non-financial related cost because the way we use non-financial cost can either have a positive or negative impact on the business, I thinks it's good to strike a balance between the two … ***KI02 with challenges in capturing non-financial cost)***

On further probing, key informant number 2 (KI02) indicated that their current system for employees clocking in and out does not capture the exact time the employee was working once s/he clocks in. It just captures clocking-in and clock-out, and the person-hour is calculated. You also have employees that are not 8 hours on the job. Some of them the 8 hours are stopping for coffee, others to chat with friends or go online just to refresh their minds. So, one cannot account for all these things and how time is spent and some of those costs will drive something forward or bring it down. She further added that if a person is not investing their time in a job that on its own is a drawback for the company, but if a person is investing his time going out to do something that is helping to meet the company's objective, then that will be beneficial to the company. However, we do not necessarily have systems to capture such activities to measure the company's return on investment or benefit.

It follows, therefore, that to enhance effective cost management of a strategic alliance, an ideal system should capture both financial and non-financial costs in the management of alliances.

QLC16 asked what barriers and challenges partners encountered in trying to incorporate all costs related to strategic alliances. Among the key challenges highlighted by most key informants that are associated with incorporating a cost accounting system in strategic alliances were:

i. Accessibility to cost management systems;
ii. Hardware challenges; and
iii. Lack of systems to capture non-financial costs.

These emerging themes are deduced from Text box 4.12 to 4.14:

It follows that a comprehensive cost accounting system in a strategic alliance arrangement is critical to effective cost management, which would contribute to the success of a strategic alliance.

Questions in QL12 to QLC16 were summed in one question: How should costs in strategic alliances be measured? Costs in the strategic alliance should be measured;

i. Based on the actual delivery of services or equipment;
ii. On a variable basis not fixed from an initial contract signing or agreement;
iii. Customer basis and the maintenance and support requirements;
iv. On value derived which should always excel cost; and
v. At all levels, a well-arranged process and system capture cost.

4.6.4 Convergence summary of emerging issues of approaches for measuring costs

Both findings from the quantitative and qualitative data resulted in the following summary of issues and emerging patterns/themes:

i. Cost accounting system.
ii. Costing systems.
iii. Identification of common costs.
iv. A financial and non-financial cost measurement model.
v. Staff level of efforts (LoE).
vi. Performance metrics.

It follows that to enhance effective cost management and the success of a strategic alliance, performance metrics are an essential component of any model for managing costs in strategic alliances. The resultant of all linkages of emerged patterns are diagrammatically represented in Figure 4.24:

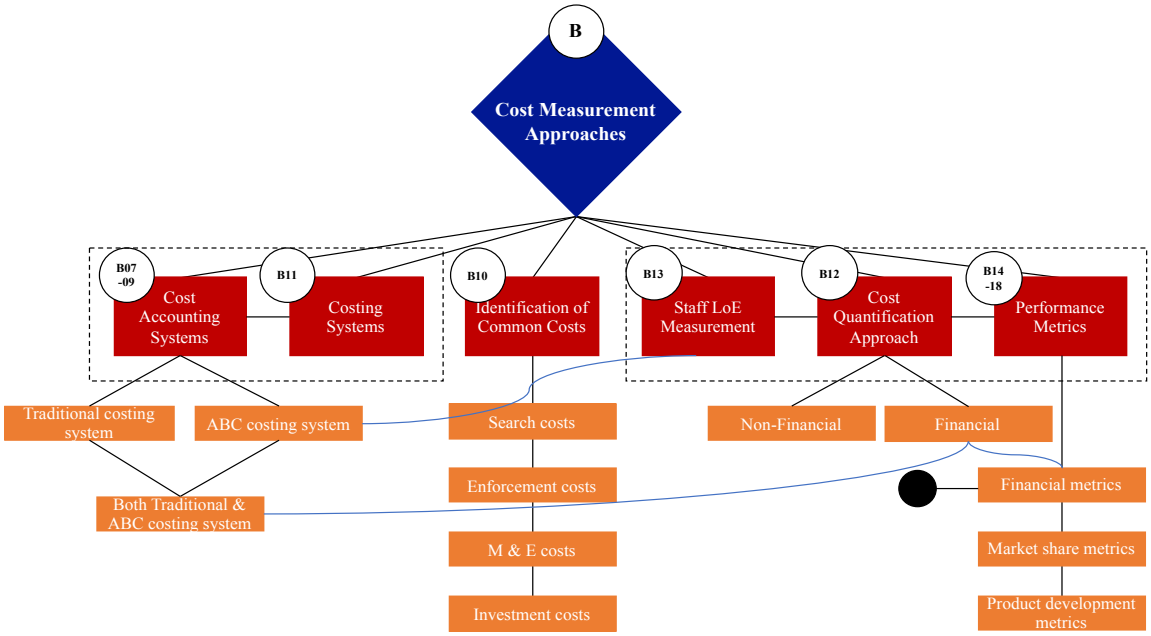

Figure 4. 24: Cost approaches in strategic alliance (unmerged)

When the themes and patterns are linked for commonality, the result is in Figure 4.25.

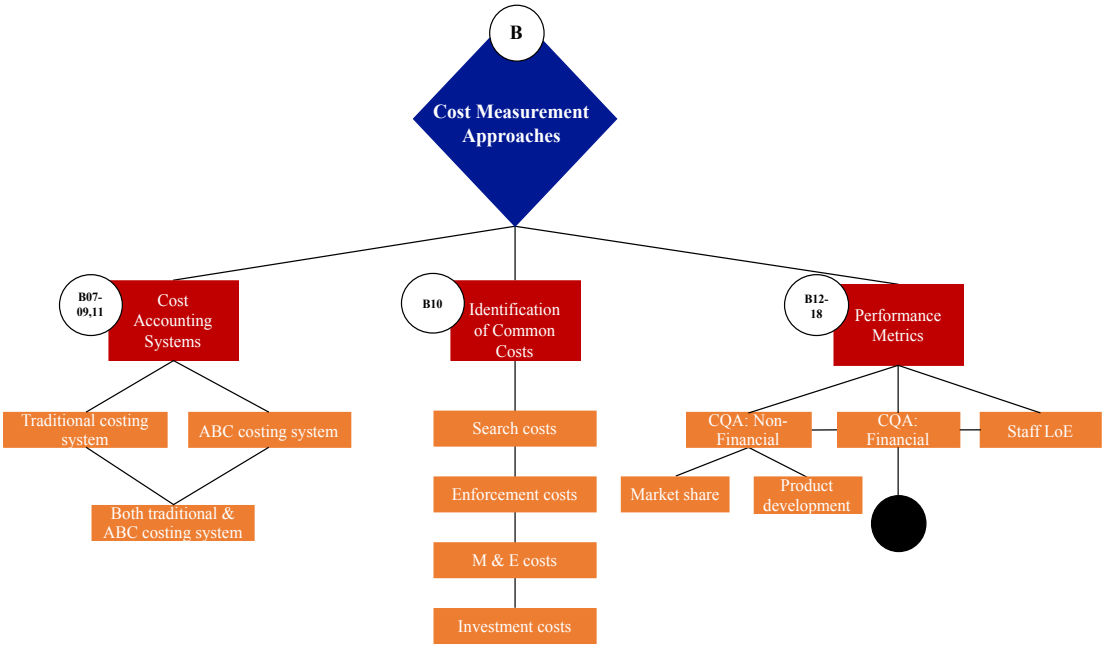

Figure 4. 25: Cost approaches in strategic alliance (merged)

4.7 Quantitative Findings for Practical Application to Real Life Strategic Alliance

In this section, quantitative results are presented that relate to the third Research Question (RQ03). **RQ03** asked; *What is the practical application of an enterprise cost conceptual model in a real-life project?* Moreover, the third proposition **(P_3)** stated: *The lesser application of the appropriate enterprise cost conceptual model in a real-life alliance project, the lower its corporate performance.* The questionnaires had seven questions from QNC19-C25.

4.7.1 Benefits of using enterprise cost management approaches

Responses from question QNC19 related to benefits would accrue for enterprises that use the cost management conceptual model. The respondents were asked to list the anticipated benefits, and these are shown in Table 4.6:

Table 4. 6: Benefits of enterprise cost management approaches (n=42).

Enterprises benefiting from using enterprise Cost Management Approaches			
Enterprise Benefits from	Moderate Benefit	High Benefit	Very High Benefits
Cost Sharing	14%	76%	10%
Reducing costs	5%	85%	10%
Shortening product	14%	76%	10%
Managing risks	10%	80%	10%

The study's findings show that having a comprehensive cost management conceptual model would benefit enterprises engaged in strategic alliances. When asked about the benefits of cost sharing, all respondents said they would enjoy sharing costs at different levels of satisfaction. Thirty-three respondents (76%) said they would enjoy high-cost sharing benefits, while a tenth stated they would enjoy very high benefits. The rest (14%) stated they would moderate enjoy the cost-sharing benefits.

When asked about the benefits of the cost reduction resulting from a strategic alliance, all respondents stated they would enjoy the benefits of reducing costs at different satisfaction levels. Nearly everyone (95%) stated that they would enjoy the cost reduction benefits, i.e. high benefits (85%) and very high benefits (10%), while a minority (5%) said they would moderately enjoy such benefits.

The responses to questions QNB19-3 were similar to QNB19-1. When asked about the benefits of shortening the product life cycle, all respondents stated that they would enjoy the benefits of shortening the product life cycle at different satisfaction levels if strategic alliances used a comprehensive cost management conceptual model. Over three-quarters (76%) said they would enjoy high benefits, while a tenth stated they would enjoy very high benefits. The rest (14%) said they would enjoy shortening the product life cycle benefits.

When enterprises were asked about the benefits of risk management, nearly everyone (95%) said they would see benefits, while 5% said they would have low benefits. Of the 95% included those that said they would enjoy high benefits (81%), the other (10%) said they would enjoy very high benefits, while (4%) would enjoy the moderate benefits of risk management if they used a comprehensive cost management conceptual model. The findings of this study on anticipated

benefits are in tandem with what some literature has recorded that is discussed later in this chapter. There would be a high likelihood of success if a strategic alliance had a comprehensive enterprise-wide cost management model.

4.7.2 Factors contributing to strategic alliance success and failure

Responses from question QNC20 related to factors that contribute to strategic alliance success. The respondent's findings for this question are presented in both Figure 4.26 and Table 4.7:

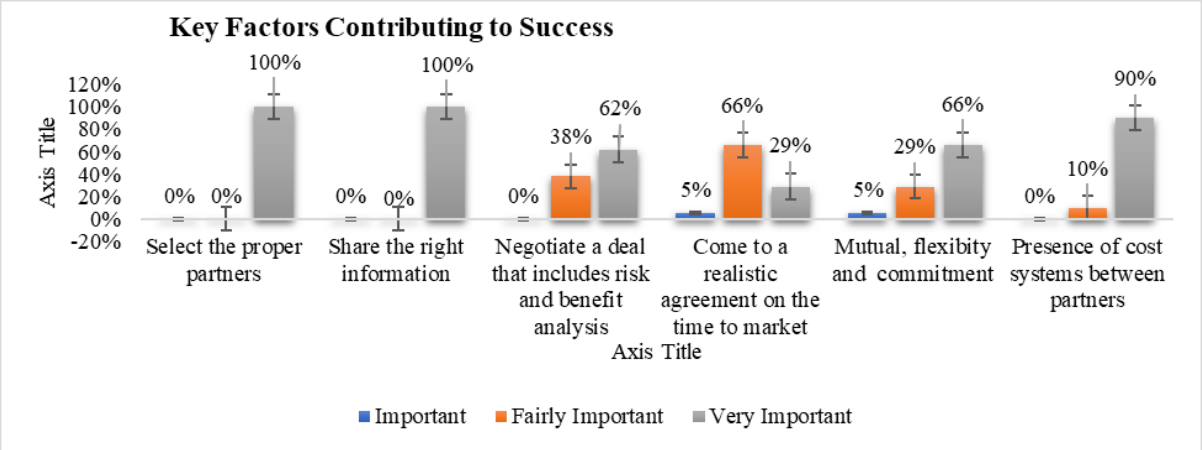

Figure 4. 26: Key factors contributing to the success

As shown in Figure 4.25 and Table 4.8, several factors contribute to the success of a strategic alliance.

Table 4. 7: Factors contributing to strategic alliance success

Some key factors contributing to strategic alliance success			
Factors contributing to Strategic Alliance Success	Fairly Important	Important	Very Important
Selecting the proper partners for the intended goals	-	-	100%
Sharing the right information	-	-	100%
Negotiate a deal that includes risk and benefit analysis	-	38%	62%
Coming up with a realistic agreement on the time to market	5%	67%	28%
Mutual, flexible commitment	5%	29%	66%
Presence of cost systems between partners	-	10%	90%

From the study, selecting the proper partners is very important, with all respondents agreeing. Sharing the correct information seemed very important, with all respondents saying so. The respondents gave different levels of importance to negotiating a deal that includes risk and benefit analysis, with the majority (62%) saying it was crucial and the rest saying it was pretty significant. Regarding coming to a realistic agreement on the time to market, mutual respect, flexibility and commitment, all the respondents agreed that these factors were important.

Of utmost importance is the finding that the presence of cost systems between partners played a vital role (90%) in the success of a strategic alliance arrangement, while 10% stated that they play a fairly significant role in the success of strategic alliances. This finding is consistent with results in other sections, such as QNA01 and QNB07 - QNB11. Other factors cited for contributing to the successful strategic alliance include transparency, information sharing, and costs related to a strategic partnership. Responses from question QNC21 related to factors that contribute to strategic alliance failure. The respondent's findings for this question are presented in Table 4.8:

Table 4. 8: Factors contributing to strategic alliance failure

Factors contributing to strategic alliance failure				
Factors contributing to Strategic Alliance Failure	**Slightly Critical**	**Fairly Critical**	**Critical**	**Very Critical**
Strategic disagreement is a critical factor	-	-	-	100%
The agency problem is a critical factor	-	48%	-	52%
Structure instability is a critical factor	-	43%	5%	52%
Cultural conflict is a critical factor	-	57%	-	43%
Communication obstacle is a critical factor	-	10%	10%	80%
Inter-firm competition is a critical factor	-	24%	52%	24%
Contract Incompleteness is a critical factor	-	62%	-	38%
Unfair resource exchange is a critical factor	-	66%	-	34%
Unfair benefits distribution is a critical factor	-	24%	-	76%
The absence of cost systems between partners is a critical factor	14%	5%	-	81%

As can be seen in question QNC21, three factors have emerged as critical to contributing to the failure of a strategic alliance. These include strategic disagreement (90% criticality), communication obstacle (81% criticality) and absence of cost systems between partners (81% criticality). The other factors that emerged from the table above are as follows:

(i) agency problem (52%);
(ii) structure instability (52%) critical;
(iii) culture conflict and organisational politics (43%) critical;
(iv) inter-firm competition (24%) critical;
(v) contract incompleteness (31%) critical;
(vi) unfair resource exchange (33%) critical; and
(vii) unfair benefits distribution (76%) is critical.

4.7.3 Financial performance of strategic alliances

Responses for question QNC22 related to the state of financial performance using the profitability measure of the respondents engaged in strategic alliances. The respondent's findings for this question are presented in Figures 4.27 and 4.28:

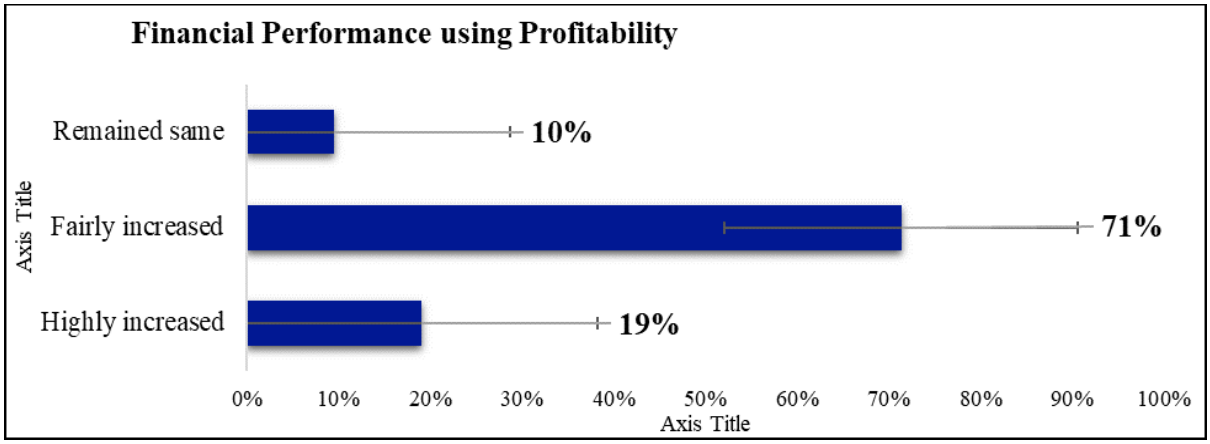

Figure 4. 27: Financial performance using profitability

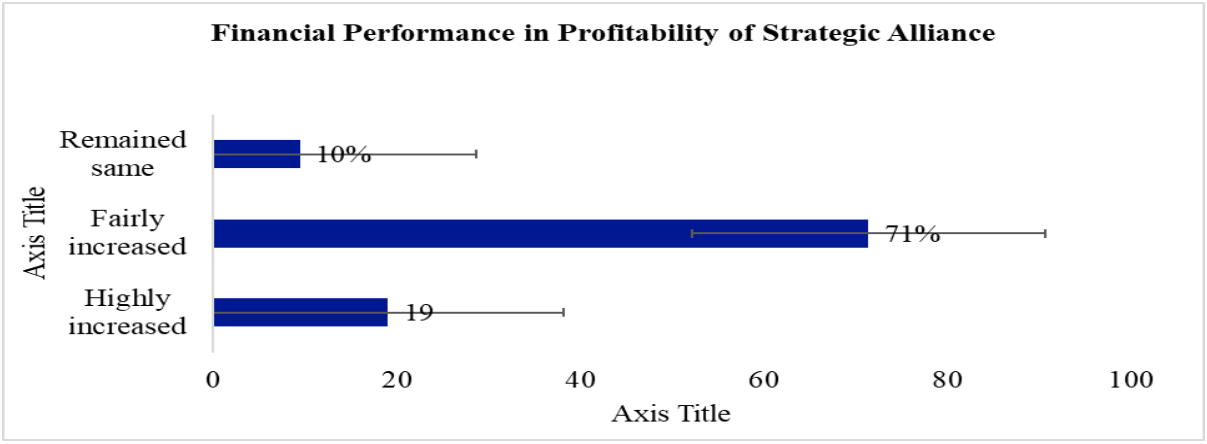

Figure 4. 28: Results of financial performance – profitability

Figure 4.28 shows that close to three-quarters (71%) of the enterprises had moderately increased profits, while close to 20% had high profits due to engaging in strategic alliances. Those who never had any improvement in profitability while engaged in the strategic alliance were about a tenth. Further, interrogations of the enterprise constituting 71% revealed that they all had a business system for capturing business and cost activities, costing accounting system, systematic activities schedules and produced essential information for managing strategic alliance and transparent performance metrics.

4.7.4 Containing and improving cost management in strategic alliances

Responses to question QNC23 related to the success rate of containing costs in strategic alliances of the respondents engaged in strategic alliances. The respondent's findings for this question are presented in Figure 4.29:

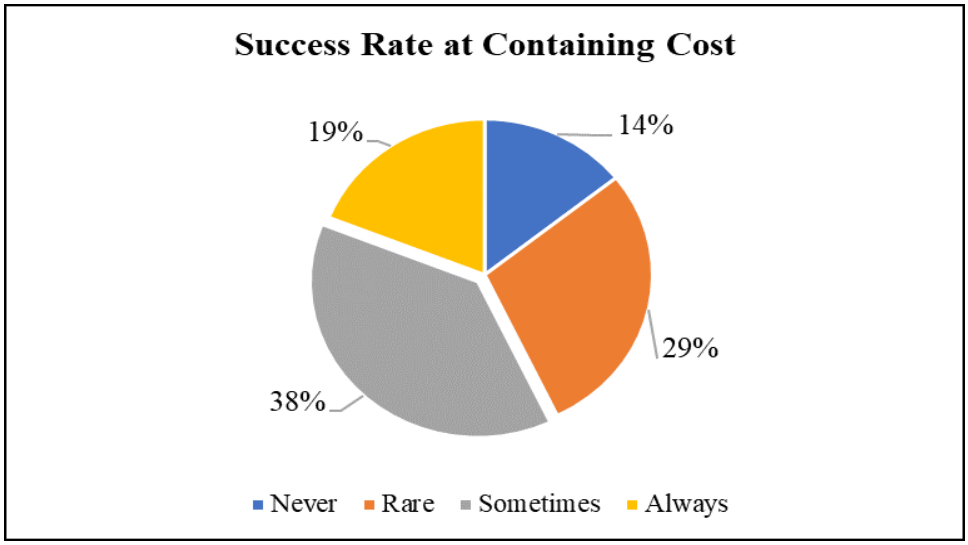

Figure 4. 29: Success rate at containing cost

As can be seen from the findings of question QNC23, most of the respondents were able to contain the costs. Over a third (38%) of the enterprises said they sometimes contain the cost, while another third (29%) stated they always contain the costs, while 19% of the respondents stated that they rarely contain costs in strategic alliances, with 14% saying they never do that. As in question QNC22, a further interrogation was conducted for the majority that said they could contain the costs. The investigation revealed that all those with a business system for capturing business and cost activities, costing accounting system, systematic activities schedules and produced essential information for managing strategic alliance and transparent performance metrics were in the majority that could contain costs.

The respondents were asked in QNC24 if there were any changes they would make about how the enterprises were addressing cost management in a strategic alliance. The majority, i.e. 28 respondents (52%), agreed to and provided suggestions as per Figure 4.30:

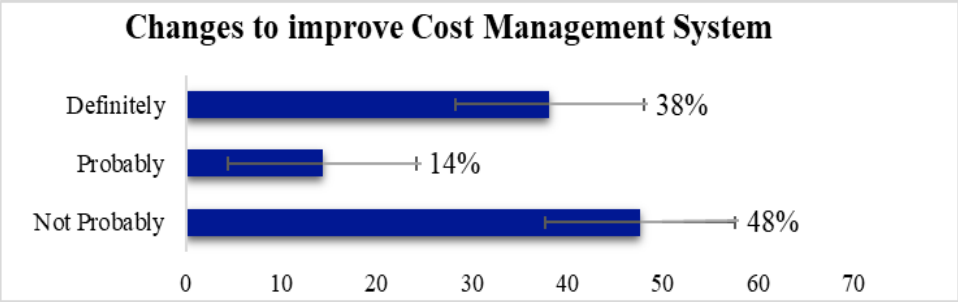

Figure 4. 30: Improvement to cost management in strategic alliances

Respondents were asked about the potential change they would make to improve the cost management system in strategic alliance (38%) indicated that some changes should be made (14%) indicated some potential changes that needed to be made.

Based on the responses to a specific question in QNC25, the respondents provided the following suggestion as represented in Table 4.9:

Table 4. 9:Suggestion to improve cost management in strategic alliances

Suggestions to improve Cost Management in Strategic Alliance	*%*	*(n)*
A system that captures all alliance costs	4.8	2
The interface of alliances activities with financial systems	4.8	2
activities in the strategic alliance	4.8	2
capture non-financial costs	4.8	2
capture non-financial costs	9.5	4
capturing non-financial costs using a proper system	4.8	2
capturing no financial cost using a proper system	4.8	2
cost of all value addition activities in the life cycle of a strategic alliance	4.8	2
costing of all value addition activities in the life cycle of strategic alliance	4.8	2
the interface of alliances activities with financial systems	4.8	2
non-financial relating to strategic alliances	4.8	2
non-financial activities relating to	4.8	2
non-financial activities relating to strategic alliances	19	8
a system that comprehensively captures all alliance cost	9.6	4
a system that comprehensively captures all financial costs	4.8	2
The business must review the cultural orientation of strategy to make more partners that have a cultural orientation of the cost serving	4.8	2
Total	**100**	**42**

Most of the suggestions provided by the responses agree with the findings in sections 4.3 to 4.6 of this study.

4.7.5 Enterprise Cost Management (ECM) effectiveness in strategic alliances

Further statistical analysis was conducted to prove or disprove research proposition three (P_3) that stated: *The lesser application of the appropriate enterprise cost conceptual model in a real-life alliance project, the lower its corporate performance.* To do this, thirteen key influencing variables that were previously analysed in research questions one and two in sections 4.3 to 4.6 above, were then validated with the practical implication on cost effectiveness. The variables included were:

i. Alliance life cycles (from alliance strategy to alliance stability & maturity),
ii. Alliance system,
iii. Non-financial activities costed or costing of non-financial activities,
iv. Resource (material, plant, budget),
v. Schedule of activities,
vi. Cost Drives in strategic alliances,
vii. Evaluation of cost,
viii. Capturing cost information,
ix. Search cost,
x. Monitoring cost,
xi. Enforcement cost,
xii. Loss of specific investments in strategic plan, and
xiii. Application of both Activity Based Costing (ABC) & tradition cost accounting system.

All these thirteen influencing variables were then correlated with nine dependent variables that were picked from responses to questions QNB14-QN18 of the questionnaires, namely:

i. Incremental market share
ii. Number products introduced on the market
iii. New products introduced on the market
iv. Evidence of reducing costs
v. Shortening product life cycle
vi. Managing risk
vii. Negotiating deals that includes risks and benefits
viii. Presence of costs systems, and

ix. Nature of success rate.

Based on the responses from QNB14-QN18, the percentage distribution of these variables is shown in Figure 4.31

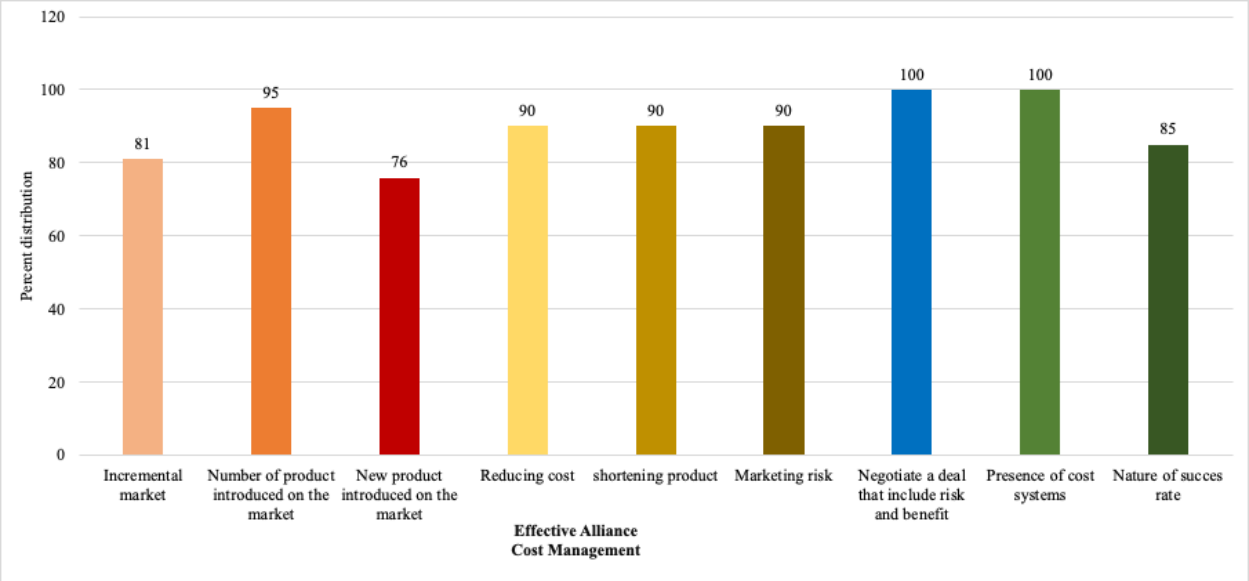

Figure 4. 31: Effectiveness in Enterprise Cost Management (ECM)

These variables were then created into a composite variable operationalised as Enterprise Cost Management (ECM) that measuring effectiveness. The study results indicated that six variables had *P* values below 0.05 implying that these were significant in influencing ECM. These variables were; alliance strategy, non-financial activities costed, evaluation of cost, capturing cost information, search cost and loss of specific investments in strategic plan. The results of this analysis are shown in Table 4.10.

Table 4. 10: Enterprise Cost Management Effectiveness in Strategic Alliance

Variable	Category	Effective	Very Effective	*P- Value*
Alliance startup & strategy				
	Disagree	0 (0.0)	2 (5.7)	
	Moderate	2 (33.3)	2 (5.7)	
	Agree	4 (66.7)	32 (88.9)	0.091
Alliance partner training				
	Disagree	2 (33.3)	4 (11.1)	
	Moderate	4 (66.7)	32 (88.9)	0.150
Alliance due diligence				
	Disagree	0 (0.0)	2 (5.6)	
	Moderate	6 (100)	34 (94.4)	0.554
Alliance contracting	Disagree	0 (0.0)	2 (5.6)	

Variable	Category	Effective	Very Effective	*P- Value*
	Moderate	6 (100)	34 (94.4)	0.554
Alliance execution	Disagree	0 (0.0)	2 (5.7)	
	Moderate	6 (100)	34 (94.4)	0.554
Alliance growth	Disagree	0 (0.0)	4 (11.1)	
	Moderate	6 (100)	32 (88.9)	0.391
Alliance stability & maturity	Disagree	0 (0.0)	2 (5.6)	
	Moderate	6 (100)	34 (94.4)	0.554
Alliance system	Disagree	0 (0.0)	4 (11.1)	
	Moderate	4 (66.7)	24 (66.7)	
	Agree	2 (33.3)	8 (22.2)	0.627
Non-financial activities costed	Disagree	2 (33.3)	12 (33.3)	
	Moderate	2 (33.3)	22 (61.1)	
	Agree	2 (33.3)	2 (5.6)	0.088
Resource (material, plant, labour)	For very few projects	2 (33.3)	12 (33.3)	
	For number of projects	2 (33.3)	18 (50.0)	
	For all projects	2 (33.3)	6 (16.7)	0.592
Resource (material, plant, budget)	For very few projects	2 (33.3)	22 (61.1)	
	For number of projects	2 (33.3)	10 (27.8)	
	For all projects	2 (33.3)	4 (11.1)	0.283
Schedule of activities	For number of projects	2 (33.3)	14 (38.9)	
	For all projects	4 (66.7)	22 (61.1)	0.795
Drives cost in strategic alliances	Organization	0 (0.0)	10 (27.8)	
	Partners	2 (33.3)	6 (16.7)	
	Other	2 (33.3)	14 (38.9)	0.361
Evaluation of cost				
	Moderate agree	0 (0.0)	12 (33.3)	
	Agree	2 (33.3)	20 (55.6)	
	Strongly agree	4 (66.7)	4 (11.1)	0.004
Capturing cost information				
	Fairly satisfied	2 (33.3)	28 (77.8)	
	Satisfied	4 (66.7)	6 (16.7)	
	Fully satisfied	0 (0.0)	2 (5.6)	0.028
Search cost				
	Strongly agree	2 (33.3)	2 (5.6)	
	Disagree	0 (0.0)	6 (16.7)	
	Moderately agree	2 (33.3)	2 (5.6)	
	Agree	2 (33.3)	26 (72.22)	0.015
Monitoring cost				
	Moderately agree	2 (33.3)	6 (16.7)	
	Agree	2 (33.3)	18 (50.0)	
	Strongly agree	2 (33.3)	12 (33.3)	0.592
Enforcement cost				
	Moderately agree	2 (33.3)	6 (16.7)	
	Agree	2 (33.3)	14 (38.9)	
	Strongly agree	2 (33.3)	16 (44.4)	0.625
Loss of specific investments in strategic plan				
	Disagree	2 (33.3)	2 (5.6)	
	Moderately agree	2 (33.3)	28 (77.8)	
	Agree	0 (0.0)	4 (11.1)	
	Strongly agree	2 (33.3)	2 (5.6)	0.015
Application of both BC & tradition cost accounting system				
	Rare	0 (0.0)	14 (38.9)	
	Sometimes	2 (33.3)	8 (22.2)	
	Usually	4 (66.7)	14 (38.9)	0.172

4.8 Qualitative Findings for Practical Application to Real-Life Project

In this section, qualitative results are presented that relate to the third Research Question (RQ03). **RQ03** asked; *What is the practical application of an enterprise cost conceptual model in a real-life project?* Moreover, the third proposition **(P_3)** stated: *The lesser application of the appropriate enterprise cost conceptual model in a real-life project, the lower its corporate performance*. This section covers five questions QLD17 – 21.

4.8.1 Performance metrics and benefits of using enterprise cost management approaches

Questions QLD17 - 19 focused on three key performance metrics that are probable for effective strategic alliance management. These include financial performance, time to market and product innovation measurements. The key informants were asked in QLD18 to state the performance measures they use to gauge the success of the strategic alliance. Over three-quarters (78%) used the generally accepted performance measures. Additional performance metrics that are used, as alluded to by the respondents, included:

i. REC (Revenue Earning Customers);
ii. MOU (Minute of use Per Customer);
iii. DREC (Daily Revenue Earning Customer);
iv. EBITDA (Earnings Before Interests, Taxation, Depreciation & Amortization;
v. After Sales Evaluations;
vi. Number of Chains (Inclusive value), Gross Margin Per Service Line;
vii. ARRGU (Average Revenue Per Revenue Generating Unit); and
viii. Capex Intensity.

Responses from question QLD20 related to benefits would accrue for enterprises that use the cost management conceptual model. Two key informants, one in mobile telephony and one in Internet service provision, stated there are benefits of using structured and systematic cost management in managing strategic alliances. These findings are elaborated in Text Box 4.15.

Text Box 4. 15:List of new products introduced attributable to the strategic alliance

In 2015, Data and Voice Bundles, Crush Plan TPDI TV, Star Leaf, MPLS, Fibers to the homes, FM contribution for broadcasting services, were among the new products that were introduced on the market, while 2013 saw the coming in of VSAT back-up services and local hub in partnership… ***KI07 on new products introduced attributable to strategic alliance.***

One of the benefit enjoyed by organizations using a cost management system includes organisation been able to drill down to see really how their business is doing using the conceptual model approach, and its ability to make decision based on their analysis on how to improve on which relationship to keep ***(KI02 on benefits).***

For us, the benefits we enjoy using the cost management system are many, and these includes, Long term relationship with our partners, profitability, responsiveness in pricing, effectiveness in negotiation of a contract, introduction of products & competitive advantage in the market ***(KI08 on the benefits enjoyed).***

Most key informants stated that the enterprise cost management approaches provide collaborative approaches to reducing costs in strategic alliances. Strategic ECM approaches make it feasible for firms to align corporate strategy and functional area implementation, allowing them to formalize goals, establish accountability metrics and tracking to ensure timely plan completion and drive strategic alliances with multiple groups like partners, customers and suppliers. They rated the applicability of the following benefits as high in Table 4.11:

Table 4. 11: Applicability of the benefits

S/N	Benefits	Applicability
1	A structured approach to help manages cost	High
2	Sourcing strategies	High
3	Visual depiction of the supply chain, engineering, purchasing & product assembly	High
4	Total Cost of Ownership (TCO)-based decision-making	High
5	Enhanced spend analytics accelerate analysis	High
6	Risk sharing implementation structure	High

4.8.2 Factors contributing to strategic alliance success

Of high significance is the finding that the presence of cost systems between partners played a vital role (90%) in the success of a strategic alliance arrangement, while 10% stated that they play a fairly important role in the success of strategic alliances. This finding is consistent with results in other sections, such as QNA01 and QNB07 - QNB11.

Text Box 4. 16: Performance measures used to measure success in a strategic alliance

*During contracting and contract negotiation stages for a strategic partnership, cost issues are highlighted and addressed. However, as the partnership continues, there are some other aspects of the business such as the need for subcontracting which may come with its own challenges and cost and needs to be captured (**KI03 factors that contribute to success in strategic alliance).***

Further, responses to questions QLD20 stated that proper subcontracting is key to ensuring a successful strategic alliance, as shown in Text Boxes 4.17.

Text Box 4. 17: key factors contributing to success in a strategic alliance

*We do not have any performance measure system apart from the profit from the partnership. The profit margins also encourages us to seek for a long term relationship with our profitable partners **(KI04 on Performance measure system).***

*In general terms the state of our relationship is measured to be successful if our partnership is allowed to continue working, then we would know that our partners are benefiting from the partnership, and if we are also eager to continue working with them we would tell that we are also benefiting from the partnership, but we do not have any matrix that we can say we are using to determine the success or failure of the partnership **(KI07 on state of the strategic partnership as a measure of success).***

On other factors contributing to success in a strategic alliance, some key informants to question QLC18 stated that transparency from our suppliers in terms of sharing all the necessary information, approaching the market, and pricing various products was key to a success of a strategic alliance. When looking at measures used by strategic alliance managers to manage cost,

key respondents in the Mobile phone service provision stated that they would look for holistic features that cover not only the cost but everything related to a strategic partnership. He further stated that *"In any given business, if you are going to manage people, you obviously need to manage the person-hours one puts in, and you also need a system that is going to help you capture this information to determine how much you are going to pay, and if you have a fixed arrangement you must have a system that has a feature that manages to ensure that employees are following the set-up processes and if there are not following processes you also need to know what is it that is going to be done to make sure that employees are complying. You must make sure that there are customers in the picture. If customers are complaining, how long does it take for the customer to get the response,"* KI06 said.

Some critical informants on QLD21 gave more in-depth details in Text Box 4.18

Text Box 4. 18: Applicability of strategic alliance in business partnership

The applicability of strategic areas are basically split into several key areas. We have strategic areas that are dealing with customers, business processes, financial (like revenue and cost), and within these strategic areas, you have to look at different initiative that manage wastes, so that whatever happens you are going to have someone who is going to monitor the ratio and monitor the rates (i.e. if you are making a decision to enter into partnership or terminate that partnership…. And you are also looking at all the different perspectives of the alliance to ensure that whatever you are doing aligns well with your strategic objectives ***(KI01 on the applicability of Strategic Alliance****).*

*The cost of sell in our partnership is quite healthy not impacting negatively on our profitability and at the same time we are able to maintain excellent relationship with our customers; our customers get to feel that whenever they have a problem we are responsive to their needs, and in terms of performance for both financial and non-financial, we are doing quite well though there is always room for improvement to adequately address strategic partnership financial and non-financial cost (****KI10 on the business profitability applicability.***

Generally, there were different interpretations of what key informants consider the applicability of an enterprise conceptual model in a strategic alliance. Costs in a strategic alliance can be addressed at each stage of a business partnership circle, and costs associated with each stage of the strategic

alliance. The applicability of a cost model concerns several strategic considerations. Respondents to question QLD21 revealed that partnership areas split into several key areas. They had strategic areas that dealt with customers, business processes, and finances (like revenue and cost). They must look at different initiatives to manage costs within these strategic areas.

4.8.3 Summary of issues emerging for the practical application to a real-life project

Based on the responses to questions in section C of the interview guide, the following patterns have emerged:

a) Benefits of strategic alliances.
b) Success factors.
c) Risk factors.
d) Results performance of alliance.

The issues and patterns that have emerged from sections 4.7 and 4.8 are diagrammatically summarised as shown in Figure 4.32:

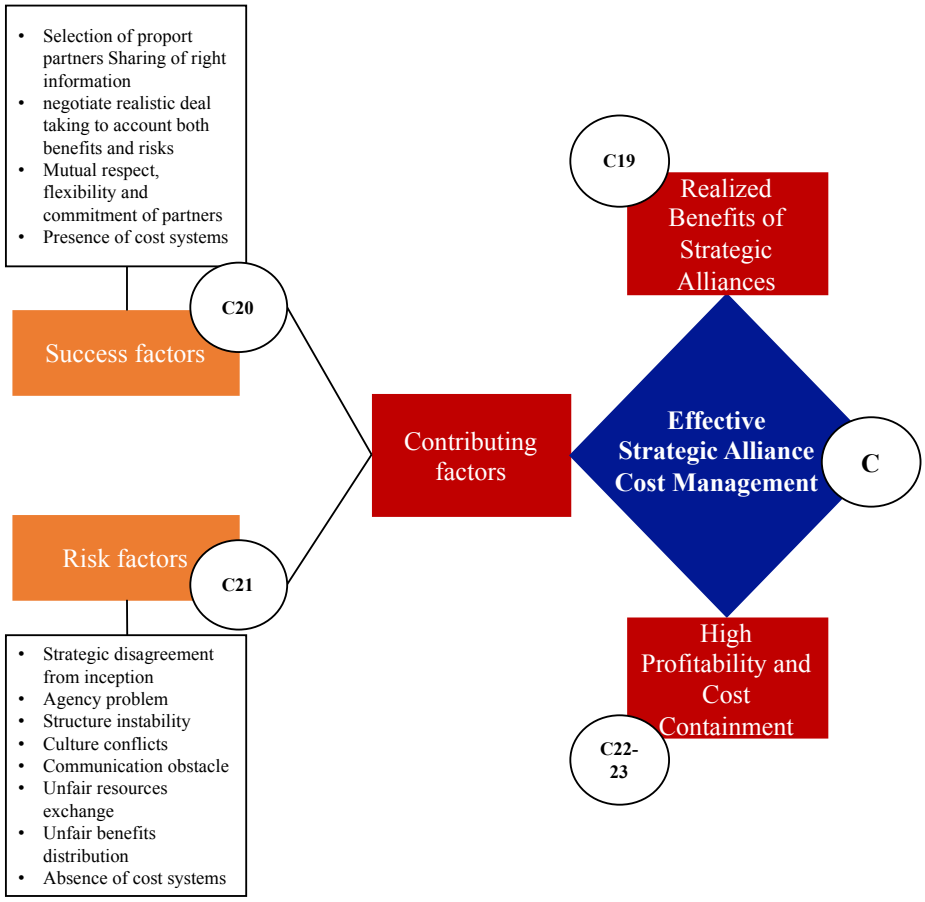

Figure 4. 32: Summary of patterns emerging on the applicability of enterprise cost model

4.9 Discussions of Results and Analysis

Based on the study's findings, this section discusses and analyses the study's results concerning the three research questions and propositions.

First, the findings to research question one: What main standard activities contribute *to costs between strategic alliance partners?* are in line with the scholarly argument made by other studies (e.g. Ahouse, 2013; Steinhilber, 2008; Segil, 2005; Hwang & Yong-Sik, 2007, Adams, 2011) and concluded that for the alliance to be successful, this is supported by:

i. *Business Case and Executive Sponsorship;* No alliance can secure investment or commitment without a strong business case. Alliance sponsors play an important role in assuming accountability and fully supporting the alliance;
ii. *Alliance Management:* Alliance management plays a key role in defining, establishing, building and maintaining the relationship with the alliance partner; and

iii. *Governance Model:* A robust governance model is critical to building an effective working relationship and maximizing the alliance's performance. Governance provides the playbook for driving and sustaining the value of the alliance.

The findings from the interviews and questionnaires resulted in the convergence themes and patterns as follows:

(i) Reconnaissance (*Alliance Start-up & Strategy*).
(ii) Legal consideration and Contracting (*Alliance due diligence, Alliance Contracting*).
(iii) Agreement on Business objectives (*Alliance Partner Forming*).
(iv) Technical arrangements (*Alliance Partner Forming*).
(v) Testing and piloting (*Alliance due diligence*).
(vi) Commissioning (*Alliance growth*).
(vii) Management and maintenance (*Alliance execution*).
(viii) Maturity (*Alliance stability & maturity*).
(ix) Termination (*Alliance sustaining/retiring*).

The findings further observed that partners perform critical and standard activities during the life cycle phases of strategic alliances. Organisations must choose governance structures that minimise transaction costs associated with strategic alliance activities. The current research is anchored on transaction cost and resource-based theories. Transaction cost economics assumes that business enterprises choose governance structures that economize transaction costs associated with establishing, monitoring, evaluating, and enforcing agreements (Williamson 1979; 1981). The theory has direct implications for understanding how alliances are used to minimise the cost of the myriad implicit and explicit contracts between collaborative companies (Wright and McMahan, 1992). Given that it is the activities that give rise to cost, it is therefore crucial that if an organisation engaged in the strategic alliance has any chance of success, they must systematically design their alliances and pay attention to activities that give rise to cost to ensure effective cost management.

In answering the first research question, the study also found that strategic alliance builds systems of capturing business activities. This is evident in QNB09, when respondents were asked to state if they had a system of capturing all business activities related to strategic alliances. The majority had full or partial systems of capturing business activities, and only a minority (10%) of these

organisations did not have any system in place. In line with the literature assertions by Tekavcic and Sink (2002), cost management is a set of techniques and methods for planning, measuring, and reporting intended to improve a company's products and processes. The ultimate purpose of cost management is to provide information that companies need to provide customers value.

The organisations surveyed emerged that costs in strategic alliances are either driven by one party or both parties in the collaboration. Being in charge of driving costs would result in better and more effective cost management within an alliance. This argument is supported in the literature by Ask and Laseter (1998), who provided cost modelling principles. Ask, and Laseter (1998) expounded that cost management models should capture cost drivers, such as labour productivity or hourly wage rates. Capturing drivers produces models that support "what if" analysis, not just "what is." Documenting drivers also highlights trade-offs because the same driver can affect different cost elements differently.

Further, there is evidence that organisations produce three levels of information for decision-making during the life of an alliance. This information was at three levels, namely:

(i) Process Category (PC) levels.
(ii) Management Process (MP) level.
(iii) Business Process (BP) level.

In relating this outcome with literature, Veal (2005) pointed out that Activity Based Costing (ABC) and Performance-Based Costing (PBC) systems complement each other; designing, producing and distributing products and services require many activities to be performed. Performing these activities requires resources to be purchased and used. The ABC logic is restated in reverse order because resources generate costs, activities consume resources, and products consume activities. This kind of logic has been noticed during the eight life cycles of alliances that emerged in the study. Thus, an alliance's activities are identified, and costs are traced to these activities (or activity cost pools) based on the required resources. At the heart of cost is control's management function (Veal, 2005). The alliance manager would be interested in enabling a process to quantify the management process. This is called the process category. The process category is then assigned an activity number. The enabled management process (EC) can now be traced to a particular activity

or cost driver within the alliance life cycle. When the process number (EC) is attributed to the Alliance Life Cycle Phase (ALCP), it results in a process element cost of the activity driver.

In concluding discussions on the first research question, both findings from the quantitative and qualitative data resulted in the following summary of emerging patterns and themes:

Strategic Alliance Cycles

Integration of eight life cycles is what most firms are using. It was noted that the growth phase was the least, scoring at 71%. This could be attributed to the nature of alliances, projects with predefined objectives and life span. However, the growth phase is critical and validated in B2, where most firms were able to introduce new products due to engaging in strategic alliances.

Defined Systems for Capturing Business Activities

If business activities are known, it follows that costs could be identified. The majority of organisations had a business system for capturing activities.

Quantify and Cost Non-financial activities

While most firms did not have a full-fledged system for quantifying and costing non-financial information, most firms saw it essential to have a partial system for quantifying and costing non-financial.

Essential Alliance Cost Information

Generally, firms would require generic cost information for effective cost management, such as:

(i) Resource (material, plant, Labour) schedules.
(ii) Resource (material, plant and Labour) budgets.
(iii) Activity or task breakdown cost or budget.
(iv) Schedule of activities.
(v) Project day works schedule.
(vi) Project profit and loss account.
(vii) Project cash flow.
(viii) Labour and plant timesheets.

(ix) Price inflation price adjustment index.

However, the study found that most alliances consider certain cost information requirements as key for effective management. From the findings, the following cost information requirement was seen as essential for effective cost management:

(i) Resource material, plant and Labour,
(ii) budgets, Schedule of activities,
(iii) Project day works schedule,
(iv) Project profit and loss account, and
(v) Labour and plant timesheets.

Partnership Cost Driver

The findings have shown that costs are primarily managed when all partners drive them in the strategic alliance instead of cost being driven by either party.

Organisational-wide Reporting

The study has shown that cost is reported at any of the three levels in an alliance, which include; Process Category (PC), Management Process (MP) and Business Process (BP) levels. Instead of just producing any of the reporting levels, the findings show that most firms see it essential to produce information at all levels of the organisation.

4.9.1 Evidence to answer the research question (RQ1) and corresponding proposition (P_1)

In answering the research question (RQ 1): *What are the main standard activities contributing to costs between strategic alliance partners?*

The main standard activities include strategic alliance cycles that consist of the Integration of eight life cycles mostly used by firms. These are; alliance start-up and strategy, alliance partner forming, alliance due diligence, alliance contracting, alliance execution, alliance growth, alliance stability & maturity and alliance sustaining/retiring. Other standard activities include defining business activities, quantifying and cost non-financial activities, essential alliance cost information, partnership cost driver, and enterprise-wide reporting.

Thus, based on the results, findings, synthesis and analysis above, this research has answered the first Research Question (RQ 1): What main standard activities contribute to costs between strategic alliance partners?

Proving or disproving research proposition one (P1): There are no specific main standard activities give rise to costs between strategic alliance partners. Based on the arguments above, this proposition has been disproven that no specific main standard activities give rise to costs between strategic alliance partners. The synthesis, analysis and findings assisted in proving or disproving the first proposition as stated above.

Second, building on the first research question, the study found that common costs are prevalent in strategic alliances. The nature of typical strategic alliance costs revealed in this study agree with the cost drivers standard in strategic alliance shown in sections 4.3 and 4.4 (Standard Activities Giving Rise to Cost) and conforms to the scholarly arguments that strategic alliances follow a particular pattern of cost (Steinhilber, 2008; Segil, 2005; Hwang and Yong-Sik, 2007). ABC system has been seen as a modern and superior cost management system for effective cost management. The need for new systems and approaches is supported by Gunasekaran *et al*. (2005), who argued that:

i. traditional costing systems do not provide sufficient non-financial information;
ii. existing product costing systems are inaccurate;
iii. current costing systems do not encourage improvements; and
iv. overhead costs are predominant.

Another scholar, Turney (1996), argued that the ABC system is efficient and effective at measuring the cost, performance of activities and cost objects. ABC assigns costs to activities based on resource consumption and then allocates costs to cost objects based on their required activities. The ABC accounting methodology assigns costs to activities rather than products or services. To correctly associate costs with products and services, ABC assigns costs to activities based on their use of resources and then assigns costs to cost objects. This approach is in tandem with the behaviour of cost drivers discussed in section 4.4. Based on the Kaplan Financial Knowledge Hud (2019), the following is a summary of why ABC is more favoured than the traditional cost accounting system:

i. ABC provides a more accurate cost per unit. As a result, pricing, sales strategy, performance management and decision-making should be improved.
ii. It provides much better insight into what drives overhead costs.
iii. ABC recognises that overhead costs are not all related to production and sales volume.
iv. In many businesses, overhead costs are a significant proportion of total costs, and management needs to understand the drivers of overhead costs to manage the business properly. Overhead costs can be controlled by managing cost drivers.
v. It can be applied to derive realistic costs in a complex business environment like strategic alliances.
vi. ABC can be applied to all overhead costs, not just production overheads.
vii. ABC can be used just as quickly in in-service costing as in product costing.

However, implementing a pure ABC system has cost and management implications. Some of the management challenges include:

i. ABC will be of limited benefit if the overhead costs are primarily volume related or if the overhead is a small proportion of the overall cost.
ii. It is impossible to allocate all overhead costs to specific activities.
iii. The choice of both activities and cost drivers might be inappropriate. In the case of strategic alliances, a proper definition of cost drivers (cycles) would be critical.
iv. ABC can be more complex to explain to the stakeholders of the costing exercise.
v. Sometimes, the benefits obtained from ABC might not justify the costs.
vi. Other systems may need to be changed in strategic alliance partner organisations that may not have implemented the ABC system before.

Therefore, using both ABC and traditional cost accounting systems is desirable for effective cost management in strategic alliances.

The study also found that having a robust performance management system with quantified metrics is essential for successfully executing a strategic alliance. However, strategic alliances pose some unique challenges when it comes to performance measurement, and these have a great deal to do with the process by which metrics are developed and by which they are implemented. Hughes (2002) argued that alliance metrics must be created and used in a context that crosses external and

internal organisational boundaries. From the standpoint of these findings, this reality needs to be understood and managed if companies successfully implement metrics on individual alliances across their alliance portfolio. Several studies have argued that strategic alliances improve the performance of a firm. Hoelz and Bataglia (2022) stated that strategic alliance firms tend to exhibit better operating performance than the same sector firms before strategic alliances, while Mohanram and Nanda (1996) reported that firms experience performance deterioration before joining alliances.

Furthermore, Marciukaityte *et al.* (2009) examined operating performance before and after alliances and cooperation between partners after strategic alliances. In a related study by Coopers and Lybran (1997), firms involved in alliances had 11% higher revenue and a 20% higher growth rate than companies not engaged in alliance activity. The results were that firms showed better performance having entered into strategic alliances. These positive performances do not just happen by luck; an alliance should be effectively structured and managed to create value for the firm (Segil, 1998). Therefore, to enhance effective cost management and the success of a strategic alliance, performance metrics are an essential component of the model for managing costs in strategic alliances.

So, how should costs in strategic alliances be measured? The study summed the second research question through the summary of the following emerging patterns and themes:

Cost Accounting System

A comprehensive cost accounting system in strategic alliance arrangements is critical to effective cost management, contributing to a success of a strategic alliance.

Costing Systems

ABC and traditional cost accounting systems are desirable for effective cost management in strategic alliances.

Identification of Common Costs

Identifying standard strategic alliance costs enhances the effective management of costs in strategic alliances and leads to a successful implementation.

Financial and Non-Financial Cost Measurement Model

To enhance the effective cost management of a strategic alliance, an ideal model should capture both financial and non-financial costs in the management of strategic alliances.

Staff Level of Efforts (LoE)

Staff time and cost play an important role in strategic alliance's practical cost management approaches. Staff costs are essential costs that must be reflected in managing strategic alliances to enhance effective cost management.

Performance Metrics

A robust performance management system with quantified metrics is essential for successfully executing a strategic alliance. The system should encompass both financial and non-financial performance management measures. However, strategic alliances pose some unique challenges regarding performance measurement, which extensively deal with how metrics are developed and implemented. Performance metrics are an essential component of the model for managing costs in strategic alliances to enhance effective cost management and the success of a strategic alliance.

4.9.2 Evidence to answer the research question (RQ2) and corresponding proposition (P_2)

The issues and patterns from section 4.5 are diagrammatically summarised as shown in Figure 4.24. As shown in Figure 4.24, six patterns have emerged regarding cost measurement approaches. These approaches are linked and can be further merged for clarity of modelling, i.e. B07-10 with B11, B12 with B13 and B14-B18 and QL12 to QLC16. The Figure also shows a linkage that connects the staff level of efforts with the ABC accounting system. This linkage arises since staff activities performed and documented will constitute cost drivers requisite for performing ABC accounting computations. Both traditional and ABC systems provide input to the financial performance management system.

Therefore, answering the research question (RQ 2): *How should costs in strategic alliances be measured?* Costs in strategic alliances should be measured by approaches that include costing and cost accounting systems, identification of common costs (search, enforcement, M & E and

investment costs), performance metrics that consider financial and non-financial cost measurement model, staff Level of Efforts (LoE) and performance metrics.

Thus, based on the results, findings, synthesis and analysis above, this research has answered the second research question (RQ 2): How should costs in strategic alliances be measured? Proving or disproving research proposition two (P_2): There are no specific approaches required to measure costs in strategic alliances. Based on the analysis above, this proposition has been disproven that no specific approaches are required to measure costs in strategic alliances. The synthesis, analysis and findings assisted in proving or disproving the second proposition as stated above.

Finally, when addressing the third research question on the practical application to a real-life strategic alliance, it emerged from the study that benefits accrue for enterprises that tend to use a structured and systematic cost management approach when managing strategic alliances. In relating this with other research studies on strategic alliances, there are theories posited addressing why firms enter closer business relationships. This includes efficiency creation through economies of scale specialisation and/or rationalisation (Lorange and Roos, 1993; Gugler, 1992), maximise the use of facilities (Lindsay, 1989), complementary capabilities (Henricks, 1991), growth and improvement 1989), spreading financial risk and sharing costs (Spekman and Sawhney, 1990), each predicting when strategic alliances will be formed.

Todeva and Knoke (2005) grouped the variety of motives and drivers above into four distinctive levels (i) Organisational, (ii) Economic, (ii)Strategic and (iv) Political. On economic motive, they argued that the market, cost and risk related - market seeking; cost-sharing and pooling of resources; risk reduction and risk diversification; obtaining economies of scale; co-specialisation was among the motives for getting into strategic alliances. Wheelen and Hungar (2000) added that companies formed alliances to obtain technology, gain access to specific markets, reduce financial risk, reduce political risk, and achieve or ensure competitive advantage. Based on the work of Todeva & Knoke (2005), the literature agrees with the findings of this study in QNB19-1 to 19-3.

Based on the findings, certain factors contribute to strategic alliance success. Among the factors that all respondents agreed to were the need for reaching a realistic agreement on the time to market, mutual respect, flexibility and commitment. All these factors were regarded as important. In line with the literature, Lu and Burton (1998) posited that the first important issue is the

formation, operations and interaction between partners and the alliance entity. They argued that a partner's selection and negotiation outcome during the formation stage subsequently influences the strategic alliance's performance. Of critical importance is the finding regarding the presence of cost systems between partners played a vital role in the success of a strategic alliance arrangement. The literature underscores this finding, as cited by Gulati and Singh (1998), that the architecture of cooperation in the magnitude of hierarchical controls in contractual relationships such as alliances is influenced by anticipated coordination costs and expected appropriation concerns. This convergence is confirmed by the finding that has brought out factors contributing to the successful strategic alliance, including transparency, information sharing, and costs related to a strategic partnership.

Therefore, this study brings out the practical application of the enterprise cost conceptual approach to real-life projects through the summary of the following emerging patterns and themes:

Benefits of strategic alliances

It emerged that organisations have different motives to benefit from strategic alliances arrangement. These benefits included but were not limited to cost-sharing, cost reduction and promotion of a short-life product cycle.

Success Factors

The study has shown that there are factors that contribute to a success of a strategic alliance. It follows that for a strategic alliance to be successful, the following success factors must be present:

a) selection of proper partners (due diligence cited in all);
b) sharing of correct information;
c) negotiating realistic deal taking to account both benefits and risks;
d) mutual respect, flexibility and commitment of partners; and
e) presence of cost systems.

Risk Factors

It further emerged from the study that risk factors inhibit a strategic alliance's success. It follows that for a strategic alliance to be successful, the following risk factors must be mitigated:

a) Strategic disagreement from inception.
b) Agency problem.
c) Structure instability.
d) Culture conflicts.
e) Communication obstacle.
f) Unfair resources exchange.
g) Unfair benefits distribution.
h) Absence of cost systems.

Results Performance of Alliance

The study has shown that all enterprises with a business system for capturing business and cost activities such as cost accounting systems, systematic activities schedules and produced essential information for managing strategic alliances and transparent performance metrics resulted in high containment of cost and high profitability. It follows that adequate business systems must be in place for a strategic alliance to be profitable.

4.9.3 Evidence to answer the research question (RQ3) and corresponding proposition (P_3)

In answering the research question (RQ 3): *What is the practical application of an enterprise cost conceptual model in a real-life project?* The practical application of an enterprise cost conceptual approach showed that success and risk factors contribute to effective cost management throughout the strategic alliance life cycle. The success factors that must be present include selecting partners, sharing the correct information, negotiating real deals considering both benefits and risks, mutual respect, flexibility, and partners' commitment. Risk factors that must be mitigated are strategic disagreement from inception, agency problems, structure instability, culture conflicts, communication obstacle, unfair resource exchange, unfair benefits distribution and absence of cost systems. The benefits included but not limited to cost-sharing, cost reduction and promotion of a short-life product cycle. Finally, study statistical analysis was conducted to prove or disprove research proposition three (P_3) which is: *The lesser application of the appropriate enterprise cost conceptual model in a real-life alliance project, the lower its corporate performance.* In addressing this, the study combined all the thirteen key influencing variables from research questions one and two and validated them with the practical implication on cost effectiveness. These variables

resulted into a composite variable operationalised as Enterprise Cost Management (ECM). This operationalisation is convergent with the scholarly definitions by (Ask, and Laseter, 1998; Gunasekaran *et al*., 2005; CGN Global, 2013) but improves on metric of ECM. This study adds measurement to the definition of ECM in terms of its effectiveness, i.e. not effective, effective and very effective. It further emerged that there are some aspects that are critical in influencing cost effectiveness in strategic alliances. The variables that were significant in influencing ECM were; alliance strategy, non-financial activities costed, evaluation of cost, capturing cost information, search cost and loss of specific investments in strategic plan.

Consequently, adequate business systems must be in place for a strategic alliance to contain cost thereby achieve profitability or improve corporate performance. Effective cost management is central to the organizational performance since an organization measures its corporate performance through a sound and healthy bottom line. This further converges with Satyendra (2020) who argued that two critical factors that determine the bottom line in any enterprise are cost and revenue The organization moves from cost to performance or from failure to success, when it is profitable.

Thus, based on the findings, synthesis and analysis above, this research has answered the third research question (RQ 3) namely: *What is the practical application of an enterprise cost conceptual model in a real-life project?* In the same manner, proving or disproving research proposition three (P_3): *The lesser application of the appropriate enterprise cost conceptual model in a real-life alliance project, the lower its corporate performance.* Based on the analysis above, this proposition has been proven that the lesser application of the appropriate enterprise cost conceptual model in a real-life project, the lower its corporate performance. The synthesis, analysis and findings assisted in proving or disproving the third proposition as stated above.

4.10 Summary of Research Propositions, Data Presentation and Analysis

Table 4.12 shows the synthesis of the research results and how they link to presentations and analysis of each research question.

Table 4. 12: Summary of research propositions, data presentation and analysis

Research Question Answered	Propositions proved or disproved	Presentation and Analysis of data	Conclusion
(RQ 1): What main activities contribute to costs between strategic alliance partners?	**(P_1):** No specific main standard activities give rise to costs between strategic alliance partners.	Sections 4.3; 4.4, and 4.9.1 of chapter 4	Disproved
(RQ 2): How should costs in strategic alliances be measured?	**(P_2):** No specific approaches are required to measure costs in strategic alliances.	Sections 4.5; 4.6; 4.9.2 of chapter 4	Disproved
(RQ 3): What is the practical application of an enterprise cost conceptual model in a real-life project?	**(P_3)** The lesser application of the appropriate enterprise cost conceptual model in a real-life project, the lower its corporate performance	Sections 4.7; 4.8; 4.9.3 of chapter 4	Proved

Table 4.12 confirmed the synthesis and analysis of the research results and substantiated the various sections of the data and the many data analysis sections—this created ease in showing that all the research propositions were proved or disproved.

4.11 Chapter Summary

The results identified specific main standard activities that give rise to costs by determining the strategic alliance life cycles and cost drivers in a strategic alliance life/activity cycle. Figure 4.11 summarises issues arising from the first research question. The results have further shown that focus on processes, systems and decisions of capturing cost in alliances determine how the cost could be measured in strategic alliances. Figure 4.25 diagrammatically shows these components that emerged from the second research question. Finally, the results have shown that to operationalise the conceptual model. The success and risk factors must be determined through strategic alliances' benefits and performance metrics, as shown in Figure 4.32. Based on the results in this chapter, chapter 5 consolidates these findings to propose an Enterprise Cost Management Conceptual Model to manage costs in strategic alliances that enhance corporate performance.

CHAPTER 5 - RESEARCH CONTRIBUTION

5.1 Introduction

This chapter presents the contribution of this study to the body of knowledge. Chapter 4 presented the research results and analysis of the current practices on enterprise cost management approaches in telecoms in Zambia. This chapter aims to develop an Enterprise Cost Management (ECM) conceptual model for managing costs in strategic alliances. This presents a new business leadership paradigm for bringing the gap for the non-existence of a conceptual model for enterprise cost management strategic alliances. Such a conceptual model considers information collected during the literature review and the research findings discussed in chapter 4. It highlighted the difficulties and challenges managers face when working on strategic alliances, principally when managing costs. These challenges revolve around cost management approaches that capture financial and non-financial costs, cost management approaches for strategic alliances, poor performance metrics used by alliance managers, lack of identification of cost drivers, poor definition of success and risk factors in strategic alliances and application of costing systems. The chapter also found that costing personnel in the strategic alliance was critical to effective cost strategic alliance management. Therefore, this chapter combines all the research findings to develop an ECM conceptual model for managing costs in strategic alliances, which other developing countries could adopt. The chapter is organized as follows:

a) Section 5.2 focuses on building the ECM conceptual model;
b) Section 5.3 presents and discusses the proposed ECM conceptual model;
c) Section 5.4 discuss the structure of the conceptual ECM conceptual model;
d) Section 5.5 focuses on how the ECM conceptual model works or is applied in practice;
e) Section 5.6 discusses the original contribution to the body of knowledge; and
f) Section 5.7 discusses the challenges of working with the ECM conceptual model and respective mitigations.

5.2 Building the Conceptual ECM model for Strategic Alliances

Section 2.5.3 of chapter 2 discussed how a conceptual model is built and the different steps one has to go through when building a conceptual model. Table 5.1 is adapted from Table 2.5 of section 2.5.3 of chapter 2. Here the different steps followed when building a conceptual model are shown

in Table 5.1. The last column of Table 5.1 shows whether the development of the conceptual model adhered to the required steps for developing models.

Table 5. 1: Steps in building a conceptual model

Steps	Description of model Development steps	Compliance with Model Building Criteria
Goal	Decide on the overall goal of your intervention. This goal should be visionary or long-term and inspiring. Identify where knowledge is inadequate and further research is needed. Describe and illustrate key hypotheses about the target outcome. This includes understanding the environment within which the model will be used.	This study's main objective was to develop a conceptual cost management model to improve the cost management approaches among strategic partners for telecoms. The conceptual model was developed considering the Telecom sector
Target	Define the target you want to reach, e.g. stakeholders, and establish a shared vision of the relevant spatial and temporal bounds and the most critical system component. Define the purpose and intended use of the model.	The target stakeholders for this model are the companies that pay due attention to the four pillars of the telecom sector: the fixed-line, international gateway, mobile telephony and Internet markets/Internet Service Providers (ISPs) registered with ZICTA involved in strategic alliances. The alliance managers in this sampling were regarded to have sufficient knowledge and experience with strategic alliances and could identify and evaluate costs associated with strategic alliances. Their

Steps	Description of model Development steps	Compliance with Model Building Criteria
		contribution, detailed in chapter 4, was instrumental in developing the model. Other developing countries face socioeconomic challenges similar to the ones faced by Zambia.
Threats	Collect all the relevant information for the model and list all the direct, and indirect factors you believe are threats to your targeted outcome. Arrange the threats to show how each threat relates to other threats that work against achieving your targeted outcome.	Information to develop the model was collected through a literature review and a survey using a questionnaire and interviews. The biggest threats to the implementation of the model are: i. The reluctance of telecoms companies to involve in strategic alliances; ii. reluctance by firms in strategic alliances to embrace costing systems that capture both financial and non-financial costs; iii. failure by firms in strategic alliances to install performance management systems that capture projects performance; and
Interventions	List the current or planned interventions and arrange them adjacent to the threats they are meant to address.	The following interventions are planned: i. Dissemination of the research work to sensitize companies and stakeholders on the benefits of

Steps	Description of model Development steps	Compliance with Model Building Criteria
		using an ECM model to manage costs in strategic alliances; ii. Partnership with the project management Centre of Excellence to promote the model
Develop models	Consider a wide range of processes relevant to the problem and discipline and identify major system drivers included in the model.	The model is developed based on the conceptualisation in the literature of strategic alliance success factors in the existing models by Ahouse (2013), Figure 2.7 Steinhilber (2008); Table 2.3, Segil (2005), Figure 2.5; Hwang and Park (2007), Adams (2011), Figure 2.6; and Doz (1996); Figure 2.8 that postulates that for the alliance to be successful, this should be supported by a business case and executive sponsorship, alliance management and governance. The developed Conceptual model captures the business case and executive sponsorship, alliance management, and governance and includes financial, legal, and human resource considerations.
Use, review, revise, and refine models	As all models represent a vague abstraction of reality, most models must be revised to accommodate new observations and information or to meet changing goals.	The proposed model has the flexibility of being revised should there be new market developments. For example, if new costing management is introduced, new factors can be added should the need arise.

Source: Gross (2003).

Whetten (1989), postulated that a study should systemically address at least six questions when developing a conceptual, namely; (i) what, (ii) how, (iii) why, (iv) who, (v) where and (vi) when. Table 5.2 explains how each these questions were addressed during the process of developing the conceptual model.

Table 5. 2: Compliance with model building criteria

Question	Description	Compliance with model building criteria
What	Here two criteria are recommended to ensure that the correct variables are included: comprehensiveness; (are all relevant factors included?) and parsimony (i.e. should some factors be deleted because they add little value in explaining the model?)	Section 4.3- 4.7 of chapter 4dentified and discussed several factors that affect effective cost management in strategic alliances and identified success factors to identified risks. All the factors identified in these sections were considered in building the conceptual ECM model. Factors that were less significant in explaining the model were excluded from the model, and only those that were significant were included.
How	The question here is how the different elements of the model are related. Here arrows can be used to connect the boxes to show the relationships between different factors of the model.	As shown in Figure 5.1, arrows have been used to indicate the relationships between standard cost drivers, cost management approaches, risk factors, success factors and benefits derived from using an ECM model. The arrows also show how the different ECM components make up the balance between the two contributing factors, risks and success factor and how this link to the whole ECM model.

Question	Description	Compliance with model building criteria
Why	This step involves answering the underlying psychological, economic or social dynamics that justify the selection of factors and the proposed causal relationships.	Factors were selected based on the problems identified in the different sections of chapter 4. The existence of a comprehensive enterprise cost approach for strategic alliance success is not thoroughly investigated, developed and presented. The study, therefore, sought to fill this theoretical and empirical gap by developing an enterprise cost management conceptual model.
Who, Where and When	These conditions place limitations on the usefulness of the model. They set boundaries of the generalisability of the model. The key question is: "Will the model hold in other jurisdictions and across different periods?"	The proposed conceptual ECM model for effective cost management in strategic alliances. Although the model is developed based on Zambian data collected through a survey of telecoms firms operating in Zambia, the model can be applied in other countries that want to maximise the benefits and chances of succeeding in strategic alliances. The model is developed to hold across different times as long as it is adjusted to prevailing socioeconomic conditions.

Source: Whetten (1989)

Considering all the steps necessary in building the conceptual model, the following section presents the proposed ECM model for managing costs in strategic alliances in telecoms.

5.3 The Proposed ECM Conceptual Model for Strategic Alliances

The proposed conceptual model drew on the works of, among others, Ahouse (2013), Steinhilber (2008); Segil (2005), Hwang and Park (2007), Adams (2011), and Doz (1996) in contending with

(i) how the alliance could be successful, (ii) postulated that strategic alliance partners should be supported by an enterprise cost management structure that does captures not only the business case and executive sponsorship, (iii) alliance management, and governance, but also includes (iv) financial, legal, and human resource considerations. Based on the findings and results in chapter 4 that served as a foundation for the proposed ECM conceptual model, below is a discussion of the different anticipated features of the proposed ECM conceptual model:

a) As presented in Figure 5.1, the proposed ECM model focuses on identifying specific main standard activities that give rise to costs, investigating strategic alliance life cycles, and determining the cost drivers in a strategic alliance life/activity cycle.
b) Another prominent feature of the proposed model is the inclusion of processes, systems and decisions of capturing cost in alliances that focus on the cost accounting system, costing systems, identification of standard costs, financial and non-financial cost measurement, staff Level of Efforts (LoE) and performance metrics.
c) The third dimension operationalises the conceptual model of success factors, risk factors, the performance of the alliance, and the benefits of strategic alliances for using an effective strategic alliance enterprise cost management.

Following in Figure 5.1 is the presentation of an Enterprise Cost Management Conceptual Model for managing costs in strategic alliances:

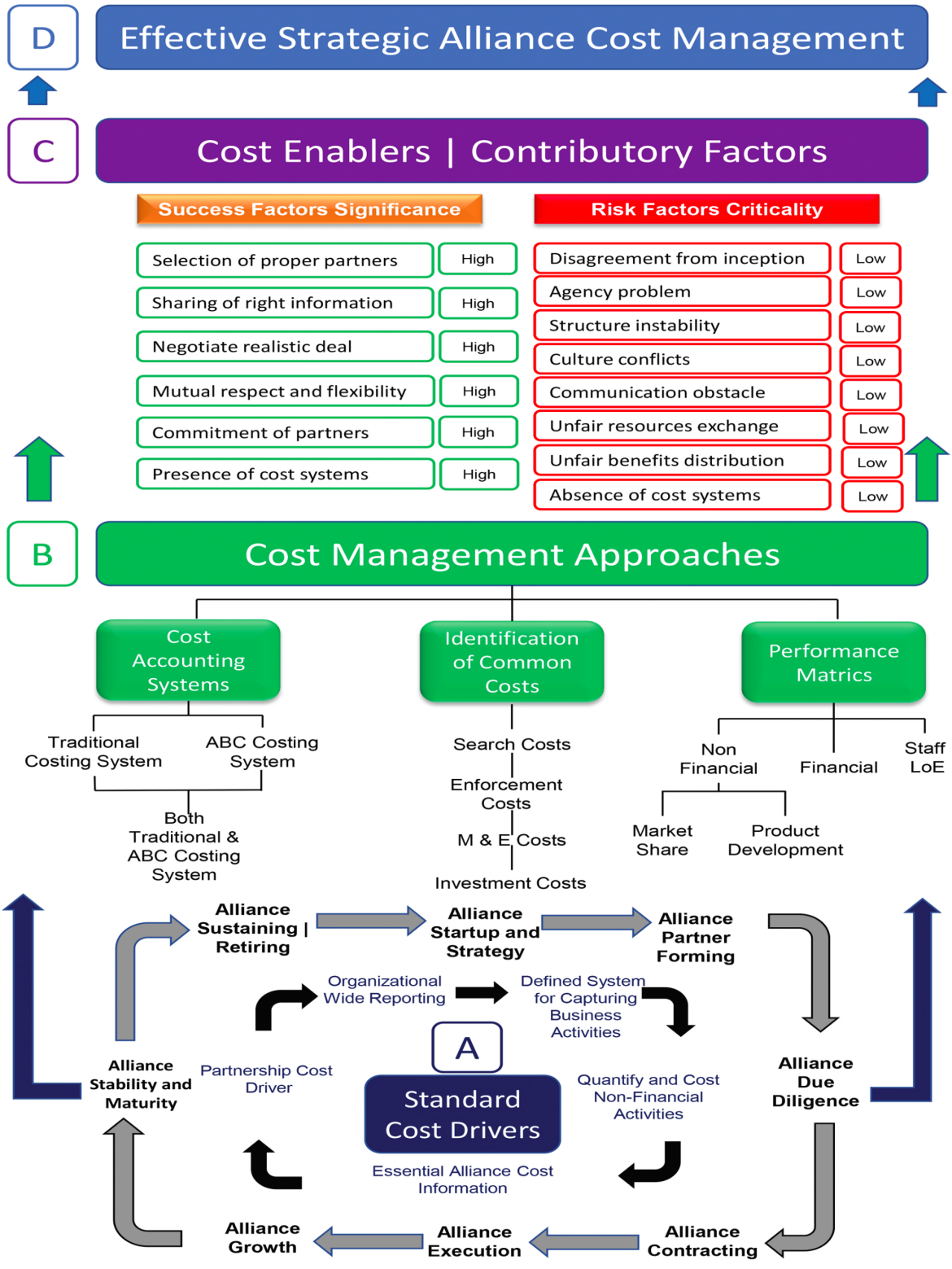

Figure 5. 1: Proposed enterprise cost management conceptual model for strategic alliances

The proposed conceptual model is expected to improve cost management approaches among strategic partners and thereby increase the success rate of strategic alliances. This is so because the conceptual cost management model is more comprehensive and holistic and considers success and risk factors pertinent in the telecom sector. The following section explains the different components of the proposed ECM conceptual model for strategic alliances.

5.4 Operationalisation and Structure of the ECM Conceptual Model

Four components emerged to produce the ECM conceptual model for strategic alliances. Symbols representing these components are A, B and C, which give outcome D, as shown in Figure 5.1:

Component A: This part of the conceptual model represents the emerging issues that are also represented and thoroughly discussed in section 4.91 of chapter 4. Strategic alliance cycles consist of integrating eight alliance cycles that most firms use. These are; alliance start-up and strategy, alliance partner forming, alliance due diligence, alliance contracting, alliance execution, alliance growth, alliance stability & maturity and alliance sustaining and/or retiring.

Other sub-components include defining business activities, quantifying and costing non-financial activities, essential alliance cost information, partnership cost driver, and organisational-wide reporting. This makes it easy for the conceptual model to be comprehensive and applicable to all strategic alliances/or projects in determining the standard cost drivers. One of the themes that came out from the key informants was that identifying standard strategic alliance costs enhances the effective management of costs in strategic alliances and leads to the successful implementation of strategic alliance costs. It emerged that a comprehensive cost accounting system in a strategic alliance arrangement is critical to effective cost management, which would contribute to the success of a strategic alliance. In agreement with the literature, Hughes (2002) argued that alliance metrics must be created and used in a context that crosses external and internal organisational boundaries. From the standpoint of these findings, this reality needs to be understood and managed if companies successfully implement metrics on individual alliances across their alliance portfolio.

Component B: The study revealed the importance of cost approaches that quantify financial and non-financial costs. Most respondents (90%) stated that it follows performance metrics were an essential component of any model for managing costs in strategic alliances if the partnership was to enhance an alliance's effective cost management and success. All linkages of emerged patterns

were discussed in section 4.6.4 of chapter 4. The proposed conceptual model was corroborated and substantiated by the work of Budding, Faber, and Schoute (2021), who argued that accounting information becomes significant under uncertain situations. Non-financial information with accrual-based cost information may resort to such information becoming more plausible in medium and long-term perspectives amid severe financial constraints.

Furthermore, Johnsen (2012) contended that, theoretically, managers pay more attention to poor-performing projects than to well-performing ones under financial constraints. This part of the conceptual model represents the cost management approach issues that are also represented and thoroughly discussed in section 4.9.2 of chapter 4. These include costing and cost accounting systems, identifying standard costs (search, enforcement, M & E and investment costs), performance metrics that consider financial and non-financial cost measurement, and Staff Level of Efforts (LoE) and performance metrics.

A comprehensive cost accounting system in a strategic alliance arrangement is critical to effective cost management, contributing to a success of a strategic alliance. The alliance managers should identify cost approaches for each strategic alliance formed throughout the implementation and all applicable phases of the life cycle of an alliance.

Component C: This part shows how success and risk factors throughout the strategic alliance life cycle could contribute to effective cost management in a strategic alliance. These are represented and thoroughly discussed in section 4.9.3 of chapter 4. The success factors that must be present include selecting proper partners, sharing the correct information, negotiating a real deal, considering both benefits and risks, mutual respect, flexibility and commitment of partners and presence of cost systems.

Risk factors that must be mitigated are strategic disagreement from inception, agency problems, structure instability, culture conflicts, communication obstacle, unfair resource exchange, unfair benefits distribution and absence of cost systems. The success and risk factors act as cost enablers for an effective enterprise cost management model represented as an outcome in component D. The findings of the majority of the respondents (97%) confirmed that benefits would accrue for enterprises that tend to use the cost management conceptual model. The major themes that emerged were success factors, risk factors and results performance measurement of an alliance. In relating

this with other research studies on strategic alliances, there are theories posited addressing why firms enter closer business relationships. This includes efficiency creation through economies of scale specialisation and/or rationalisation (Lorange and Roos, 1993; Gugler, 1992), maximise the use of facilities (Lindsay, 1989), complementary capabilities (Henricks, 1991), growth and improvement 1989), spreading financial risk and sharing costs (Spekman and Sawhney, 1990), each predicting when strategic alliances will be formed.

Component D: The research findings in chapter 4 showed that strategic alliances struggle with different challenges of survival attributed to poor cost management. A recommendation was made for an adequate cost management conceptual model that helps strategic alliance managers manage costs. The result of integrating components A-C is an effective cost management conceptual model with clear benefits and performance measures to track the progress and status of a strategic alliance.

These benefits include but are not limited to cost-sharing, cost reduction and promotion of a short-life product cycle. The findings have shown that all enterprises with a business system for capturing business and cost activities, such as a cost accounting system, systematic activities schedules and produced essential information for managing strategic alliance and transparent performance metrics resulted in high containment of cost and high profitability. Therefore, for a strategic alliance to be profitable adequate business systems must be in place.

Since the conceptual model has been developed and adhered to the criterion presented in Table 5.2, the next step is to discuss how the proposed ECM conceptual model works or can be applied in practice. The expected contribution from this study, to both theory and practice, is vast and immense in scope.

5.5 Application of the Proposed ECM Conceptual Model in Practice

The study is of practical importance as it would help strategic alliances to be more effective and successful. The research provides valuable insights for practitioners and managers in implementing value-creating strategic alliances in dynamic competitive environments in the following areas:

i. The alliance enterprise cost conceptual model will allow alliance managers to consider the right cost decisions when managing their strategic alliance in turbulent environments. This, in turn, will allow them to take corrective actions during the implementation phase of an alliance.

ii. With a solid alliance conceptual model in place, one reduces risk, holds stakeholders accountable, sets clear expectations, creates a platform for decision-making and improves the overall chances of success of a strategic alliance.

iii. The study provides clear pointers to government, executive management, alliance or project managers on what needs to be done to track costs in a strategic alliance, as shown in Figure 5.2. Contributions toward understanding success and risk factors in strategic alliances are provided in the literature review in Chapter 2 and Research Findings in Chapter 4.

iv. It provides a reference for various organisations for developing alliance agreements and long-term corporate performance indicators that incorporate financial and non-financial cost considerations.

v. It will assist organisations in developing cost support structure and aids in information sharing through organisation units and reporting templates. Therefore, implementing a cost management structure for alliances can help a business keep its overall budget under control and enhance corporate performance.

vi. Another practical contribution is that this conceptual cost management model can be used as a standard template in the supply chain cost management and optimisation within the telecom's strategic alliances.

5.6 Original Contribution to Knowledge

This study provides theoretical addition to the body of knowledge in the following:

i. When analysing cost with each business model component, Sundelin (2009) stressed the importance of identifying underlying cost drivers, relationships between different costs and the behaviour in terms of size, growth and volatility concerning the level of activities. To date, no study has attempted to show this relationship. In this study, the researcher has closed this gap in answering this important question and contributes to the body of

knowledge on how the business model can respond to change and how predictable that could be (Figure 4. 13).

ii. This study records a deviation in literature in the conceptualisation of strategic alliance success factors in the existing models by Ahouse (2013), Figure 2.7 Steinhilber (2008); Table 2.3, Segil (2005), Figure 2.5; Hwang and Park (2007), Adams (2011), Figure 2.6; and Doz (1996); Figure 2.8 that postulates that for the alliance to be successful, this should be supported by a business case and executive sponsorship, alliance management and governance. The developed conceptual model does capture the business case and executive sponsorship, alliance management, and governance and including financial, legal, and human resource considerations.

iii. This is one of the first empirical research on a strategic alliance enterprise cost management conceptual model that traces costs from inception to retirement or sustaining an alliance to the researcher's knowledge. The study resulted in developing an enterprise cost management conceptual model (Figure 5.1) that is easy to understand and visualise and can be validated by future researchers in similar set-ups.

iv. The conceptual model added to the corpus of knowledge, as corroborated and substantiated by what Hicks *et al.* (2000) established, is in stark contrast to the extensive literature on high-volume sectors, particularly the automotive sector, where there is limited research on cost systems in strategic alliances in telecoms. Both theory and empirical findings contribute to our understanding of cost systems in strategic telecom alliances.

v. It provides a conceptual mindset for setting up guidelines that identify cost drivers in the alliance life cycle, determining the nature of different costs and cost assumptions in managing the business performance of strategic alliances. This revelation of these three concepts enables recognizing what metrics are most desirable to gain the benefits of strategic alliances through effective management of costs. This interplay and insight are limited in the current literature, which this study fulfils.

vi. One of the significant contributions of the research study is that it has brought about a consensus that corporate organisations engaged in a strategic alliance can significantly improve their ability to facilitate desired business performance, including cost efficiency, maximization of resource utilisation and increased business profitability in strategic

alliances. The researcher believes that this needs to be further interrogated by scholars and other sections of society.

vii. Hopefully, this research will significantly value current literature and future research on optimising costs in strategic alliances. The thesis provides a novel perspective from which to view cost drivers that give rise to costs among alliance partners and approaches that effectively structure shared alliance costs equitably. As this is currently unavailable in the literature, it provides a new opportunity for alliance cost configuration and equitable distribution.

5.7 Limitations of the Study

This research is not unique from other studies that have limitations. Firstly, the study's sampling procedure and the sample size was a limitation. While purposeful and theoretical sampling were relevant to this study, the sample size of 53 could have been increased. This was impossible due to reasons that were out of the researcher's control, and in this case, the size of the telecom sector in Zambia is so tiny (sampling scheme in Table 3.1). In advocating for the sample size determination, Salkind (2010) argued that the sample size could not be determined before the study commences because of theoretical sampling. Commenting further on sample size Charmaz (2016) stimulates that *"A very small sample can produce an in-depth interview study of lasting significance"*. The following were the limitation of the study:

i. In as much as literature on the positive outcomes of strategic alliances suffices, Dyer, Kale and Singh (2001), Drucker (1996), and Glover and Wasserman (2003) have argued that the price of failure of businesses is high. The lack of previous empirical research studies on the topic of enterprise cost management approaches presented a challenge. Global and the national data set was expensive and could only be readily sourced from Thomson Reuters.

ii. Unfortunately, the research data that were available up until 2020. It would be interesting to see whether the next wave of data post the growth of FinTech growth beyond 2020 would yield the same results as this thesis. Potentially, future researchers could exploit the extra data to look at the growth of telecoms with the growth of FinTech in the strategic alliance, which has not been investigated yet.

iii. A concurrent embedder mixed-methods study design was used to collect, analyse and interpret quantitative and qualitative data. The designs required that data needs be

transformed so that both types of data can be integrated during the analysis, which can be difficult. Inequality between different methods may result in unequal evidence within the study, which can be detrimental when interpreting the results.

5.8 Chapter Summary

The main objective of this chapter was to propose an Enterprise Cost Management Conceptual Model for managing costs in strategic alliances to enhance corporate performance. The research questions focused on three key themes: routine activities that give rise to cost, cost approaches and applicability of a cost management conceptual model in real-life projects. All these questions were successfully answered in chapter 4. The result was modelled in Figure 5.1 in this chapter. The following chapter will give conclusions, recommendations and future research on the entire study.

CHAPTER 6 - RESEARCH CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

The purpose of this chapter is to provide a summary of the study's findings, draw conclusions in respect of the research questions and propositions of this study and submit recommendations, including areas for future research. Section 6.2 concludes concerning the research questions and corresponding propositions of the study and indicates the extent to which each question of a proposition was answered or proved/disproved. Section 6.3 discusses recommendations, while section 6.4 focuses on the areas of future research.

6.2 Conclusions

The main objective of the study was to develop an enterprise cost management conceptual model that alliance managers can use in managing costs in strategic alliances so that they would assist to improve corporate performance and strategic alliance success. This was achieved through the statistical analysis that was conducted to answer and prove or disprove research questions and propositions respectively. The respective research questions and propositions for the study were as follows:

Research Questions:

RQ_1: What main activities contribute to costs between strategic alliance partners?

RQ_2: How should costs in strategic alliances be measured?

RQ_3: What is the practical application of an enterprise cost conceptual model in a real-life project?

Research Propositions:

P_1: There are no specific main standard activities that give rise to costs between strategic alliance partners;

P_2: There are no specific approaches that are required to measure costs in strategic alliances;

P_3: The lesser application of the appropriate enterprise cost conceptual model in a real-life project, the lower its corporate performance.

The findings revealed that, thirteen key influencing variables were identified and statistically analyzed in research questions one and two as presented in section 4.75 and validated with the practical implication on cost effectiveness with nine variables as analyzed in Figure 4.31. This subsequently provided foundation for the development of the ECM conceptual model in Figure 5.1. Applicably, Figure 5.1 in chapter 5 shows the conceptual model that was developed in this study. It consists of four components namely, the standard cost drivers, cost management approaches, cost enablers/contributory factors and cost effectiveness metric which were identified using statistical analysis.

This study has shown sufficient literature that inter-firm relationships introduce new challenges for management accounting with the rise in strategic alliances. One challenge is providing information for coordinating and optimising activities across firms in strategic alliances. This research narrows this gap in the literature by proposing a cost management model that can overcome such challenges. The proposed cost model can act as a mechanism for partners to share information in an alliance to harmonise and optimise collaborative activities.

6.2.1 Development of the ECM conceptual model

The main objective of this study was to develop a conceptual cost management model that would improve the cost management approaches among strategic partners for telecoms. The conceptual model was developed considering the Telecom sector and is shown in Figure 5.1. The findings reduce the gap in the current literature on effective cost management approaches that alliance managers can use that ensure project or alliance success during the planning, development and execution of a strategic alliance. This was achieved through answering the research questions. The findings in chapter 4 thoroughly answered the three questions, and corresponding research propositions of the study and a summary is provided in sections 4.3 to 4.8. For each research question, the study found:

6.2.2 Standard cost drivers for strategic alliances

The first research question focused on identifying specific main standard activities that give rise to costs, investigating strategic alliance life cycles, and determining the cost drivers in a strategic alliance life/activity cycle. The research question asked the following:

What main standard activities contribute to costs between strategic alliance partners?

This research question focused on identifying specific main standard activities that give rise to costs, investigating strategic alliance life cycles, and determining the cost drivers in a strategic alliance life/activity cycle. In answering research question one, the results revealed (i) that main standing activities involved the integration of eight strategic alliance cycles that most firms were using, (ii) the presence of defined systems for capturing business activities, (iii) the ability to quantify, (iv) cost non-financial activities (production of essential alliance cost information), (v) partnership cost drivers by both or all partners, and (vi) the necessity for organisational-wide reporting.

6.2.3 Cost approaches for strategic alliances

The second research question asked?

How should costs in strategic alliances be measured?

This research question focused on processes, systems and decisions of capturing cost in alliances. The results are also shown in Figure 4.26. The components that emerged were a comprehensive cost accounting system, using both ABC and traditional cost accounting systems to identify standard costs and capture financial and non-financial costs in managing strategic alliances. Staff costs were essential to cost, and having a robust performance management system with quantified metrics is essential for ensuring the successful execution of a strategic alliance.

6.2.4 Practical application of the ECM model

The third research question asked?

What is the practical application of an enterprise cost conceptual model in a real-life project?

The third objective was to operationalise the conceptual model, which was done by the two research instruments used in this study; the questionnaire and the interview guide. Based on the

responses to questions, the following patterns have emerged; benefits of strategic alliances. It has emerged that organisations have different motives to benefit from a strategic alliance arrangement. For a strategic alliance to be successful, there must be presence of success factors and risk factors. All enterprises with a business system for capturing business and cost activities such as cost accounting systems, systematic activities schedules, and providing essential information for managing strategic alliance and transparent performance metrics resulted in high containment of cost and high profitability. Therefore, for a strategic alliance to be profitable adequate business systems must be in place. The proposition also shows the operationalisation in Figure 4.31.

6.3 Recommendations

Recommendations consider both the literature review and findings of this study as follows:

6.3.1 Cost drivers' decisions support system

The research provides valuable insights for practitioners and managers in implementing value-creating strategies in dynamic competitive environments. Alliance managers can use component A of the conceptual model that identifies the routine activities in a typical alliance life to manage their projects transparently to all alliance partners. The conceptual model guides critical cost drivers that are imperative or not, allowing alliance managers to know which cost drivers to focus on. The conceptual model will thus enable the right decisions and can be used as a guide by alliance managers.

6.3.2 Conversion into a useful software program

A model usually represents reality for a given purpose. Therefore, Kalaba's ECM conceptual model be converted into a useful software program to assist practitioners and managers in effectively managing costs in strategic alliances.

6.3.3 Use for due diligence checklist

It is further recommended that using the ECM conceptual model elucidated in Figure 5.1 in chapter 6, strategic alliance managers can develop a due diligence checklist to conclude partnership agreements. Using a due diligence checklist based on this conceptual model allows each partner to assess all financial and non-financial aspects of a potential strategic alliance to determine the anticipated benefits, liabilities, risks and opportunities.

6.3.4 Adaptability to other sectors and countries

This conceptual model could be applied to other sectors such as banking, ICT, and manufacturing with many strategic alliances. The study can be adapted by understanding the characters of the other sectors in the Zambian context and other telecom sector organisations in developing countries by customizing the country-specific issues in section A and conducting a situational analysis to understand the desired country.

6.4 Further Research

Based on the conclusions and recommendations of the study, the following could be considered for further research:

i. Potentially, future researchers could exploit the extra data to look at telecoms with the emergence of FinTech in the strategic alliance, which to date has not been investigated yet;
ii. The study only focused on the strategic alliances within the telecom's four sector pillars, i.e. (telephone fixed-line, mobile telephone, international gateway and internet services) and did not cover any other sectors. Therefore, this model can be adapted by looking at strategic alliances of telecoms with other sectors. Characteristics of the other sector can be studied and adapted to this model.
iii. Further, this study focused on strategic alliances partnership and largely excluded information on other partnerships such as joint ventures. Investigations into cost approaches in the joint venture could be explored.

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APPENDICES

Appendix A: Semi-structured In-depth Interview Guide

Research survey on *"The Enterprise Cost Management Conceptual Model for Strategic Alliances in the Telecommunications Industry – the case of Zambia"*

Semi-structured In-depth Interview Guide

David Kalaba

(Revised 22 January 2016)

Introductory Session Agenda

1. Introducing the researcher, the research problem;
2. Addressing any contractual, conduct and ethical concerns;
3. Discussion on the research process, dealing with any issues and concerns raised;
4. Introducing the research subject and its benefits for the research fraternity and participant organisation;
5. Soliciting archival data as necessary, discussion and confirmation of publicly available data;
6. Agreement on team's liaison person "the go-to person" for clarifications and other informational requirements;
7. Session Closure.

The following is an interview guide that will be used with key executive and management staff members regarding the strategic alliances cost management approaches in each enterprise.

Introduction/Key Component	**Introductions**
Thank you Your name Purpose Confidentiality Duration How interview will be conducted Opportunity for questions Signature of consent	I want to thank you for taking the time to meet with me today. My name is _____ and I would like to talk to you about your experiences participating in the strategic Alliances. Specifically, we are investigating the appropriate enterprise cost conceptual approaches that alliance managers use in managing costs in strategic alliances. This will help us to capture lessons that can be used in future interventions. The interview should take less than 1 hour. I will be recording the session because I don't want to miss any of your comments. Although I will be taking some notes during the session, I can't possibly write fast enough to get it all down. Because we're recording, please be sure to speak up so that we don't miss your comments. All responses will be kept confidential. This means that your interview responses will only be shared with research team members and we will ensure that any information we include in our report does not identify you as the respondent. Remember, you don't have to talk about anything you don't want to and you may end the interview at any time. Are there any questions about what I have just explained? Are you willing to participate in this interview? _____ _____ _____ Interviewee Interviewer Date

Semi structured in-depth interviews will be used to obtain information as follows
NOTE: *For the purpose of this research, a strategic alliance is a relationship between two or more parties to pursue a set of agreed upon goals or to meet a business need that is mutually beneficial while remaining independent organisations*

SECTION A: DEMOGRAPHIC CHARACTERISTICS

1. Name:…….
2. What is the highest level of your qualification?
3. How many years have you worked in this organisation?
4. What is your position in this organisation?
5. Is this company engaged in strategic alliances? How so/with whom?

SECTION B: What are the main standard activities that contribute to costs between strategic alliance partners?

6. Why were these strategic alliances formed?
7. How do you typically make strategic decisions in your organisation regarding which alliance to enter and with whom?
8. Who runs the alliance and how do you allocate employees to the alliances? (Probe: What role do you play?
9. What typical phases or cycles does your alliances go through?
10. What are critical and standard activities performed in strategic alliances by each partner?
11. What drives costs in your strategic alliances?

SECTION C: How should costs in strategic alliances be measured?

12. What system or mechanism do you have in place to track progress between you and your partners?
13. Do you have a system of capturing cost in your alliances/partnerships? If so, which cost accounting system is a mostly applied in strategic alliance?
14. To what extent do these cost systems capture both financial and non-financial costs? (Probe for: examples of non financial cost relevant to this organisation)
15. Is this system effective? Could anything be improved about the current way to measure costs in strategic alliances?
16. What barriers and challenges have you encountered in trying to incorporate all costs related to strategic alliances? (Probe: How have your resolved them?)

SECTION D: What is the practical application of an enterprise cost conceptual model in a real life alliance project?

17. Does the current strategy address the strategic alliance cost issues? If yes, how so? If no, should it?
18. What performance measures do you use to gauge success of a strategic alliance?
19. What features would you look for in an appropriate enterprise cost conceptual model for alliance managers to use in managing costs in strategic alliances?
20. What benefits would organisations that tend to use the cost management conceptual model enjoy?
21. How ease would it be to incorporate enterprise cost management approaches into your business? What factors would facilitate the easiness?

Appendix B: Semi Structured Questionnaire

Research survey on *"The Enterprise Cost Management Conceptual Model for Strategic Alliances in the Telecommunications Industry – the case of Zambia"*

Semi Structured Questionnaire

David Kalaba

(Revised 02 April 2016)

Introduction

Dear Respondents

You are invited to participate in a research study titled "*An Enterprise Cost Management Conceptual Model for Strategic Alliances in the Telecommunications Sector – the case of Zambia."* The purpose of this study is to investigate appropriate enterprise cost conceptual approaches that alliance managers can use in managing costs in strategic alliances

In this study, you will be asked to complete a questionnaire. Your participation in this study is voluntary and confidential. The Graduate School of Business Leadership of University of South Africa (UNISA) Research Ethics Review Committee (RERC) has approved this survey. There are no risks associated with participating in this study. The survey collects no identifying information of any respondent. All of the response in the survey will be recorded anonymously.

If you have any questions regarding the survey or this research project in general, please contact Mr. David Kalaba on dkalaba@bu.edu, mobile phone +260 971 234 146 or the promoter/supervisor Prof Pantaleo D Rwelamila, Rwelapmd@unisa.ac.za. If you have any questions concerning your rights as a research participant, please contact the RERC of UNISA University at +27 11 652 0372.

By completing and submitting this survey, you are indicating your consent to participate in the study. Your participation is appreciated.

David Kalaba
Doctoral Candidate Student # 72526467
Graduate School of Business Leadership
University of South Africa

NOTE: *For the purpose of this research, a strategic alliance is a relationship between two or more parties to pursue a set of agreed upon goals or to meet a business need that is mutually beneficial while remaining independent organisations*

SECTION A: STANDARD ACTIVITIES THAT GIVE RISE TO COST
In this section, please choose by ticking (√) from a range of 1 to 5, (1) Strongly Disagree; (2) Disagree; (3) Moderately Agree (4) Agree and (5) Strongly Agree.

Cycle phases	Strongly disagree (1)	Disagree (2)	Moderately agree (3)	Agree (4)	Strongly agree (5)
1. Can your strategic alliances cycles be categorized in any of the following phases?					
1.1 Alliance start up & strategy	☐	☐	☐	☐	☐
1.2 Alliance partner forming	☐	☐	☐	☐	☐
1.3 Alliance due diligence	☐	☐	☐	☐	☐
1.4 Alliance contracting	☐	☐	☐	☐	☐
1.5 Alliance execution	☐	☐	☐	☐	☐
1.6 Alliance growth	☐	☐	☐	☐	☐
1.7 Alliance stability & maturity	☐	☐	☐	☐	☐
1.8 Alliance sustaining/retiring	☐	☐	☐	☐	☐
2. We have a system of capturing all business activities related to strategic alliance	☐	☐	☐	☐	☐
3. Non financial activities are costed and quantified in all our alliances	☐	☐	☐	☐	☐

4. For questions 4.1 to 4.9 please tick (√) the option that best describes your strategic alliance situation. (Use the scale: 0: Information is never used; 1: For very few projects; 2: For several projects and 3: For all projects;).
   Do you produce the following information whenever you are in a strategic alliance?

	0	**1**	**2**	**3**
4.1 Resource (material, plant, Labour) schedules				
4.2 Resource (material, plant and Labour) budgets				
4.3 Activity or task break down cost or budget				
4.4 Schedule of activities				
4.5 Project day works schedule				
4.6 Project profit and loss account				
4.7 Project cash flow				
4.8 Labour and plant time sheets				
4.9 Price inflation price adjustment index				

5. Who drives Costs in your strategic alliances?

☐ 1. Your organisation ☐ 2. Your partner ☐ 3. Consultant ☐ 4. Other (please specify ……..

6. For questions 6.1 to 6.8, please tick (√) the option that best describes your situation in your interaction with your strategic alliances partners. (Use the scale 0: Information is never produced; 1: Process Category (PC) levels; 2: Only at Management Process (MP) level; 3: Only at Business Process (BP) level; 4:All levels)
   At what level is the following information produced during the strategic alliance life cycle?

	0	**1**	**2**	**3**	**4**
6.1 Alliance start up/ strategy					
6.2 Alliance partner forming					
6.3 Alliance Due Diligence					
6. 4Alliance contracting					
6.5 Alliance Execution					
6.6 Alliance Growth					
6.7 Alliance Stability & Maturity					
6.8 Alliance Sustaining/Retiring					

SECTION B: APPROACHES FOR COST MEASUREMENT

In this section please choose from a range of 1 to 5, (1) Strongly Disagree; (2) Disagree; (3) Moderately Agree; (4) Agree and (5) Strongly Agree).

7. We evaluate costs using one of cost accounting systems	Strongly disagree (1)	Disagree (2)	Moderately agree (3)	Agree (4)	Strongly agree (5)
	☐	☐	☐	☐	☐
8. Enterprises in your industry apply enterprise cost management conceptual model	Strongly disagree (1)	Disagree (2)	Moderately agree (3)	Agree (4)	Strongly agree (5)
	☐	☐	☐	☐	☐
9. How satisfied are you with your system to capture cost information in strategic alliances?	Not Satisfied (1)	Fairly Satisfied (2)	Satisfied (3)	Very Satisfied (4)	Fully Satisfied (5)
	☐	☐	☐	☐	☐
10. What costs are common in your strategic alliance/s?	Strongly disagree (1)	Disagree (2)	Moderately agree (3)	Agree (4)	Strongly agree (5)
10.1 Search costs	☐	☐	☐	☐	☐
10.2 Costs of preparing, executing & monitoring contracts	☐	☐	☐	☐	☐
10.3 Enforcement	☐	☐	☐	☐	☐
10.4 Loss of specific investments	☐	☐	☐	☐	☐
11. Which cost accounting system is a mostly applied in your strategic alliance/s?	Never (1)	Rare (2)	Sometimes (3)	Usually (4)	Always (5)
11.1Tradition cost accounting system	☐	☐	☐	☐	☐
11.2Activity Based Costing (ABC) system	☐	☐	☐	☐	☐
11.3Both ABC and tradition cost accounting system	☐	☐	☐	☐	☐
11.4 Other, Please specify					
12. What ideal cost management tool should alliance managers use in managing costs?	Strongly disagree (1)	Disagree (2)	Moderately agree (3)	Agree (4)	Strongly agree (5)
12.1 A model that captures financial costs only	☐	☐	☐	☐	☐
12.2 A model that captures both financial & non financial costs	☐	☐	☐	☐	☐

13. How much effort does your alliance team members devote to the alliance project? Please tick all that apply.
    1. 0% to 25% [ ]
    2. 25% to 50% [ ]

3. 50% to 75% [ ]
4. 75% to 100% [ ]

14. Do you use any of the following performance metrics in your enterprise?

	Never (1)	Rare (2)	Sometimes (3)	Usually (4)	Always (5)
Financial performance					
a) Average Revenue Per User (ARPU)	☐	☐	☐	☐	☐
b) Annual percentage change in sales	☐	☐	☐	☐	☐
c) Annual average of ROS	☐	☐	☐	☐	☐
d) Annual average of ROA	☐	☐	☐	☐	☐
e) Annual average of Revenues/Costs ratio	☐	☐	☐	☐	☐
Time to market (*This based on incremental market share over multiples years in terms of customer acquisition)*					
f) *Incremental market share*	☐	☐	☐	☐	☐
Product Innovation					
g) The number of new products introduced in a market	☐	☐	☐	☐	☐

15. Are there any other performance metrics that you use in your enterprise?
1=Yes [ ]
2=No ***If No, skip to Qn17*** [ ]

16. If yes to Qn 15, please list new other performance metrics that you use in your enterprise
……
……

17. Have you introduced new products on the market attributable to the strategic alliances in the last four years?
1=Yes [ ]
2=No ***If No, skip to Qn19*** [ ]

18. Please list new products introduced on the market attributable to the strategic alliances in the last four years. ***Please indicate your responses in the table below***:

Year	**Product**		Please add here if the space provide opposite is not sufficient
2015	1		
	2		
2014	1		
	2		
2013	1		
	2		
2012	1		

	2		

SECTION C: PRACTICAL APPLICATION TO REAL LIFE ALLIANCE PROJECT

19.	What benefits would enterprises or organisations such as yours derive as a result of cost management conceptual model. (0 = No Benefit, 1= Low Benefit, 2 = Moderate Benefit, 3 = High Benefits, 4 = Very High Benefits)	0 1 2 3 4	(Doesn't apply)
19.1	Cost sharing	☐ ☐ ☐ ☐ ☐	☐
19.2	Reducing costs	☐ ☐ ☐ ☐ ☐	☐
19.3	Shortening product development times	☐ ☐ ☐ ☐ ☐	☐
19.4	Managing risks	☐ ☐ ☐ ☐ ☐	☐
19.5	Other, please specify		

20. Rank the following keys factors in order of contributing to creating successful strategic alliances. (Start from 0 = Not Important, 1= Slightly Important, 2 Important, 3 Fairly Important, 4 = Very Important)

Factors contributing to Strategic Alliance Success	**Rank (0…. 4)**
20.1 Select the proper partners for the intended goals	
20. 2 Share the right information	
20.3 Negotiate a deal that includes risk and benefit analysis (not necessarily equal) for all sides	
20.4 Come to a realistic agreement on the time to market and corporate expectations (Time to market is *based on incremental market share over multiples years in terms of customer acquisition)*	
20.5 Mutual, flexible commitment on what's appropriate to change, measure and share within each partner's culture	
20.6 Presence of cost systems between partners	

21. Rank the following keys factors in order of contribution to failure strategic alliances. (Start from 0 = Not Critical, 1 Slightly Critical, 2 = Critical, 3 = Fairly Critical & 4 =Very Critical)

Factors contributing to Strategic Alliance failure	**Rank (1…. 4)**
21.1 Strategic disagreement	
21.2 Agency problem	
21.3 Structure instability	
21.4 Culture conflict	
21.5 Communication obstacle	
21.6 Interfirm competition	
21. 7 Contract Incompleteness	
21.8 Unfair resource exchange	
21.9 Unfair benefits distribution	
21.10 Absence of cost systems between partners	

22. Describe the level of the financial performance using profitability of your strategic alliances in the last four years?

	1. Highly increased		2. Fairly increased		3. Remained same		4. Declined		5. Highly Declined

23. Describe the nature of your success rate at containing cost with your strategic alliances project partners

	1. Always		2. Sometimes		3. Rarely		4. Never

24. Is there any change you would make about the way the enterprise is addressing cost management in strategic alliances?	Not Sure (1)	Definitely Not (2)	Probably Not (3)	Probably (4)	Definitely (5)
	☐	☐	☐	☐	☐

25. If you chose either 4 or 5 in question 24 please state the change you would propose in the way the enterprise is addressing cost management in strategic alliances

……
……
……
……

SECTION D: OTHER COMMENT
Please include make comments for each of the issues below:

26. What are the main standard activities that contribute to costs between strategic alliance partners?

……
……
……
……

27. How should costs in strategic alliances be measured?

……
……
……
……

28. What is the practical application of an enterprise cost conceptual model in a real life alliance project?

……
……
……
……

SECTION E: DEMOGRAPHIC CHARACTERISTICS
(Tick (√) or Circle the most appropriate answer)

29. What is your age?.....

30. Please indicate your gender
    1. Male [ ]
    2. Female [ ]

31. What is the highest level of your qualification?
    1. Grade 12 Certificate/GCE [ ]
    2. College Certificate/Diploma [ ]
    3. Undergraduate Degree [ ]
    4. Post graduate – [ ]

32. How many years have you worked in this enterprise?
    1. 1 to 5 years [ ]
    2. 6 to 10 years [ ]
    3. 11 to 15 years [ ]
    4. 16 to 20 years [ ]
    5. 21 years and above [ ]

33. What is your occupation?
    1. Accountant/Finance professional [ ]
    2. Human Resource professional [ ]
    3. Engineer [ ]
    4. Lawyer [ ]
    5. Banker [ ]
    6. Marketing professional [ ]
    7. Other, please specify …….

34. Which department do you operate from?
    1. Accounting and Finance [ ]
    2. Human Resource [ ]
    3. Information Communication Technology [ ]
    4. Legal [ ]
    5. Marketing [ ]
    6. Operations [ ]
    7. Other, please specify …….

35. How many alliances has your enterprise been involved in?
    1. Non [ ]
    2. 1 to 5 [ ]
    3. 5 to 10 [ ]
    4. 10 to 15 [ ]
    5. More than 15 [ ]

36. What role do you play in the strategic Alliance? (Tick all that applies)

1. Negotiator [ ]
2. Board Member [ ]
3. Management of the strategic alliance [ ]
4. Representative of your company [ ]
5. Other, please state…….

37. Which type of organisation(s) do you form the alliance with? (Tick all that applies)

1. Telecom company's [ ]
2. Banks [ ]
3. Utilities Company (Water and Electricity) [ ]
4. Media companies [ ]
5. Super markets [ ]
6. Marketing companies [ ]
7. Other, please specify …….

38. Choose from the list the type of Alliance your enterprise is engaged in:
(Tick all that applies)

1. Joint Marketing/Promotion/Distribution [ ]
2. Production [ ]
3. Design collabouration [ ]
4. Technology Licensing [ ]
5. Research and Development [ ]
6. Other, please specify …….

39. What principal activity is your enterprise involved in?

1. Fixed line [ ]
2. International gateway [ ]
3. Mobile telephony [ ]
4. Internet markets [ ]
5. Other, please specify ……...

Thank you very much for completing this questionnaire

Appendix C: Informed Consent

Graduate School of Business Leadership, University of South Africa PO Box 392 Unisa 0003 South Africa
Cnr Smuts and First Avenue Midrand 1685 Tel: +27 11 652 0000 Fax: +27 11 652 0299
Email: sbl@unisa.ac.za Website: www.sblunisa.ac.za

Informed consent for participation in an academic research project

AN ENTERPRISE COST MANAGEMENT CONCEPTUAL MODEL STRATEGIC ALLIANCES IN THE TELECOMMUNICATION SECTOR – THE CASE OF ZAMBIA

Dear Respondent

You are herewith invited to participate in an academic research study conducted by David Kalaba, a student in the Doctor of Business Leadership at UNISA's Graduate School of Business Leadership (SBL).

The purpose of the study is to explore the enterprise cost conceptual model that makes a strategic alliance successful that the current body of knowledge fails to provide a comprehensive answer to. This study, therefore, seeks to fill this theoretical and empirical gap by developing an enterprise cost management conceptual model for managing costs in strategic alliances.

All your answers will be treated as confidential, and you will not be identified in any of the research reports emanating from this research.

Your participation in this study is very important to us. You may however choose not to participate and you may also withdraw from the study at any time without any negative consequences.

Please answer the questions in the attached questionnaire as completely and honestly as possible. This should not take more than 30-40 minutes of your time.

The results of the study will be used for academic purposes only and may be published in an academic journal. We will provide you with a summary of our findings on request.

Please contact my supervisor, Prof Pantaleo D Rwelamila, Rwelapmd@unisa.ac.za if you have any questions or comments regarding the study. Please sign below to indicate your willingness to participate in the study.

Yours sincerely

David Kalaba

I, ... herewith give my consent to participate in the study. I have read the letter and understand my rights with regard to participating in the research.

_____ _____

Respondent's signature **Date**

Appendix D: Study Permission Approval: ISAT Africa Zambia Limited

Graduate School of Business Leadership, University of South Africa PO Box 392 Unisa 0003 South Africa
Cnr Smuts and First Avenue Midrand 1685 Tel: +27 11 652 0000 Fax: +27 11 652 0299
Email: sbl@unisa.ac.za Website: www.sblunisa.ac.za

REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT ISAT

AN ENTERPRISE COST MANAGEMENT CONCEPTUAL MODEL STRATEGIC ALLIANCES IN THE TELECOMMUNICATION SECTOR – THE CASE OF ZAMBIA

Mr. Matt Madziro
Chief Executive Officer
ISAT Africa Zambia Limited.
7th Floor, Godfrey House, P. O. Box 30248
Lusaka, Zambia, Phone Tel: +260-(21)-123-6417

Dear Mr Madziro,

Your permission is herewith requested to allow David Kalaba, a student in the Doctor of Business Leadership at the UNISA Graduate School of Business Leadership (SBL), to conduct academic research in your organisation.

Your company has been selected to participate because you are among the telecom companies registered with ZICTA and may be engaged in or knowledgeable about strategic alliances in the sector.

This study seeks to explore the enterprise cost conceptual model that makes a strategic alliance successful that the current body of knowledge fails to provide a comprehensive answer to. This study, therefore, seeks to fill this theoretical and empirical gap by developing an enterprise cost management conceptual model for managing costs in strategic alliances.

Your organisation participation in this study is very important to us. You may, however choose not to participate and you may also withdraw from the study at any time without any negative consequences.

The results of the study will be used for academic purposes only and may be published in an academic journal. We will provide you with a summary of our findings on request.

Please contact my supervisor, Prof Pantaleo D Rwelamila, Rwelapmd@unisa.ac.za if you have any questions or comments regarding the study. Please sign below to indicate your willingness to participate in the study.

Yours sincerely

David Kalaba

I, ... herewith give my permission for the study to be conducted in ISAT Zambia.

Signature

Date

Appendix E: Study Permission Approval: Zamnet Zambia Limited

Graduate School of Business Leadership, University of South Africa PO Box 392 Unisa 0003 South Africa
Cnr Smuts and First Avenue Midrand 1685 Tel: +27 11 652 0000 Fax: +27 11 652 0299
Email: sbl@unisa.ac.za Website: www.sblunisa.ac.za

REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT ZAMNET

AN ENTERPRISE COST MANAGEMENT CONCEPTUAL MODEL STRATEGIC ALLIANCES IN THE TELECOMMUNICATION SECTOR – THE CASE OF ZAMBIA

Mr. Nicodemus Mwazya
Managing Director
COMESA Centre
Ben Bella Road
Tel +260 211 224 665 Email: md@zamnet.zm

Dear Mr Mwazya,

Your permission is herewith requested to allow David Kalaba, a student in the Doctor of Business Leadership at the UNISA Graduate School of Business Leadership (SBL), to conduct academic research in your organisation.

Your company has been selected to participate because you are among the telecom companies registered with ZICTA and may be knowlegeable about strategic allinaces in the sector.

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Please contact my supervisor, Prof Puntaleo D Rwelamila, Rwelapmd@unisa.ac.za if you have any questions or comments regarding the study. Please sign below to indicate your willingness to participate in the study.

Yours sincerely

David Kalaba

I, NICODEMUS MWAZYA, herewith give my permission for the study to be conducted in Zamnet.

Signature

12-06-2015
Date

Appendix F: Study Permission Approval: Coppernet Solutions Zambia Limited

Copy

Graduate School of Business Leadership, University of South Africa PO Box 392 Unisa 0003 South Africa
Cnr Smuts and First Avenue Midrand 1685 Tel: +27 11 652 0000 Fax: +27 11 652 0299
Email: sbl@unisa.ac.za Website: www.sblunisa.ac.za

REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT COPPERNET SOLUTIONS

AN ENTERPRISE COST MANAGEMENT CONCEPTUAL MODEL STRATEGIC ALLIANCES IN THE TELECOMMUNICATION SECTOR – THE CASE OF ZAMBIA

12 June 2015

COPPERNET Solutions Ltd. 18 JUN 2015 RECEIVED

The Chief Eexcutive Officer
Coppernet solutions,Ground Floor
Mukuba Pensions House
Dedan Kimanthi Road
P.O Box 38671
Lusaka

Dear Sir or Madam:.

Your permission is herewith requested to allow David Kalaba, a student in the Doctor of Business Leadership at the UNISA Graduate School of Business Leadership (SBL), to conduct academic research in your organisation.

Your company has been selected to participate because you are among the telecom companies registered with ZICTA and may be engaged in or knowlegeable about strategic allinaces in the sector.

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The results of the study will be used for academic purposes only and may be published in an academic journal. We will provide you with a summary of our findings on request.

Please contact my supervisor, Prof Pantaleo D Rwelamila, Rwelapnd@unisa.ac.za if you have any questions or comments regarding the study. Please sign below to indicate your willingness to participate in the study.

Yours sincerely

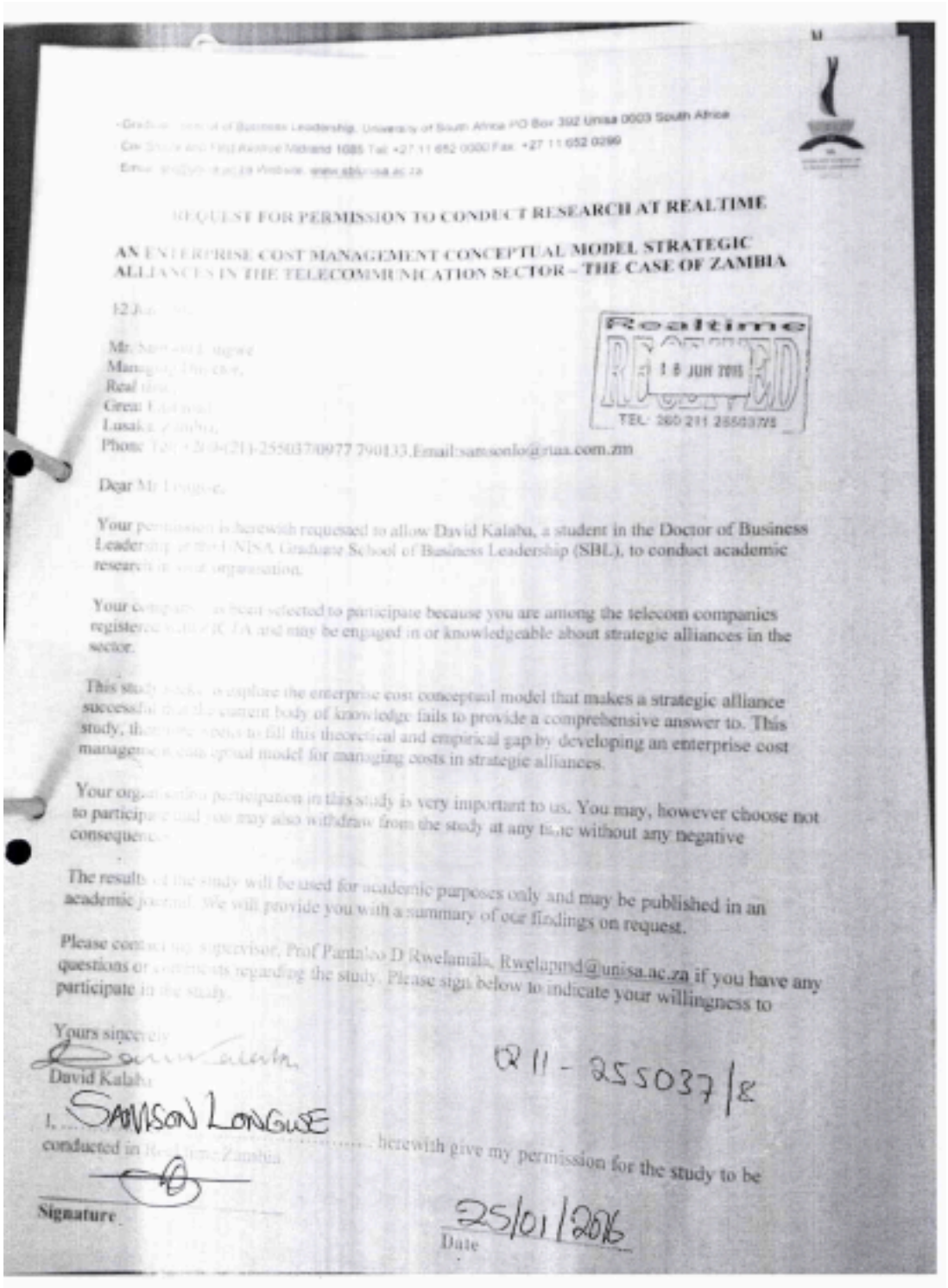
David Kalaba

I, THOMAS K. LUNGA ....., herewith give my permission for the study to be conducted in Coppernet Solutions.

CEO
Signature and Position

16/06/2015
Date

Appendix G: Study Permission Approval: HAI Zambia Limited



REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT REALTIME

AN ENTERPRISE COST MANAGEMENT CONCEPTUAL MODEL STRATEGIC ALLIANCES IN THE TELECOMMUNICATION SECTOR – THE CASE OF ZAMBIA

Realtime RECEIVED 16 JUN 2015 TEL: 260 211 255037/8

Dear Mr

Your permission is herewith requested to allow David Kalaba, a student in the Doctor of Business Leadership at the UNISA Graduate School of Business Leadership (SBL), to conduct academic research in your organisation.

Your company has been selected to participate because you are among the telecom companies registered with ZICTA and may be engaged in or knowledgeable about strategic alliances in the sector.

This study seeks to explore the enterprise cost conceptual model that makes a strategic alliance successful. The current body of knowledge fails to provide a comprehensive answer to. This study, therefore, seeks to fill this theoretical and empirical gap by developing an enterprise cost management conceptual model for managing costs in strategic alliances.

Your organisation's participation in this study is very important to us. You may, however choose not to participate and you may also withdraw from the study at any time without any negative consequences.

The results of the study will be used for academic purposes only and may be published in an academic journal. We will provide you with a summary of our findings on request.

Please contact my supervisor, Prof Pantaleo D Rwelamila, Rwelapmd@unisa.ac.za if you have any questions or comments regarding the study. Please sign below to indicate your willingness to participate in the study.

Yours sincerely

David Kalaba

I, SAMSON LONGWE herewith give my permission for the study to be conducted in Realtime Zambia

Signature

Date 25/01/2016

Appendix H: Study Permission Approval: Post ISP Zambia Limited

Graduate School of Business Leadership, University of South Africa PO Box 392 Unisa 0003 South Africa
Cnr Smuts and First Avenue Midrand 1685 Tel: +27 11 652 0000 Fax: +27 11 652 0299
Email: sbl@unisa.ac.za Website: www.sblunisa.ac.za

REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT AFRICONNECT

AN ENTERPRISE COST MANAGEMENT CONCEPTUAL MODEL STRATEGIC ALLIANCES IN THE TELECOMMUNICATION SECTOR – THE CASE OF ZAMBIA

12 June 2015

KEN: N CHAMBWA

Mr. ~~Thami Mazibuko~~
Managing Director
~~Africonnect Zambia Limited,~~ POST ISP ZAMBIA
~~BancABC House (Next to Southern Sun Ridgeway), Church Road~~
~~P. O. Box 31276~~ P/BAG E359
Lusaka, Zambia, Phone Tel: ~~+260 (211) 23 2005 email:thami@africonnect.zm~~

Dear Mr Thami Mazibuko,

Your permission is herewith requested to allow David Kalaba, a student in the Doctor of Business Leadership at the UNISA Graduate School of Business Leadership (SBL), to conduct academic research in your organisation.

Your company has been selected to participate because you are among the telecom companies registered with ZICTA and may be engaged in or knowledgeable about strategic alliances in the sector.

This study seeks to explore the enterprise cost conceptual model that makes a strategic alliance successful that the current body of knowledge fails to provide a comprehensive answer to. This study, therefore, seeks to fill this theoretical and empirical gap by developing an enterprise cost management conceptual model for managing costs in strategic alliances.

Your organisation participation in this study is very important to us. You may, however choose not to participate and you may also withdraw from the study at any time without any negative consequences.

The results of the study will be used for academic purposes only and may be published in an academic journal. We will provide you with a summary of our findings on request.

Please contact my supervisor, Prof Pantaleo D Rwelamila, Rwelapmd@unisa.ac.za if you have any questions or comments regarding the study. Please sign below to indicate your willingness to participate in the study.

Yours sincerely
David Kalaba

0211 - 226027
0211 - 231052

I, KEN: N CHAMBWA herewith give my permission for the study to be conducted in ~~Africonnect Zambia~~. POST ISP ZAMBIA

Signature

16/6/2015
Date

Appendix I: Study Permission Approval: Airtel Zambia Plc

Graduate School of Business Leadership, University of South Africa PO Box 392 Unisa 0003 South Africa
Cnr Smuts and First Avenue Midrand 1685 Tel: +27 11 652 0000 Fax: +27 11 652 0299
Email: sbl@unisa.ac.za Website: www.sblunisa.ac.za

REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT AIRTEL

AN ENTERPRISE COST MANAGEMENT CONCEPTUAL MODEL STRATEGIC ALLIANCES IN THE TELECOMMUNICATION SECTOR – THE CASE OF ZAMBIA

12 June 2015

Mr. Peter Correia
Managing Director
Airtel Zambia
Aitel House, Cnr Addis Ababa/Great East Roads
Tel +260 977 770077

Dear Mr Correia,

Your permission is herewith requested to allow David Kalaba, a student in the Doctor of Business Leadership at the UNISA Graduate School of Business Leadership (SBL), to conduct academic research in your organisation.

Your company has been selected to participate because you are among the telecom companies registered with ZICTA and may be engaged in or knowlegeable about strategic allinaces in the sector.

This study seeks to explore the enterprise cost conceptual model that makes a strategic alliance successful that the current body of knowledge fails to provide a comprehensive answer to. This study, therefore, seeks to fill this theoretical and empirical gap by developing an enterprise cost management conceptual model for managing costs in strategic alliances.

Your organisation participation in this study is very important to us. You may, however choose not to participate and you may also withdraw from the study at any time without any negative consequences.

The results of the study will be used for academic purposes only and may be published in an academic journal. We will provide you with a summary of our findings on request.

Please contact my supervisor, Prof Pantaleo D Rwelamila, Rwelapmd@unisa.ac.za if you have any questions or comments regarding the study. Please sign below to indicate your willingness to participate in the study.

Received by
Mwila
Rope 0977915000

Yours sincerely
David Kalaba

I, ..., herewith give my permission for the study to be conducted in Airltel.

Signature **Date**

Friday, March 5, 2021 at 3:42:11 PM East Africa Time

Subject: Strategic Alliance Research Follow up
Date: Monday, 6 June 2016 at 12:37:17 PM East Africa Time
From: Mwila Katongo kabaso /Corporate Communication /Zambia
To: Natasha Yambayamba /Human Resources /Zambia
CC: Kalaba, David Mwewa
Priority: High
Attachments: DK Questionnaire Strategic Allinaces final 14 April.pdf, David Kalaba Semi structured in-depth 14 April 2016.pdf, Informed Consent Form.pdf, Ethical Approval.pdf

Dear Natasha,

As discussed, Kindly find attached the request from Mr. Kalaba, a student wishing to conduct a research for academic purposes.
Please assist.

I had forwarded to Veronica some time back, but you may take it up.

Thanks.

Kindly regards,
Mwila

From: Kalaba, David Mwewa [mailto:dkalaba@bu.edu]
Sent: Monday, June 06, 2016 11:08 AM
To: Mwila Katongo kabaso /Corporate Communication /Zambia
Subject: Re: Strategic Alliance Research Follow up
Importance: High

Good morning Mutale,
I hope this finds you well. I have now received the ethical clearance from my University. I would like to conduct two interviews and administer three questionnaires in your organizations as follows:
Interviews (02)
- Possibly one with the CEO and the other with the CTO or any senior operations officer
Each interview should take not more than 1 hour. I am attaching the research instrument – interview guide that I will use.

Questionnaires (03)
- These could be any four staff each from (i) Finance (CFO), (ii) Marketing and Sales Director, (iii) Any officer handling contracting issues
I am attaching the questionnaire that will be will be administered by my research assistants. I am sending it so that the staff concerned could familiarize themselves with the instrument.

I am attaching the approval letter from my University together with the informed consent that each respondent will be required to sign. I assure you of my highest level of confidentiality and each research assistant has been trained by myself and have signed confidentiality statements.

Kindly confirm the timing that work for you and your team.
Kind Regards,

David Kalaba, BSc, MBA, FCCA, FMAAT, ZICA
Director of Finance and Administration
Boston University -
Zambian Centre for Applied Health Research and Development (ZCAHRD) Ltd
Plot 4186 Addis Ababa Drive, Long Acres
P O Box 30910, Lusaka Zambia

Appendix J: Study Permission Approval: MTN Zambia Limited

Dear David,
We'll have to reschedule our meeting to other time next week.
There other meetings that had been lined up this week and attending the MTN Zambia board meeting on Thursday.
Hence I don't see us meeting this week.
Regards,

Thomas Lumba, Jr.
Senior Manager - Commercial Financial Controler
MTN (Zambia) Limited.
Mobile: +260 966 220 122
thomas.lumba@mtnzambia.com

Appendix K: Study Permission Approval: Zamtel

Graduate School of Business Leadership, University of South Africa PO Box 392 Unisa 0003 South Africa
Cnr Smuts and First Avenue Midrand 1685 Tel: +27 11 652 0000 Fax: +27 11 652 0299
Email: sbl@unisa.ac.za Website: www.sblunisa.ac.za

REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT ZAMTEL

AN ENTERPRISE COST MANAGEMENT CONCEPTUAL MODEL STRATEGIC ALLIANCES IN THE TELECOMMUNICATION SECTOR – THE CASE OF ZAMBIA

12 June 2015

Dr. Mupanga Mwanakatwe
Chief Executive Officer
Zamtel
Zamtel House, Corner of Chilubi and Church Roads
Fairview
Lusaka, Zambia, Tel: +260 (211) 333152/333153

Dear Dr Mwanakatwe,

Your permission is herewith requested to allow David Kalaba, a student in the Doctor of Business Leadership at the UNISA Graduate School of Business Leadership (SBL), to conduct academic research in your organisation.

Your company has been selected to participate because you are among the telecom companies registered with ZICTA and may be engaged in or knowlegeable about strategic allinaces in the sector.

This study seeks to explore the enterprise cost conceptual model that makes a strategic alliance successful that the current body of knowledge fails to provide a comprehensive answer to. This study, therefore, seeks to fill this theoretical and empirical gap by developing an enterprise cost management conceptual model for managing costs in strategic alliances.

Your organisation participation in this study is very important to us. You may, however choose not to participate and you may also withdraw from the study at any time without any negative consequences.

The results of the study will be used for academic purposes only and may be published in an academic journal. We will provide you with a summary of our findings on request.

Please contact my supervisor, Prof Pantaleo D Rwelamila, Rwelapmd@unisa.ac.za if you have any questions or comments regarding the study. Please sign below to indicate your willingness to participate in the study.

Yours sincerely
David Kalaba

I, ……., herewith give my permission for the study to be conducted in Zamtel.

Signature **Date**

Friday, March 5, 2021 at 3:45:35 PM East Africa Time

Subject: RE: Doctoral Research
Date: Tuesday, 14 March 2017 at 8:14:23 PM East Africa Time
From: Silumbu, Mooka
To: Kalaba, David Mwewa

You are welcome. Please call me for an appointment.
Regards,

From: Kalaba, David Mwewa [mailto:dkalaba@bu.edu]
Sent: Tuesday, February 28, 2017 10:01 PM
To: Silumbu, Mooka
Subject: Re: Doctoral Research

Good evening chief Silumbu,
Hope you are doing well. I am making a follow up on my request. One interview and one questionnaire will do considering your recent corporate changes. I am currently in South Africa reviewing my school progress with my supervisor who said it will be important to include Zamtel in the sample. I return this Saturday and was wondering if I could pass through your office say Tuesday morning around 09:30 hrs.

Kind Regards,

David Kalaba, BSc, MBA, FCCA, FMAAT, FZICA
Director of Finance and Administration
Boston University -
Zambian Centre for Applied Health Research and Development (ZCAHRD) Ltd
Plot 4186 Addis Ababa Drive, Long Acres
P O Box 30910, Lusaka Zambia
Tel: +260 211 258 656, Fax: +260 211 268 615
Cell: +260 971 234 146, Skype: dkalaba

From: "Kalaba, David Mwewa" <dkalaba@bu.edu>
Date: Thursday, January 19, 2017 at 16:07
To: "mooka.silumbu@zamtel.co.zm" <mooka.silumbu@zamtel.co.zm>
Subject: Doctoral Research

Happy New Year chief Silumbu,
I hope you had a restful and enjoyable holiday with your family.

I making a follow up on the research request and when I could get the opportunity to do one interview and administer two questionnaires. Given the time constraint, I have reduced the sample to one interview with either the MD or CTO and two questionnaires for CFO and Legal Counsel or CMO.

Many thanks for your help.

Kind Regards,

Appendix L: UNISA Ethical Clearance Approval

Graduate School of Business Leadership, University of South Africa, PO Box 392, Unisa, 0003, South Africa
Cnr Janadel and Alexandra Avenues, Midrand, 1685. Tel: +27 11 652 0000. Fax: +27 11 652 0299
E-mail: sbl@unisa.ac.za Website: www.unisa.ac.za/sbl

SCHOOL OF BUSINESS LEADERSHIP

RESEARCH ETHICS REVIEW COMMITTEE (GSBL CRERC)

22 March 2016

Ref #: 2016_SBL/DBL_001_FA
Name of applicant: Mr D Kalaba
Student #: 72526467

Dear Mr Kalaba

Decision: Ethics Approval

Student: Mr D Kalaba, dkalaba@bu.edu, +260 9712 34146

Supervisor: Prof PD Rwelamila, rwelapmd@unisa.ac.za, 011 652 0236

Project Title: An Enterprise cost management conceptual model for strategic alliances in the Telecommunications Sector - the case of Zambia.

Qualification: Doctorate in Business Leadership (DBL)

Thank you for applying for research ethics clearance, SBL Research Ethics Review Committee reviewed your application in compliance with the Unisa Policy on Research Ethics.

Outcome of the SBL Research Committee:

Approval is granted for the duration of the first phase of the Project

The application was reviewed in compliance with the Unisa Policy on Research Ethics by the SBL Research Ethics Review Committee on the 17/03/2016.

The proposed research may now commence with the proviso that:

1) The researcher/s will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
2) Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study, as well as changes in the methodology, should be communicated in writing to the SBL Research Ethics Review Committee.

45 years Building leaders who go beyond

SBL GRADUATE SCHOOL OF BUSINESS LEADERSHIP UNISA

Graduate School of Business Leadership, University of South Africa, PO Box 392, Unisa, 0003, South Africa
Cnr Janadel and Alexandra Avenues, Midrand, 1685, Tel: +27 11 652 0000, Fax: +27 11 652 0299
E-mail: sbl@unisa.ac.za Website: www.unisa.ac.za/sbl

3) An amended application could be requested if there are substantial changes from the existing proposal, especially if those changes affect any of the study-related risks for the research participants.
4) The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study.

Kind regards,

Prof R Ramphal
Chairperson: SBL Research Ethics Committee
011 – 652 0363 or ramphrr@unisa.ac.za

Dr R Mokate
CEO and Executive Director: Graduate School of Business Leadership
011- 652 0256/mokatrd@unisa.ac.za