

**RELATIONSHIP BETWEEN ACCOUNTING OUTSOURCE
DRIVERS AND FINANCIAL PERFORMANCE OF SMALL AND
MEDIUM ENTERPRISES IN NIGERIA**

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**Relationship between Accounting Outsource Drivers and Financial
Performance of Small and Medium Enterprises in Nigeria**

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other University.

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DEDICATION

Foremost to my creator, God Almighty. To my late father, Elder Augustine Farinloye Oluwaremi; my mother, Deaconess Juliana Folashade Oluwaremi and my treasured wife, Deaconess Grace Oluwatoyin Oluwaremi.

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ACRONYMNS

ANOVA	Analysis of Variance
AS	Asset Specificity
BU	Behavioral Uncertainty
CAR	Cost-Asset Ratio
CBN	Central Bank of Nigeria
CC	Core Competence
CFA:	Confirmatory Factor Analysis
CIR	Cost-Income Ratio
d.f.:	Degree of Freedom
EFA:	Exploratory Factor Analysis
EU	Environmental Uncertainty
FA:	Fixed Assets
FP	Financial Performance
FAF	Frequency of Accounting Functions
FG	Firm Age
FS:	Firm Size
ILO	International Labour Organisations
LV:	Latent Variables
NBS	National Bureau of Statistics
NEEDS	National Economic Empowerment and Development Strategy
NERFUND	National Economic Reconstruction Fund
ns:	Not significant
OAIO	Outsourcing Association of India
OECD	Organisation for Economic Cooperation and Development
OLS	Ordinary Least Square
PCA:	Principal Component Analysis
PLS	Partial Least Squares
RBV:	Resource Based View
ROE	Return on Equity
SAP	Structural Adjustment Programme
SBU	Strategic Business Unit

Se	Standard Error
SEM:	Structural Equation Modelling
SMEs:	Small and Medium sized Enterprises
SMECGS	Small and Medium Enterprises Credit Guarantee Scheme
SMEDAN	Small and Medium Enterprises Development Agency of Nigeria
SMEEIS	Small and Medium Enterprises Equity Investment Scheme
SMEs	Small and Medium Enterprises
SPSS:	Statistical Package for Social Sciences
TCE	Transaction Cost Economics
VIF	Variance Inflation Factor

DEFINITION OF KEY TERMS

- Business owner(s):** There is no standard definition of a small business owner. However, the expression small business owner is often used. In research and policy debate, and is taken to include the following: a person or persons who own and run the business, and where these business owners are identified as the proprietor of a sole proprietorship, the partners of a partnership (Neuman, 2006)
- Business process outsourcing:** occurs where a supplier takes over responsibility for one or more of an organizations business processes (Blois, 2002)
- Enterprise:** An institutional unit comprising a single legal entity or business entity; or more than one legal entity or business entity within the same organization group and the same institutional subsector (Earl, 1996).
- Finance and accounting outsourcing:** For the purpose of this research, finance and accounting outsourcing is defined as the strategic use of an external third party organization to perform all or part of an organizations back office functions within the organizations environment (Casale, 2004).
- Outsourcing:** An arrangement in which one organization provides a service or services for another organisation that chooses not to perform those services in-house (Everaert *et al.*, 2006)

- Small business:** Small businesses (excluding agricultural businesses) are those businesses employing fewer than ten people (SMEDAN, 2010)
- Strategic alliance:** Viewed broadly as arrangements among firms to work together to attain some strategic objective (Mol *et al.*, 2005).
- Strategic objectives:** High-level goals that are aligned with and support the organizations mission (Kamyabi & Devi, 2011)
- Strategic outsourcing:** an organizing arrangement that emerges when firms rely on intermediate markets to provide specialized capabilities that supplement existing capabilities deployed along a firms value chain (Holcomb & Hitt 2007)
- Tactical objectives:** Processes or activities identified as part of the strategic planning process (Grant, 1996)

ABSTRACT

The focus of this study was accounting function as a member of support activities of the organization which its undisturbed implementation within (in-house) or outside (outsource) the organization must be achieved at an appropriate level of quality and cost. This leads to the issue of boundary decision that simply connotes that the chosen location for the production of a product or service should positively support the profit-maximization motive of the organization. The target population of the study are the SMEs in three Geo-political zones of Southern part of Nigeria consisting of 5,907 SMEs. The sampling technique adopted was a two-stage sampling technique applied chronologically as follows: stratified and simple random sampling techniques which produced an observation of 411 used for the study. Both primary and secondary data options were explored with the main aim of making sufficient data available for the study. Structured Questionnaires were used to collect primary data from the respondent organisations and the secondary data was obtained from the Annual Financial Reports of the respondent organisations for the 5-year period covering 2008 to 2012. Structural Equation Modelling (SEM) was employed to analyse the data by using both the SPSS 23 and Smart PLS packages. The findings of the study show that there was significant relationship between accounting outsource drivers and the financial performance of SMEs in Nigeria as substantiated with the p-value of less than 0.05 recorded by each construct of the Independent variable (Accounting Outsource Drivers). Also, the study reveals that both firms size and firms age have no significant moderating effect on the accounting outsource drivers and the financial performance of SMEs in Nigeria as their actual individual p-value is greater than 0.05 level. One of the major recommendations of the study is that accounting outsource bridges the internal knowledge gap and creates avenue for the organizations to enjoy capability complementarity which is given as a situation in .which specialized capabilities obtained from outside enhance the value creation potential of a focal firms own capability endowments. Thus, where complementarities exist, the integration of internal and external capabilities enhances the potential financial performance firms realize.

CHAPTER ONE

INTRODUCTION

1.1 Background

The current business environment is best described as hyper-competitive (Corbett, 2004). It is increasingly stated that to survive in such an environment companies should focus on a narrow set of core competencies (Alvarez-Suescun, 2010). In fact, Achrol (1997) predicted that the classic, vertically integrated organization that was so successful in the 20th century was unlikely to survive in the knowledge-rich and very turbulent environment of the 21st century. Later Blois (2002) predicted that the global economy would accelerate to the point at which only the most flexible organizational structures would be able to survive in the increased competition. In fact according to Feeny and Willcocks (2005), in a turbulent environment the simple goal of the strategy should be strategic flexibility. As a result, firms that increasingly pursue this flexibility seek value in the non-core areas across company borders through outsourcing.

The new industrial characteristics impose many challenges upon the companies operating in it. For instance, market globalization and concurrent technological developments have increased the competition in all industries. Firms need to find ways of reaping value from innovations rapidly, as product life cycles are becoming shorter, and in times of rapid technological change competitive edges are only temporary (Zenger, 1998). Thus, the sustainable advantage lies in the creation of innovative business models that more often rely closely on creating network relationships, facilitated by industrial fragmentation.

Furthermore, the increasing outsourcing intensity brings several challenges in terms of managing day-to-day operations. The question is no longer whether to outsource an activity or a process, but rather how to outsource every single activity in the value

chain (Gottfredson, 2005), and this development seems to be irrespective of the industry. In fact, in the future the main value-creating competencies may well be based on a superior ability to combine activities across internal and external boundaries, and to manage the resulting network (Lamminmaki, 2008). Firms need new competencies in outsourcing management because those that outsource poorly may not only fall behind their competitors, but also be severely hampered in their ability to compete (Dwyer & Oh, 1987).

What has caused the skyrocketing popularity of this phenomenon is the increased competition arising mainly as a result of globalization that coerces companies into rethinking their position in the marketplace. They are being forced to find ways of making their economic activities better, faster and cheaper while remaining flexible enough to meet the ever-changing demands of customers and competitors (Hatonen, 2008). According to Fenxia and Jingjiang (2005), it is becoming possible to buy off the shelf practically any function required to run a business. Activities that companies have always believed to be core activities in their business are suddenly being offered by new, specialized competitors that can do them better, faster and more efficiently (Embleton & Wright 1998).

Global access to an unlimited number of vendors and falling interaction costs caused mainly by improved information technologies, and communication links are diminishing this transaction cost of outsourcing and are thus providing companies with unprecedented restructuring opportunities (Jayabalan et al. 2009). Consequently, companies of all sizes and in all industries are capitalizing on the possibilities a well-executed outsourcing strategy can provide (Fenxia & Jingjiang, 2005). Outsourcing, therefore, has been referred to as a topic of growing interest in business research.

Understanding how firms establish exact scope has interested management scholars for some time, and a body of research has explored the boundary conditions organizations consider when choosing to source activity from the marketplace

(Gilley & Rasheed, 2004). In particular, this study highlights the multiple choices firms make when deciding whether to internalize or outsource a business function. On the one hand, internalization requires firms to commit resources to a course of action, which may limit strategic flexibility and be difficult to reverse (Hosking 2002). On the other hand, internalization may be required by firms to carry more effectively out production.

The complexity of these boundary decisions has intensified in recent years stimulated by increased competitive pressures, the rapidity of technological change, and the dispersion of knowledge across different organizations and geographic markets (Jane *et al.*, 2005). Accordingly, a variety of outsourcing arrangements has emerged. This study will rely primarily on both transaction-cost economics and resource-based logics to investigate the effects of outsourcing accounting functions on the financial performance of SMEs in Nigeria in a bid to explore intermediate markets to provide specialized capabilities that supplement existing capabilities available within the organization.

The Firm size often ascertains the extent of its activities (Carey *et al.*, 2006). RBT suggests that smaller firms seek accounting services to enhance their competitiveness as the firm extends its market (Marriott *et al.* 2008). One important characteristic of smaller firms is that they rarely have the resource to allow accounting functions to be carried out in house (Gooderham *et al.*, 2004). Therefore, RBT explained that the use of external support and professional services interacts with the size and age of the firm (Bennett and Robson, 2003). For instance, smaller and younger businesses are likely to have more limited internal resources than larger companies (Johnson *et al.*, 2007). Consequently, small firms seek external assistance from accountants (Gooderham *et al.*, 2004). In addition, TCE theory influences firm size via economies of scale whereby smaller firms are shown to have lower frequency of activities than larger enterprises (Carey *et al.*, 2006). For example, smaller firms have greater difficulty to create economies of scale, and cannot have any justification for adopting in-house facilities and enhance outsourcing alternatives (Carey *et al.*,

2006). Johnson *et al.* (2007) and Dyer and Ross (2008) suggest that the use of professional and support services positively associated with size of the firm . Conversely, Mohan-Neill (1995) indicated that younger and smaller firms utilize less market information when they make decisions. That is why the new and smaller firms have a limited financial and human resource, which makes collecting information a difficult task (Mohan-Neill, 1995). Although large firms might also benefit from the intrinsic efficiencies of an external accountant, the comparative benefit of the external accountant is probable to lessen as the firm size enhances because larger companies have greater capacity to get cost efficiencies via economies of scale from an in-house facilities (Carey *et al.*, 2006).

Firm age, or the number of years a firms foundation may affect the relationship between a firms outsourcing of accounting functions and her financial performance. In comparing older and younger firms, Glisson and Martin (1980) argued that younger firms tend to concentrate on product and market development when establishing their businesses, rather than accounting operation. Consequently, Glisson and Martin (1980) contend that younger firms accounting systems tend to be inadequate, resulting in lower quality accounting and disclosure. In contrast, older firms tend to have well-established accounting system and experienced managers and staff or employment the services of the external experts (outsourcing), resulting in higher quality accounting and disclosure.

1.1.1 Revolution of Outsourcing

Outsourcing as a strategy has its root from the early ages of industrialization. Looking back at recent developments in the outsourcing strategy we could identify three broad and overlapping, yet distinct phases: the era of the Big Bang, the era of the Bandwagon, and the era of Barrier-less Organizations. The Big Bang era, lasting between the 1980s to early 1990s, companies outsourced non-core business

processes, to cut operational costs. During the first phase, the organizations strategic rationalization of Profit Maximization was rooted on the Transaction Cost Theory. The core competence of the corporation was the management of vital strategic business units (SBU).

The situation changed with Prahalad and Hamel (1990), seminal article The core competence of the corporation, introducing a new management approach of key strategic competencies, to replace SBU thinking. Positive experiences from prior outsourcing cases drove other companies to join the cause instigating the Bandwagon era, the second wave. As a result, companies started outsourcing functions that were not in their area of expertise. Achieving cost efficiency was no longer the single motive, and organizations begun to seek skills, competencies and knowledge outside the organization to add value to more complex and strategically important organizational processes (Alexander, 1996). As organizations stretched their boundaries to gain competitive advantage, a new buzzword, strategic outsourcing emerged. The management ideology of focus on your core competency and outsource the rest gaining popularity in several industries (Porter, 1980).

By the turn of the millennium, the popularity of outsourcing had led to a situation in which outsourcing as such was no longer a competitive differentiator; it was a common way of doing business, usual than an exception (Zenger, 1998). Global access to vendors, falling interaction costs, and improved information technologies and communications provided companies with equal opportunities to restructure their businesses (Alexander, 1996). The global resources pool had become available to all, creating the third wave of the outsourcing phenomenon, the era of the Barrier-less Organization. This position led to the present state of outsourcing referred to as transformational outsourcing of the 21st century, which aimed at creating radical business models that can give firms a competitive edge and change the game in their industries.

Whereas traditional outsourcing focused on working assets harder, and strategic outsourcing aimed at acquiring capabilities that do not exist internally, transformational outsourcing changed the paradigm. The transformational outsourcing core organizational competencies focuses on dynamic competencies and network abilities. Rooted in the economic theories of the firm transformational outsourcing targeted the new adaptive and barrier-less enterprise (Linder, 2004). Below is the summary of the revolution of outsourcing as succinctly displayed (Jussi, 2008).

Table 1.1 Revolution of Outsourcing

	BIG BANG	BANDWAGON	BARRRIERLESS ORGANIZATIONS
Time Period	1980s to early 1990s	Early 1990s to early 2000	From the early 2000s onwards
Prime motives for outsourcing	Cost cutting	Cost cutting, capability enhancement	Organisational Transformation
Buzzwords	Outsourcing	Strategic outsourcing	Transformational Outsourcing
Location	Domestic	International	Global
Management	Arms-Length transactions	(Strategic) Alliances	Collaborative development
Organisation	Efficient Organisation	Focused Organisation	Virtual Organisation
Core Organisational Competences	Management of Key strategic business units (SBUs)	Key strategic competences (Core Competences)	Dynamic Competences and Network Competences
Strategic Rationalisation	Profit Maximising	Strategic and Competitive Edge	Survival
Outsourcing Objects	Structured and well defined turnkey manufacturing processes	Strategically important organizational process	Highly knowledge-intensive and creative projects
Main Theories	Transaction Cost Theory	Resource/Competence Based Theory	Organisational Theories

Source: Jussi Hatonen 2008

Understanding how firms establish exact scope has interested management scholars for some time, and a body of research has explored the boundary conditions organizations consider when choosing to source activity from the marketplace (Gilley & Rasheed, 2004; Quinn, 1999). In particular, this research highlights the multiple choices firms make when deciding whether to internalize or outsource certain business processes. On the one hand, internalization requires organizations to

commit resources to a course of action, which may limit strategic flexibility and be difficult to reverse (Jane *et al.*, 2002).

Therefore, entrepreneurs face difficult task of easy decision taking when it comes to determining the boundary of a transaction, that is, determining where a business deal should take place (within the firm or outside the firm). A given transaction may possess a clear evidence that it is cheaper to buy from supplier (outsource) but such transaction may not be outsourced because it is core competent activity of the firm (Zenger, 1998; Williamson, 1999). Hence, there is a usual confusion as to what and when to outsource a business process.

1.1.2 Global View on Outsourcing of Business Operations

Several global research agencies including KPMG Report (2013) and Pricewaterhouse Coopers (2007) have reported that worldwide, outsourcing engagements have been growing and will continue to grow consistently both regarding a number of contracts and their average contract value. The advanced industrialized economies such as the USA, Japan, and Western Europe are the principal candidates for the origin of outsourcing transactions (Watjatrakul, 2005). Hence the literature, though it has addressed a wide array of aspects of outsourcing, e.g. technical, motivational, cultural, organizational, strategic, operational, and performance related (as reviewed by Lacity *et al.*, 2009), is primarily focused on understanding the outsourcing phenomenon from developed countries perspective. Banking and financial services sector in India is one of the robust and fast emerging segments in the world (White, 2001).

Globally, it is observed that, given the nature of information technology (IT)-intensive business processes, the banking industry has a enormous potential for benefiting from outsourcing (Tas & Sunder, 2004). In fact, industry research indicates that Banking and Financial Services Industry (BFSI) has been the largest

sectorial user of outsourcing services worldwide next only to manufacturing (Ackermann, 2003). Ismail (2002) added that SMEs are lacking accounting knowledge and support to perform accounting functions thus they are more likely to outsource their accounting works to accounting firms. Previously, accounting functions served mainly for month end reporting or record keeping purposes. Today, the evolution of accounting such as management accounting has made accounting tasks to have more roles to play in any business. Businesses able to sustain their competitive edge as managements are looking at the accounting information for appropriate decision making. In short, accounting functions seem to be relatively important in every business operation.

Outsourcing has emerged as one of the popular and widely adopted business strategies of this globalized era (Willcocks, 2010). Outsourcing is an increasingly important initiative being pursued by organizations to improve efficiency (Vining & Globerman, 1999). To be able to survive and be profitable in current globalization era, companies tend to use outsourcing in larger extent (Brannemo,2006). In todays business environment, companies considered outsourcing to empower business focus, mitigate risks, build sustainable competitive advantage, extend technical capabilities and free resources for core business purposes (Bartell, 1998).

1.1.3 Small and Medium Enterprises Financial Performance

Financial growth is an important aspect of small business operations and entrepreneurship activity (Murphy, 2012). The resources for enabling firm growth include employees, financial capital, and social and relational capital with customers and suppliers (Sinha *et al.*, 2011; De Clercq *et al.*, 2006). These resources are scarce thus, the need for the small businesses to be alert to external opportunities, run flat structures and multi-stage resource commitments for financial growth of the organization (Sadler-Smith *et al.*, 2003). These actions can come in the three forms of enabling resources, realizing operations, and managing relationships (Lechner & Leyronas, 2009).

The first action entails the enabling of resources. Small businesses must identify, pursue, and exploit necessary resources to grow (Lichtenstein and Brush, 2001). The capability to enable resources in different configurations enhances firm fitness (Sirmon *et al.*, 2007), maintains effective operations (Lechner & Leyronas, 2009), and promotes control (Sadler-Smith *et al.*, 2003). The RBV clarifies these activities by conceptualizing firm relations with the environment in terms of a resources value, rareness, inimitability and nonsubstitutability. A TCE approach holds that firms protect themselves from threats of external change by making their resources specific and unable to be redeployed by other firms (Dewald *et al.*, 2007). To the same end, the Resource Dependent Theory (RDT) perspective emphasizes the alignment of firms internal resources and external environment to serve markets better (Salimath *et al.*, 2008).

The second action involves realizing operations. Firm growth requires identifying appropriate operational focus in a changing environment (Companys and McMullen, 2007). From the TCT perspective, minimizing transaction costs is the most important operational focus (Hudson and McArthur, 2004). From the RDT perspective, however, a firm should pursue scarce and valued resources, even though the transaction costs may be high (Covin *et al.*, 2006). Managing the complexity of internal and external changes can undermine the retention of a consistent strategic firm orientation (Companys & McMullen, 2007). In this way, focusing on transaction costs or pursuit of valuable resources can impede operational focus and steer a firm away from its original mission and values (Covin *et al.*, 2006). Therefore, the RBV holds that a firms operational focus should always remain with its core competencies, which are derived from its difficult-to-replicate resources (Takeishi, 2001).

The third and final action entails managing relationships. From the Resource Dependent Theory (RDT) perspective, growth-oriented small firms should rely

heavily on partnerships due to the lack of necessary resources (Sorenson et al., 2008). Small firms benefit from such relations when core competencies and resources are accessible in the network (Lounsbury & Glynn, 2001). From the TCT perspective, these partnerships have a tension because of the need to preclude opportunistic behavior (Williamson, 1985). Moreover, bargaining power in these partnerships is a function of what each partner might lose upon exit from the partnership, which introduces certain costs. Therefore, small firms must select the right governance mechanism (i.e. Hierarchy versus Market) to control these costs (Everaert *et al.*, 2010). The RBV holds that firms can ameliorate such costs via internalizing resources for core competency (Hitt *et al.*, 2007). However, the costs of internalizing processes should balance with the uncertainty of approaching a potential outsourcing arrangement (Everaert *et al.*, 2010).

Recently organizations shift their focus towards their core competences; the outsourcing of less critical functions to a third party is becoming an attractive option (Longenecker *et al.*, 2003). In other words, strategic motivation of outsourcing centers on re-focusing of organisations resources on core competence and the need for greater flexibility of such resources to manage demand swings (Kakabadse & Kakabadse, 2000). Ricardo (1817) suggests that firms should focus on their own relative comparative advantages and outsource other relevant activities to other companies that possess different relative comparative advantages. Nurturing acquisition of required internal skill and competence for the execution of firms core activities will guarantee appreciable competitive edge.

There are, however, potential pitfalls when outsourcing for strategic reasons. Organizations may give away the crown jewels if they are not careful (Vollmers, 1997). IBM is used as a frequent example of a company that outsourced the wrong things (the operating system). If organizations outsource the wrong functions they may develop gaps in their learning or knowledge base which may preclude them from future opportunities (Earl, 1996; Prahalad & Hamel, 1990). Specifically, in highly integrated and evolutionary technologies, applying the traditional core

competence tests may result in outsourcing too many or the wrong functions. Literature also indicates that in industries with complex technologies and systems, internal synergies may be lost when some functions are outsourced. This could result in less productivity or efficiency among the remaining functions (Quinn & Hilmer, 1994).

1.1.4 Outsourcing of Accounting Functions Among SMEs

The accounting functions are among most commonly outsourced, though they are usually limited to only a few of tasks within the function, however, there are opportunities available to SMEs to outsource a wide array of services in this area if a company is willing to work with multiple suppliers to achieve this goal (Bragg, 2006). For instance, cash management services are offered by most regional banks. Taxation, financial reporting, and internal audit services are provided by all of the largest auditing firms, such as Ernst & Young LLP and Deloitte & Touche LLP.

OAOI (2007) suggests that by switching to outsourcing of accounting, it enables companies to reduce overhead and focus on their core business. In addition, they also mentioned that the time spent on bookkeeping problems would add little or rather no value to a company's customer relationship. Moreover, they also said that outsourcing services helps such companies manage their work well. As the total cost for managing the accounting work by outsourcing firm is far lesser than hiring in-house staff, almost every company is making accounting outsourcing a part of its long-term sustainable business model.

Krell (2006) has mentioned that some components of accounting functions are suitable to be outsourced such as general ledger, financial reporting and internal services. The abstraction of elements of business outsourcing for operations finance and accounting services are as follows: General accounting, Audit, Accounts payable, Banking, Financial services solutions, Credit services, Insurance processing, Tax Services, Billing systems, Accounts receivable, Collections and credit,

Compliance and Management Reporting. The outsourcing of accounting and finance functions will become prevalent and continue to grow (Shailendra, 2004). The global market for outsourcing finance and accounting functions is expected to grow at a 9.6% compounded annual growth rate (CAGR), and top \$47.6 billion in 2008, according to a new report from IDC (Casale, 2004).

However, outsourcing should be undertaken with caution as there will be loss of direct control over quality and leads to additional coordination expense and delays where prompt management and business decision will be affected; besides, it will also jeopardizes employee loyalty because of the job-loss fear Aubert *et al* (2004), Earl (1996)). Another concern of having outsourcing is the exposure to data security and customer privacy issues. This will also atrophies of in-house capability to perform outsource services. Finally, the dependence on one supplier compromises future negotiation leverage (Bragg, 2006).

1.1.5 SMEs in Nigeria and Nigerian National Outsourcing Policy: An Overview

There lacks a universal definition of SMEs across countries, the CBN communiqué No 69 of the special monetary policy committee meeting of April 15, 2010 acknowledged the existence of several definitions of SMEs. However, the European Union (EU) in 2003 adopted a universally accepted definition of small and medium scale enterprises and micro business as companies with less than 250 employees, revenues must not exceed 50million euro (turnover) or 43million euro (Doving *et al.*, 2005). Nigeria with the introduction of National Policy on MSMEs has addressed the issue of definition as to what constitutes micro, small and medium enterprises (MSMEs). The definition adopts a classification based on dual criteria of employment and assets (excluding land and buildings) as shown below:

Table 1.2: Definition Criteria of Micro, Small & Medium Enterprises in Nigeria

S/N	Size Category	Employment	Asset (=Nm) Excluding Land & Building
1	Micro Enterprises	Less than 10	Less than 5
2	Small Enterprises	10 to 49	5 to less than 50
3	Medium Enterprises	50 to 199	50 to less than 500

Source: National Policy on MSMEs

If there exist a conflict between employment and assets criteria, the employment-based classification will take precedence (National Policy on MSMEs).

In Nigeria, SMEs sector plays a pivotal role through several pathways that goes beyond job creation. They are growth-supporting sector that not only contribute significantly to improve living standards, but also bring substantial local capital formation and achieve high level of productivity of SMEs. To effectively harness the potential of the SMEs, the sector became particularly a focus of attention during the era of the Structural Adjustment Programme (SAP, 1986). Thus SAP policy saw the rising profile of increased number of SMEs. As form of encouragement, the policy was adopted to use the sector as a stepping stone for both job creation and industrialization (NBS-SMEDAN, 2010). To address the problems of access to credits and establish SMEs as polar axis for Nigerias industrialization, Small and Medium Industry Equity Investment Scheme (SMIEIS) was initiated by the Central Bank of Nigeria in collaboration with Bankers Committee in June, 2001.

In its continued search for solutions towards a vibrant and virile SMEs sector, and to entrench the sector into the main stream of the Nigerian economy, the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) was established in 2003. The agency is a one stop shop for nursing and nurturing SMEs in Nigeria. Consequently, this agency has since inception been in the forefront of developing and promoting SMEs in Nigeria. SMEs are distributed by clusters within regions. We have the Aba leather and the fashion SMEs clusters, Nnewi has the automobile

SMEs cluster, Lagos has the Otigba ICT SMEs cluster, Abeokuta and Oshogbo the tie and dye SMEs clusters and Kano has the leather SMEs clusters. There is no reliable database on SMEs in Nigeria and so it is difficult to accurately determine the number of SMEs in Nigeria. However, the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) using data collected from the National Bureau of Statistics (NBS) is working on the publication of its first comprehensive database of small businesses in Nigeria (leadership newspaper 05/03/2012).

Furthermore, to achieve tremendous benefits from outsourcing, Nigerian Government saw a need for a concerted and coordinated effort between her and the private sector. The National Outsourcing Policy was rolled out in January, 2007 to address the necessary incentives for participating organizations in terms of tax moratorium, designation of a Technology Economic Zone, and guarantees access to credit through the SME program, facilitation of round table discussions with global leaders in outsourcing and Nigerians in Diaspora, and sponsored trade missions to different countries (NBS-SMEDAN, 2010). It also focuses on a wide range of issues that would foster and facilitate the development of a virile outsourcing sector in Nigeria and ultimately make Nigeria a major IT Enabled Outsourcing hub in West Africa.

The Federal Government in collaboration with the private sector follow an accelerated phase-by-phase implementation strategy, in which the outsourcing economy will first be developed to focus on onshore markets, and then proceed to near-shore markets and finally the global offshore market. To successfully implement the National Initiative on Outsourcing, there is need for a strong collaborative effort between government and the industry leaders in the private sector. The role of government in this initiative is to provide the necessary incentive that will motivate both local and foreign entrepreneurs to invest in this sector of the economy. The role of the private sector is to take advantage of incentive program and utilize its benefit in creating a new and vibrant sector of the economy (NBS-SMEDAN, 2010).

Despite the endless efforts on SMEs in Nigeria, many believe that these efforts of government have generally yielded poor results (Ogboru, 2007). Given the large domestic market and plethora of raw materials in Nigeria, there is little progress in terms of manufacturing value -added products, either for import substitution, exports, or employment creation. The small holder agricultural sector has also not fared better and the country spends millions of dollar to import food and other vital products and services. Nigerian SMEs have not fared particularly well because of hostile operating environment among other challenges. Aremu and Adeyemi (2010) citing Basil et.al.,(2009) observed that most SMEs in Nigeria die within their first five years of existence due to insufficient capital, lack of focus, inadequate market research, over-concentration on one or two markets for finished products, lack of succession plan, inexperience, lack of proper book keeping, irregular power supply, infrastructural inadequacies (water, roads etc), lack of proper records or lack of any records at all, inability to separate business and family or personal finances, lack of business strategy, inability to distinguish between revenue and profit, inability to procure the right plant and machinery, inability to engage or employ the right caliber staff, cut-throat competition.

1.2 Statement of Problem

Many empirical studies show that small enterprises use professional accountants as source of advisory and support service (Berry *et al*, 2006, Scott & Irwin,2009). Accounting services and functions are very important role to SMEs because they provide better management control and assist in decision-making, helping to access new market and maximise profits in the corporate world (Dorasamy *et.al*, 2010). Kamyabi and Devi (2011) explains that the outsourcing of accounting function has a significant impact on performance of the SMEs in Iran.

Executing accounting functions by SMEs in developing economy is fraught with lack of expertise on the part of the owners/managers (Dorasamy *et al*. 2010 ; Ismail, 2002 : Hasnah *et. al*, 2011). Thus, this lack of required accounting knowledge creates a serious barrier to performing the accounting function internally as stated under

strategic view for activities regarded as core to the survival of the business (Evaraert *et al.* 2010). Pitiably, most SMEs are unable to carry out the accounting functions internally because of in-adequate knowledge of accounting practice by the owners or managers. Most times they do not keep proper books of account and understand the data and figures obtained from financial reports. Thus, they are not aware or convinced of the usefulness of accounting and financial reporting framework for control and decision-making purposes (Ismail, 2002; Deakins *et al.*, 2001; Dorasamy *et al.*, 2010). Kamyabi & Devi (2011) find that the use of external accountants advisory services by SMEs in developing economy (of which Nigeria is one) is positively associated with the knowledge of owner or manager, technical competence, competitive intensity and complexity of market decision. Also when used the advisory services has a positive effect on SME performance.

Majority of SMEs in Nigerian economy cannot compete in an effective way due to their internal resource gap to execute their numerous business functions (UNIDO, 2003; ILO, 2003; IFAC, 2010). For example, resource- based view (RBV) argues that smaller firms are more vulnerable than larger firms because they lack the necessary resources and capability for survival and growth (Gooderham *et al.*, 2004). SMEs in global value chains are even more vulnerable as they often bear the brunt of the difficulties of the large firms (OECD, 2009). Indeed, SMEs face with resource gap and competitive pressures, they are forced to lessen their costs and create new opportunities through optimized utilization of external resources (Mahmoodzadeh *et al.*, 2009; IFAC, 2010). Evidently, outsourcing practices is the best way to reduce costs and create opportunity for growth (Jayabalan *et al.*, 2009). Outsourcing not only looks at overall business improvement and competitive advantages but also it will cut costs (Gilley *et al.*, 2004; Mahmoodzadeh *et al.*, 2009). Furthermore, outsourcing can add value through the higher quality available from external sources (Gilley & Rasheed, 2004; Gilley *et al.*, 2004; Jiang & Qureshi, 2006).

In the light of cutting cost and create opportunity for growth, accounting functions

outsource is an option for SMEs to sustain a competitive benefit in the competitive environment. SMEs in Nigeria often lack the necessary skills and resources to carry out accounting functions in-house thus, gaining access to the expertise and specialized knowledge of the professional accountants clearly was the major reason to outsource (Aremu & Adeyemi, 2010). In this context, Ismail and King (2005) claim that external accountants can assist SMEs operating in a competitive environment, to integrate operational considerations within long-term plans to enhance their profitability and sustainability. Furthermore, Devi and Samujh (2010) state that in more complex conditions, external accountants are in a unique position to provide approaches and assist SME owner/managers to achieve their business objective of profit-maximization.

Transaction cost economics (TCE) theory has become as a standard framework that describes drivers (impetus) for the reason why some SMEs outsource their accounting functions to external accountants (exchange partners), and how professional accountants can help them to diminish transaction costs (Carey et al., 2006; Everaert *et al.*, 2010). According to TCE, the major drivers for accounting functions are broadly divided into three thus: assets specificity employed for the accounting functions, uncertainties surrounding the accounting functions and frequency of accounting functions. There are costs attached to these drivers and which must be minimized for the organisations to achieve their profit-maximization motive.

The Resource Based View (RBV) has become another prominent framework describing another different set of drivers as to why some SMEs outsource their accounting functions to external accountants (exchange partners) in competitive environment (Gooderham *et al.*, 2004). Major thrust of RBV is the organizations capability in achieving the business objective of profit-maximization. The usual question is does the organization possess the required skill and knowledge to drive home the business objectives? Hence RBV broadly divide the drivers for accounting

functions into two thus: capability complementarity from the exchange partners and strategic relatedness with the exchange partners. However, TCE and RBV are employed as independent methods for outsourcing decision (McIvor, 2009), but it would be strategic to combine these two views and treat them as complementary for outsourcing decision (Madhok, 2002; Gottschalk & Solli-Sæther, 2006; McIvor, 2009). Given that, the nature of accounting services is people-intensive (Everaert *et al.*, 2010), and internal resource gap and competitive environment faced by SMEs (Gooderham *et al.*, 2004; IFAC, 2010), it is interesting to investigate the relationship between these identified accounting outsource drivers and the financial performance of SMEs in Nigeria.

1.3 General Objective

The aim of this study was to investigate the relationship between accounting outsource drivers and the financial performance of small and medium enterprises in Nigeria.

1.3.1 Specific Objectives

The specific objectives are:

- 1) To establish the relationship between asset specificity employed for accounting functions and the financial performance of SMEs in Nigeria.
- 2) To examine the relationship between uncertainties surrounding accounting functions and the financial performance of SMEs in Nigeria.
- 3) To evaluate the relationship between frequency of accounting functions and the financial performance of SMEs in Nigeria.
- 4) To assess the relationship between capability complementarity received from exchange partners and the financial performance of SMEs in Nigeria.
- 5) To determine the relationship between strategic relatedness created with the exchange partners and the financial performance of SMEs in Nigeria.

- 6) To evaluate the moderating capacity of firm size on the relationship between Accounting Outsource Drivers and the financial performance of SMEs in Nigeria.
- 7) To evaluate the moderating capacity of firm age on the relationship between Accounting Outsource Drivers and the financial performance of SMEs in Nigeria.

1.4 Research Hypothesis

In satisfying the above-mentioned objectives, the following set of hypotheses were pertinent:

1. **H₀:** There is no significant relationship between asset specificity employed for accounting functions and the financial performance of SMEs in Nigeria.
2. **H₀:** There is no significant relationship between uncertainties surrounding accounting functions and the financial performance of SMEs in Nigeria.
3. **H₀:** There is no significant relationship between frequency of accounting transactions and the financial performance of SMEs in Nigeria.
4. **H₀:** There is no significant relationship between capability complementarity received from exchange partners and the financial performance of SMEs in Nigeria.
5. **H₀:** There is no significant relationship between strategic relatedness created with the exchange partners and the financial performance of SMEs in Nigeria.
6. **H₀:** There is no significant moderating capacity of firm size on relationship between accounting outsource drivers and the financial performance of SMEs in Nigeria.
7. **H₀:** There is no significant moderating capacity of firm age on relationship between accounting outsource drivers and the financial performance of SMEs in Nigeria.

1.5 Justification of the Study

The concept of outsourcing, being one of such weapons, has not received commensurate attention as a vital tool for re-positioning SMEs in Nigeria for remarkable performance. Unfortunately the practice of outsourcing has not been fully

embraced by most small and medium businesses in Nigeria as a means of managing their costs and strategically re-positioning themselves.

Most SMEs in Nigeria have not fully appreciated that most accounting processes can be outsourced. What this means is that they engage in activities, which do not add value to their business and in which they don't have competitive ability and leaving their core competent areas to suffer. They incur unnecessary costs and do not benefit from outsourcing of accounting services. Some of them do not enjoy the services of accounting professionals and experts that are available through outsourcing. They cannot engage the services of qualified accountants to handle their accounting processes on permanent employment basis because of the financial involvement. Furthermore, some of these companies are not aware of outsourcing risks and necessary procedures/measures to eradicate or minimize such attendant risks. Hence this study, with particular focus on Nigeria, will provide some useful information to the Nigerian SMEs owners/managers, the policymakers, the academicians/researchers and the business consultants in making informed decisions from time to time.

Therefore, this work contributes to this stream of studies on outsourcing of business functions by extending earlier conceptualizations of outsourcing based on economizing transaction costs, such as: asset specificity, uncertainties, frequency of transactions to include factors that influence the selection and integration of capabilities from intermediate markets (Jacobides, 2004). In particular, this study will consider the complementarity of capabilities and strategic relatedness as two important conditions that establish a resource-based context for strategic outsourcing of accounting functions by Nigerian SMEs. These firms would be able to evaluate internally accessed capabilities and those capabilities available externally from intermediate markets, and consider how they might best be integrated to transform the entire organization for greatest value to the delight of customers and other stakeholders.

1.6 Scope of the study

This study combined two basic theoretical considerations (namely, Transaction Cost Economies and Resource Based View) in providing better conceptualization of the relationship between accounting outsource drivers and the financial performance of SMEs in Nigeria. This approach enabled the researcher to consolidate the two concepts outsourcing and financial performance from different broad views and sub-scaled them into specific perspectives such as asset specificity employed for accounting functions, uncertainties surrounding accounting functions, frequency of accounting transactions, capability complementarity received from the exchange partners and strategic relatedness created among the exchange partners.

The target population is SMEs operating in Southern Region of Nigeria. This region consists of three out of six Geo-political Zones in Nigeria which include: South-East (SE), South-West (SW) and South-South (SS). The major reason for the selection of this region was because it houses almost the first three most populated states for all the identified SME-sectors surveyed, see Table 1b in Appendix (SMEDAN-NBS, 2010). The region is clearly favored by the presence of Atlantic Ocean which facilitates import-export businesses. Hence, the region is the commercial zone of the country. In the light of this, the target population was 5,907 SMEs domiciled in the Southern Nigeria. Both primary and secondary data were collected and analysed using Structural Equation Modelling (SEM) to aid generalizing the findings of the study. Furtherance to this, the study considered the moderating effects of firms age and firms size on the predictor variables were examined. The findings from all these interactions were highlighted and discussed on the premise of the underlying theories and previous empirical studies. This eventually assisted the researcher in making recommendations and highlighting potential areas for future research exploits.

1.7 Limitations of the Study

The quantitative study does explain 73.5% variance in the dependent variable. This suggests there are other important predictors of firms financial performance that are not represented in researchers database. For instance, managers make other decisions and put in place other practices that affect performance, and perhaps interact with outsourcing decisions. Another limitation is that only a single measure of financial performance was used that is, Return on Capital Employed (ROCE) whereas there are other numerous measures of a firms financial performance such as Return on Assets, Return on Sales, Liquity ratios, Asset Utilisation ratios, Debt Management ratios among others. The research is not able to provide information on the consistency of the relationship of the Independent Variables with other measures of SMEs financial performance which were not considered in this study.

A further limitation is associated with the qualitative of both primary and secondary data collected. Researcher, for the primary data, asked respondents to retrospectively assess their outsourcing decisions and outsourcing processes, with our time period of interest going back some five years. Although the researcher ensured that the respondents were experienced on their jobs, not all of them had been in place for the full five years of study. Furthermore the researcher did not ask for specific numbers, which might be hard to remember, but focused on events and trends. In addition we used single person (Owner or Manager) for each respondent organisation which may have resulted in somewhat biased answers. This selection did not negatively affect the quality of the responses as the respondents in this group are the drivers of their respective organization who are capable to give correct responses and they were promised that the research was being carried out for academic exercise only.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The entire chapter reviews the literature related to the key study variables as depicted in the conceptual framework. The chapter also looks into the linkages in addition to establishing the relationships among these variables. Empirical studies related to the study variables will be reviewed in order to lay down ground for the research. The chapter also attempts to justify the study in addition to reinforcing and underpinning the conceptual framework.

2.2 Theoretical Review

Over the years, numerous theories have been brought to bear on the subject of outsourcing of business processes. The researcher has identified the major theories that best frame outsourcing and succinctly highlighted salient points that was used in the course of this study.

2.2.1 Transaction Cost Economics Theory

According to Williamson (1999), the total cost incurred by a firm can be grouped largely into two components—transaction costs and production costs. Transaction costs, often known as coordination costs, are well defined as the costs of all the information processing necessary to coordinate the work of people and machines that perform the primary processes, whereas production costs include the costs incurred from the physical or other primary processes necessary to create and distribute the goods or services being produced.

A number of different kinds of transaction costs exist. Search and information costs are costs such as those incurred in determining that the required good is available on the market, which has the lowest price, etc. Bargaining costs are the costs required to

come to an acceptable agreement with the other party to the transaction, drawing up an appropriate contract, etc. Policing and enforcement costs are the costs of making sure the other party sticks to the terms of the contract, and taking appropriate action (often through the legal system) if this turns out not to be the case. Most empirical studies assume that both parties can produce at nearly identical production costs and focus on transaction costs, that is, the costs of running the service, including the **ex-ante costs** of negotiating a contract and the **ex-post costs** of monitoring performance and providing feedback (Williamson, 1991).

Transaction Cost Economics Theory is based on several assumptions. The most important are bounded rationality and opportunism. Bounded rationality is the assumption that decision makers have constraints on their capabilities and limitations of their cognitive rationality (Simon, 1957). Although decision makers often intend to act rationally, this intention may be limited by their limited ability to acquire, process, interpret and communicate information. In addition, the assumption of bounded rationality is particularly important in cases of uncertainty surrounding the transaction, such as environmental (external) and behavioral (Internal) uncertainties. Numerous studies demonstrated that the behavioral and environmental uncertainties have great impact on the choice of the form of governance.

The second important assumption of TCE is opportunism which means an actor, if he has the opportunity – may act to serve his own interests at the expense of the exchange partner (Williamson, 1981). Opportunism describes a condition of self-interest seeking with guile that includes propensities to disseminate, distort, fail to disclose, and otherwise act in an untrustworthy and even fraudulent manner for purposes of the translators own gain (Wang, 2002). The assumption of opportunism can also be found in the principal–agent theory and the bureaucratic theories. The assumption of opportunism has some connection with the assumption of bounded rationality, because the decision maker has imperfect information about exchange partner. In a business relationship each party has information about itself that the

other party does not have access, what is called private information (information asymmetry)

We distinguish between ex ante and ex post opportunism in TCA, depending on whether we analyze before or after the contract is entered. Ex ante implies that one of the parties (A) retains important information, or that the party claims to be another type than he really is – this is called misrepresentation. Under such circumstances, the other party (B) risks to choose a non-optimal exchange partner. This form for opportunism leads to adverse selection. A well-known example is the second hand car salesman, who has private information about the quality of the car. The buyer may thus be led to choosing a car of inferior quality. Whilst, Ex post opportunism may occur after the agreement has been established. This form for opportunism is called moral hazard. For example, A retailer may have agreed on promoting a product from a supplier, by recommending this product to the customers. If the retailer does not comply with this agreement, he/she demonstrates a moral hazard.

Transaction cost economies (TCE) have been the major framework employed for the study of firms manufacturing outsourcing decisions (Klein, 2005). The decision to outsource or internalize depends on the comparative transaction cost to avail that service such as the ex-ante negotiation cost and the ex-post performance and feedback (Everaert et al., 2010; Williamson, 1985). In the competitive market many potential suppliers exist and market pressure to reduce the efforts of firms to monitor the supplier opportunistic behavior that will encourage firms to outsource their operations. Conversely, if the market is failing to provide the availability of numbers of supplier, it is most likely that the supplier will behave opportunistically (Everaert *et al.*, 2010). In such case, a firm can reduce their transaction cost by switching from external suppliers (outsourcing) to its own employees in order to monitor and control their behavior properly with the aim of minimizing the transaction cost (Hennart, 1989). However, in practice both TCE and RBV have the significant effect on outsourcing functions (McIvor, 2009).

This theory assist to show the breakdown of the total transaction cost of every SME into relevant groups necessary to providing informed judgment on outsourcing decisions. For instance, the greater the investment (cost) in specialized assets and uncertainties surrounding a transaction, the greater the tendency to carry such transaction within the firms boundary (in-house). Also, this theory will helps to highlight the presence of opportunistic behavior of the experts outside the organization because of the imperfection in the market.

2.2.2 Resource-Based / Core Competency Theory

Wernerfelt,(1984) analysis shows that the strategy of a firm should be viewed in terms of positioning its resources and not its products and markets, in contrast to Porters (1980) analysis. The author defined resources as anything that can be perceived as a strength or weakness of a particular firm, including brands, existing internal technological expertise, trained employees, trade contracts, machinery, efficient procedures, and capital, among others. Wernerfelt, (1984) was interested in defining strategies that would ensure a competitive advantage and suggested that firms should analyze the range of the current and future resources of the firm that would have an impact on their competitive advantage.

As Grover *et al.* (1998) explain, the essence of a resource-based theory is that given resource heterogeneity and resource immobility and satisfaction of the requirement of value, rareness, imperfect imitability, and non-substitutability, firms resources can be a source of sustained competitive advantage. Resource-based theory treats enterprises as potential creators of value-added capabilities. Understanding the development of such capabilities and competences involves viewing the assets and resources of the firm from a knowledge-based perspective (Conner & Prahalad, 1996; Prahalad & Hamel, 1990). Prahalad and Hamel (1990) concentrate their attention on the collective learning processes of the organisation, on the development of skills and technology integration. Their concept of core competences is related to mechanisms by which firms learn and accumulate new skills in order to develop

business capabilities to outperform competitors. One of the objectives of the theory is to help managers to appreciate why competences can be perceived as a firm's most valuable asset and, at the same time, to understand how those assets can be used to improve business performance. A resource-based view of the firm accepts that attributes related to past experiences, organisational culture and competences are critical for the success of the firm (Campbell & Luchs, 1997; Hamel & Prahalad, 1996). Conner (1991) suggests that an in-house team is likely to produce technical knowledge, skill, or routine that fits better with the firm's current activities.

The question of which activities can be outsourced, based on a strategic view of available resources has been systematized by Quinn and Hilmer (1994). For these authors, firms must focus their resources on a set of core competencies in which they have definite advantages over their competitors and offer unique value to their customers. In addition, the authors recommend the outsourcing of activities for which the firm has no critical strategic need or special skills. According to Teece (1986), if outsourcing exposes the firm to a leakage of proprietary information (i.e., knowledge that is not patentable), then the firm will take self-protective measures to reduce the loss of such knowledge. Goods and services can be contracted out in a regime in which proprietary knowledge is secure. Otherwise, they will be internally conducted within the firm. According to Lieberman and Montgomery (1988), the internal mechanisms that protect the firm's knowledge are superior to those present when contracting between firms.

Barney (1991) argues that in order to provide competitive advantage a resource must fulfil four criteria: 1) Valuable: the resource must have strategic value to the firm (for example, by exploiting opportunities or neutralising threats); 2) Rare: the resource must be unique or rare to find amongst the current and potential competitors of the firm; 3) Imperfect imitability: It must not be possible to perfectly imitate or copy the resource (because it is difficult to acquire; because the link between the capability or the achieved sustained competitive advantage is ambiguous; or because it is socially complex); 4) Non-substitutability: competitors cannot substitute the resource by another alternative resource to achieve the same results.

The concept of core competences has been developed on the basis of the resource-based theory. Prahalad and Hamel (1990) defined the core competencies as the collective learning in the organisation, especially how to coordinate diverse production skills and integrate multiple streams technologies. The application of concept of core competences in outsourcing became very popular among researchers. The concept has been predominantly use to develop and test various outsourcing decision frameworks arguing that the core activities shall remain in-house. Learning and communication premises of the concept made it also applicable in the Managing relationship and Reconsideration phases. Vendors competences are assumed to be one of the most important factors that influence success of an outsourcing arrangement (Levina & Ross, 2003; Feeney *et al.*, 2005).

Every SME is, as a matter of fact, an administrative structure that connects and coordinates the activities of many individuals and groups. Hence the strategic moves of every SME therefore should be how to re-position its available resources among her core-competencies in order to record a sounding competitive edge over her rivals. Consequently, this theory sheds light on the reasons behind retaining core-activities within the organization while the less critical activities are outsourced to the experts externally.

2.2.3 Resource Dependence Theory (RDT)

This theory was originally formalized to discuss the relationships between organizations. From the competitiveness point of view, RDT proposes that companies exchange resources to reduce uncertainty (Oh, Gallivan & Kim, 2006). Companies who lack critical resources form relationships with others in order to obtain these resources. Information System (IS) outsourcing is a very typical example of the application of RDT between clients and vendors. The level of the resource dependency is formulated in terms of the resource value, number of candidate vendors supplying these resources, and the switching cost between vendors

in case of failure. The degree of this dependency can be seized through the contract clauses. A higher number of 27 contract clauses means the client is more dependent on the vendor. If the firm acquires these resources, the dependency level decreases. In addition, this may increase the dependency of others on the particular firm. Therefore, we can imply that RDT is a power theory as well.

The relations between the project size, the contract size, the probability of risks, and the amount of switching costs are all directly proportional. Lacity and Willcocks (1998) in an empirical study of 33 outsourcing cases, demonstrated that short-term contracts (small contracts) were more effective than long-term contracts in terms of these risks. The length of the contract may not be proportional to the size of the contract, but they are correlated. Definitely, contracts with long duration create more problems since technology and market fluctuations are more probable (Lacity, Willcocks & Feeny, 1995). Moreover, as the size and duration of the contract increase, the monitoring costs proportionally increase.

2.2.4 Modern Structural Organization Theory

Organizations are rational institutions whose primary purpose is to accomplish established objectives; rational organizational behavior is achieved best through systems of defined rules and formal authority (Bernard, 1990). Organizational control and coordination are key for maintaining organizational rationality. There is a best structure for any organization, or at least a most appropriate structure in light of its given objectives, the environmental conditions surrounding, the nature of its products and/or services, and the technology of the production process. Most problems in an organization result from structural flaws and can be solved by changing the structure.

Structural organization theory is concerned with vertical differentiations – hierarchical levels of organizational authority and coordination, and horizontal

differentiations between organizational units – such as those between product or service lines, geographical areas, or skills. However, more dynamic conditions – situations in which the environment changes rapidly – require the use of an organic form of organization where there is less rigidity, more participation, and more reliance on workers to define and redefine their positions and relationships.

Peter & Scott (1962) assert that all organizations include both a formal and informal element. The informal organization by its nature is rooted in the formal structure and supports its formal organization by establishing norms for the operation of the organization that cannot always be spelled out by rules and policies. It is impossible to know and understand the true structure of a formal organization without a similar understanding of its parallel informal organization.

Arthur & Lorsch (1968) pose some pertinent questions for answers and they include; 1) should an organization be structured according to product or function? 2) Should all specialists in a given function be grouped under a common boss, regardless of differences in products they are involved in, or should the various functional specialists working on a single product be grouped together under the same superior. They concluded that either structural arrangement can be appropriate, depending upon the organizations environment and the nature of the organization itself.

Mintzberg (2009) synthesized many schools of organizational management theory and created a model of organizations with five interdependent parts: the strategic apex, the middle line, the operating core, the techno-structure, and the support staff. Burton and Obel (2004) study the effects of technology on the following six dimensions of organization: formalizations, centralizations, complexity, configuration, coordination and control, and incentives that various dimensions of technology have on organizational design.

Peter and Scott (1962) in their work of Social organization refer to the ways in which human conduct becomes socially organized, that is, to the observed regularities in the behavior of people that are due to the social conditions in which they find themselves rather than to their physiological or psychological characteristics as individuals.

The relevance of this theory to this study is that beginning of administrative wisdom is the awareness that there is no one optimum type of management system. Situations in which the environment changes rapidly thus require less corporate rigidity, more participation, and more reliance on workers to define and redefine their positions and relationships. Hence the theory acknowledges the existence of both formal and informal elements and to some extent, the existence of external environments, especially technology. Therefore, outsourcing of a business process, like accounting function, definitely has some impact on the hierarchical structures of the organization. Therefore the organization structure determines what part of and when to outsource accounting functions just like any other business process.

2.2.5 System Theory of Organizations and Environments

The primary focus of research and theory building shifted from the internal characteristics of organizations to the external dynamics of organizational competition, interaction, and interdependency. The organization as open systems perspective views organizations as systems of interdependent activities embedded in and dependent on wider environments (Thompson, 1987). A system is an organized collection of parts united by prescribed interactions and designed for the accomplishment of specific goals or general purposes. System theory views and organization as a complex set of dynamically intertwined and interconnected elements, including its inputs, processes, outputs, and feedback loops, and the environment in which it operates and with which it continually interacts (Cohen & Levinthal, 1990). Therefore a change in any element of the system causes changes in

other elements. The interconnections tend to be complex, dynamic, and often unknown; thus, when management makes decisions involving one organizational element, unanticipated impacts usually occur throughout the organizational system.

Classical organization theorists saw organizations as rational but closed systems that pursued the goal of economic efficiency. Organizations are not static, but are rather in constantly shifting states of dynamic equilibrium. They are adaptive systems that are integral parts of their environments. Organizations must adjust to changes in their environment if they are to survive; in turn, virtually all of their decisions and actions affect their environment (Katz & Kahn, 1996).

Cohen & Levinthal (1990) explain that one cannot understand the structure and behavior of an organization without understanding the context within which it operates. They explain further that no organization is self-sufficient, and thus organisations must engage in exchanges with their environment in order to survive. Organizations need to acquire resources from their environment, and the importance and scarcity of these resources determine the extent of organizational dependency in and on their environment. For example, information is a resource organizations need to reduce uncertainty and dependency, and thus organizations seek information to survive. Many organizational troubles stem from inaccurate perceptions of external demands or from patterns of dependence on the environment. After all, anyone can make decisions or take actions – it requires more skill to be correct.

Relevance of this theory to this study is that the traditional closed-system view of organizations has led to a failure to fully appreciate the interdependencies and interactions between organizations and their environments. The environment supplies the organization with the resources input and also provides avenue for the organization to dispose its outputs for a reasonable consideration. Also, the organization can structure its hierarchy in such a way to push some of its business

processes back to the environment in form of outsourcing. This afford more time to the business managers to be more focused on core functions of the business.

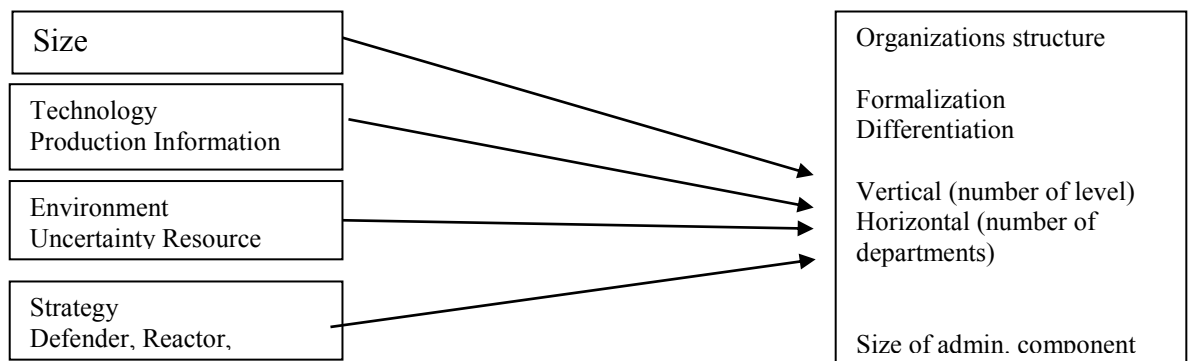
2.2.6 Contingency Theory of Modern Organisation

This modern organization theory is based on the situational approach to the organization. The model claims that there is no any universal guidance which can be deemed suitable for all type of situations. The systems of the Organization are inter-related with the environment. This model suggests that different environments require different organizational relationships for optimum effectiveness. In the environment there are various factors which are taken into consideration i.e social, legal, political, technical and economic factors (Ohmae,1989).

Modern organization theory reflects a search for patterns of relationships among subsystems and a contingency view. The system theory delivers us a macro paradigm for the study of organization but they involve relatively high degree of generalization. The contingency view provides inter-relationships among subsystems. The contingency view of organizations suggests that an organization is a system composed of subsystems and demarcated by identifiable boundaries from its environment. The contingency theory therefore seeks to understand the inter-relationships within and among subsystems of the organization. It also seeks to understand inter-relationships between the organization and its environment. The contingency view recognizes that environment and internal subsystems of each organization are somewhat unique and they both provide a basis of designing and managing specific organizations. The contingency model represents a middle ground between (1) the view that there are universal principles of organization and management and (2) the view that each organization is unique and that each situation must be analyzed separately (Ohmae, 1989).

The fundamental assumption of Contingency model is that there should be congruence between the organization and its environment and among the various subsystems.

The main managerial role is to maximize this congruence. The suitable fit between the organizations and its environment and the proper internal organization design can bring greater effectiveness and efficiency in the organization (Kast & Rosenweig, 1972).



Source: (Kast and Rosenweig, 1972)

Figure 2.1 Contingency Model

As shown in the above figure, there are four major factors of contingency model, which are considered vital in terms of co-ordination and cooperation within and outside the organization, i.e Size, Strategy, Technology and Environment. An organizational goal refers to ends and the strategy refers to both mean and ends. The strategy is viewed as a determinant factor of the organizational goals and objectives and the adoption of course of action along with proper allocation of resources to achieve these goals. The size is viewed as determinant factor that influences the structure of the organization. The size has a significant influence on vertical differentiation and increase in formalization appears to be related closely to increase in organizational size. The technology is used in the process and method that transforms inputs into outputs in the organization. Interdependency created by a technology is important in determining an organization structures (Kast & Rosenweig, 1972).

The organizations with mechanistic structures were characterized by high complexity of formalization and centralization. They performed routine tasks and dependent on programmed behavior and slow in responding to the environment. Contrary to that, Organic structures were characterized relatively flexible and adaptive based on expertise and knowledge rather than on authority of position. There is loosely defined responsibility rather than rigid job definitions and emphasize on exchanging information rather than on given directions. The above contingency theory factors affect the degree of coordination, cooperation that leads to the efficiency of organization. The essential problem is that how these contingency factors are adapted in way that result better performance and cause efficiency. Robbins and Judge (2007) clearly state that communication is the focal point for the application of systems and analyzing to the functioning of an organization. The communication process in the organization is consisting of seven steps i.e. message, encoding, transmitting, receiving, decoding, understanding and feedback.

The relevance of this theory to the study is to ascertain degree of every organization structure to adjust to changing environment. For instance, where the situation in the environment demands massive outsourcing of some parts of the business process which are presently carried out in-house in order to be able to cope with customers demand surge, what is the adaptability of the organization structure to this new order? Is the organization mechanistic or organic? Determination of this structure will assist knowing the extent of the organization coping with the outsourcing phenomena.

2.2.7 Principal-Agent Theory

Information asymmetry is at the core of principal agent theory. An agency relationship exists when a government (the principal) contracts with a vendor (the agent) for the production / delivery of goods or services in which the vendor has

expertise (Finkle, 2005; Larbi, 2006). Principal-agent theory tries to resolve the problem that arises when the desires and goals of the principal and agent are in conflict, and when it is difficult or expensive for the principal to verify the agents performance. Such difficulties arise due to incomplete information, incompleteness of the contracts, and the problem of monitoring behavior (Gauld, 2007). The theory assumes that the principal and agent are engaged in cooperative behavior, but have differing attitudes toward risk (Eisenhardt, 1989), and provides a guide on how both parties can best structure a relationship to maximize the chances that the goals of the principal are achieved. Central to this assumption is a belief that the agent does not share the principals goals and thus will not accomplish them adequately if left to its own devices, a behavior referred to as shirking.

According to Eisenhardt (1989), it is virtually impossible to eliminate shirking by the agent. Indeed Kettl (1993) suggests that shirking exists irrespective of the degree of monitoring. Thus, the goal is not to completely eliminate shirking, but reduce it to a level, which ensures that the goals of the principal are achieved. Information asymmetry occurs when the agent has relevant information that the principal does not have. Such asymmetric information usually occurs with regards to possible quality and cost configurations of projects in the contracting process (Finkle, 2005). This raises the probability that the agent can behave in ways that enhances opportunism (Eisenhardt, 1989). A consequence of such opportunism is agency costs, which are costs that arise when the agent acts self-interestingly, and in bad faith. Agency costs help to address contractual difficulties, which arise from information asymmetries and anticipated agent opportunism.

Agency cost covers all costs associated with addressing potential or actual opportunism, and includes devising mechanisms to monitor agent behavior, and to ensure that the agent behaves as stipulated in the contract (Stan *et al.*, 2007). This may consist of providing incentives and/or investing in monitoring of agents performance. Studies suggest that incentive-based contracts can be used to motivate agents. Indeed, Zou *et al.*, (2003) concludes that when risk is moderate, more

incentives should be used to motivate agents to act in the principals best interests. However, as the level of risk increases, more fixed fees and fewer incentives may be more effective.

Two central themes in principal-agent theory are moral hazard and adverse selection. Moral hazard refers to lack of effort on the part of the agent, since it is impossible for the principal to monitor all the agents actions (Gauld, 2007). Adverse selection refers to the misrepresentation of ability by the agent to the principal. The agent may claim to have certain skills and abilities when he or she is selected to perform the contract. Adverse selection arises because the principal cannot completely verify these skills or abilities either at the time of selection or while the agent is working (Zeng *et al.*, 2009). In the case of unobservable behavior (due to moral hazard or adverse selection), the principal can discover the agents behavior through incurring agency costs, by investing in information systems, such as budgeting systems, reporting procedures, board of directors, and additional layers of management (Zeng *et al.*, 2007). Such investments reveal the agents behavior to the principal.

The principal-agent model focuses on determining the contract that is most efficient under varying levels of outcome uncertainty, risk aversion, information, and other variables. It tries to determine whether the optimal contract between the principal and agent is based on behavior or outcome. It assumes an easily measured outcome, and an agent who is more risk averse than the principal (Eisenhardt, 1989). A case in point is when the principal knows what the agent has done. Given that the principal is buying the agents behavior, a contract based on behavior is more efficient. An essential element of the task performed by the agent is the programmability of the task. Task programmability influences the ease of measuring behavior.

Programmability is defined as the degree to which an appropriate behavior by the agent can be specified in advance (Eisenhardt, 1989; Zeng *et al.*, 2007). For example, the job of a retail sales cashier is much more programmed than that of a high-technology entrepreneur (DeHoog & Salamon, 2002). The behavior of agents

engaged in more programmed jobs is easier to observe and evaluate. Very programmed tasks readily reveal agent behavior. Therefore, the more programmed the task, the more attractive are behavior-based contracts because information about the agents behavior is more readily determined (Finkle, 2005; Eisenhardt, 1989).

Alternatively, a contract can be based on outcome. Outcome-based contracts motivate behavior by aligning the agents preferences with those of the principal, but at the price of transferring risk to the agent based on the level of outcome uncertainty. Other factors besides behavior can affect outcome, such as, government policies, economic climate, competitors actions, and so on. (Eisenhardt, 1989; Zeng *et al.*, 2007; Stan *et al.*, 2007). When outcome uncertainty is low, the costs of shifting risk to the agent are low and outcome-based contracts are attractive. As uncertainty increases, it becomes increasingly expensive to shift risk despite the motivational benefits of outcome-based contracts. Thus, when outcomes are difficult to measure outcome-based contracts are less attractive. In contrast, when outcomes are readily measured, outcome-based contracts are more attractive (Bessire, 2005).

It seems reasonable to assume that when principals and agents engage in a long-term relationship, the principal will learn about the agent more easily, thereby reducing information asymmetry. In such a case, behavior-based contracts are more appropriate. On the other hand, in short-term agency relationships, the information asymmetry between principal and agent is likely to be greater, thus making outcome-based contracts more attractive. Consequently, the length of the agency relationship is positively related to behavior-based contracts and negatively related to outcome-based contracts (DeHoog & Salamon, 2002; Gauld, 2007; Eisenhardt, 1989). Several studies indicate that long - term relationship enhances trust, and contributes to better contracting outcomes.

Indeed, Domberger (1998) suggests that contracting out appears to yield the greatest benefit when it combines market discipline with long-term, cooperative relationships, by building trust between both parties. A high level of trust is important for

establishing a cooperative relationship between a principal and an agent, and establishing a workable contract. Langfeild-Smith *et al.* (2000) also argue that close cooperative relationships can be an important contributor to the success of contract management. Additionally, OLooney (1998) indicates that contract managers should explore the possibility of trust-based management as long as there are clear expectations on the part of both parties and a desire by both parties to build trust-based relationships. Long-term cooperation in contractual relationships is more effective in a business environment characterized by trust, interdependence and commitment (Izquierdo & Cillan, 2004).

This theory will assist to explaining the information asymmetry that exists between the owners of SMEs and their managers which usually result to moral hazard and adverse selection on the part of the business managers (agents). Outsourcing operation is one of the areas where the moral hazard and adverse selection of the vendor could be perpetrated.

2.2.8 Relationship Theory

According to Macneil, a relationship between two actors is a set of norms developed by parties and these norms will to a large degree determine the behavior of the relationship. However, these norms may change over time; it is believed to occur as long as their continuance is valued. The purpose of Relationship Theory (RT) is not to predict the governance mode of a relationship rather it is to describe the behavior in the relationship. The theory is normative in the sense that it describes the behavior that the exchange parties should have. Whereas the transaction is the unit of analysis in the TCA and the unit of analysis in RT is represented by the relation between the two actors. This implies that the RT focuses on not only for the seller or the buyer relationship but also some other relations for instance, service sector. The norms originally presented by Macneil are described by Blois, (2002). Macneil classifies contracts on a spectrum from relationship theory, exchanges to relational norms with common contractual exchanges lying between these extremes. These norms or

principles represent Macneils description of how the behavior between the actors should be guided. Some of the most important norms are: Role integrity, Preservation of the relationship, Harmonization of relational conflict, Supra-contractual relations, Proprietary of the means.

The RT is static, in the sense that how the contractual relationship at any time is, will be determined by the behavior of the parties. There is no attempt to describe how the relationship is initiated, nor how the relationship develops, nor how the parties may adapt under new circumstances. Heide and John, (1992) conclude that Macneils classification scheme contains norms that are at least partially overlapping, and they suggest the following categories of norms: Flexibility, Information exchange and Solidarity.

Relationship marketing can be described as the process of creating, maintaining, and strengthen the relationship with customers and other relevant actors. Dwyer *et al.*, (1987) suggest that the basic characteristics of a relationship are as follows: a) A relationship is something that last over time, which involves that each transaction has to be considered based on the history and future expectations of the relationship; b) future relationship/cooperation will be based on a set of implicit and explicit common expectations and confidence/trust. c) The parties in the relationship can be expected to develop complex personal/social relationships – accordingly, the relationship may also have non-economical elements. Relationship marketing describes a process over time, which involves a *dynamic* analysis. In order to describe this process in accounting outsourcing, three central concepts are used: trust, cooperative behavior and commitment. Morgan & Hunt (1994) stated that trust and commitment are necessary assumptions in order to succeed with relationship marketing.

2.2.9 Theory of Firm

Economic theories of the firm have provided much of the language and concepts of modern corporate governance and corporate law discourse. Adam Smith is regarded as the most important pioneer. Smith identifies the benefits brought by division of labour and specialisation in society. According to Smith, firms exist to coordinate and motivate specialised peoples economic activity.

Coase (1937) explains the existence of firms by the existence of transaction costs: The main reason why it is profitable to establish a firm would seem to be that there is a cost of using the price mechanism. The most obvious cost of organising production through the price mechanism is that of discovering what the relevant prices are. This cost may be reduced but it will not be eliminated by the emergence of specialists who will sell this information. The costs of negotiating and concluding a separate contract for each exchange transaction which takes place on a market must also be taken into account.(Coase, 1937). Theories based on the notion that the firm is just a set of contracts among factors of production are a radical departure from the earlier theories in other respects but still regard the firm as a production function. Ostrom (1990) mentions some firms (law firms and cooperatives) as examples of common resource pools. When the firm is studied as a common resource pool, it is implicitly assumed that it is a production function or a market.

According to Williamson, firms exist because all complex contracts are incomplete. The cost of completing transactions on the market increases, when their complexity increases, or when asset specificity increases (they involve assets that are worth more within a relationship between two parties than outside it). At some point, it makes sense to conduct transactions within the firm. On the other hand, there are limits to the size of firms (Arrow, 1985; Grossman and Hart, 1986). Williamson (1985) suggests that the transfer of transactions out of the market into the firm changes their governance (adaptability) and measurement (incentive) features. Three transaction characteristics are critical for the size of firms: frequency, uncertainty, and, in

particular, asset specificity (Williamson, 1985). Williamson is regarded as the originator of modern transaction cost economics.

This theory helps to show that SMEs are firms established to gainfully organize various factors of production which are obtained through the price mechanism in the market. The theory therefore, shows that apart from the cost of factor inputs, there exist other costs that include: cost of negotiation and concluding separate contract which must be incurred by SMEs to properly document and monitor the other party (expert outside the business).

2.2.10 Social Exchange Theory

One of the basic tenets of Social Exchange Theory (SET) is that relationships evolve over time into trusting, loyal, and mutual commitments. To do so, parties must abide by certain rules of exchange. Rules of exchange form a normative definition of the situation that forms among or is adopted by the participants in an exchange relation (Emerson, 1976). In this way, rules and norms of exchange are the guidelines of exchange processes. Thus, the use of SET in models of organizational behavior is framed on the basis of expectations of reciprocity and negotiated rules.

Generally speaking, a party can have at least three postures to another person (Blau, 1964; Homans, 1961): (a) independence (outcomes are based entirely on ones solo effort), (b) dependence (outcomes are based entirely on the others effort), and (c) interdependence (outcomes are based on a combination of parties efforts). Notice that complete independence and complete dependence do not imply a social exchange, as such. This is because an exchange requires a bidirectional transaction—something has to be given and something returned. For this reason, interdependence, which involves mutual and complementary arrangements, is considered a defining characteristic of social exchange (Cook *et al.*, 1993).

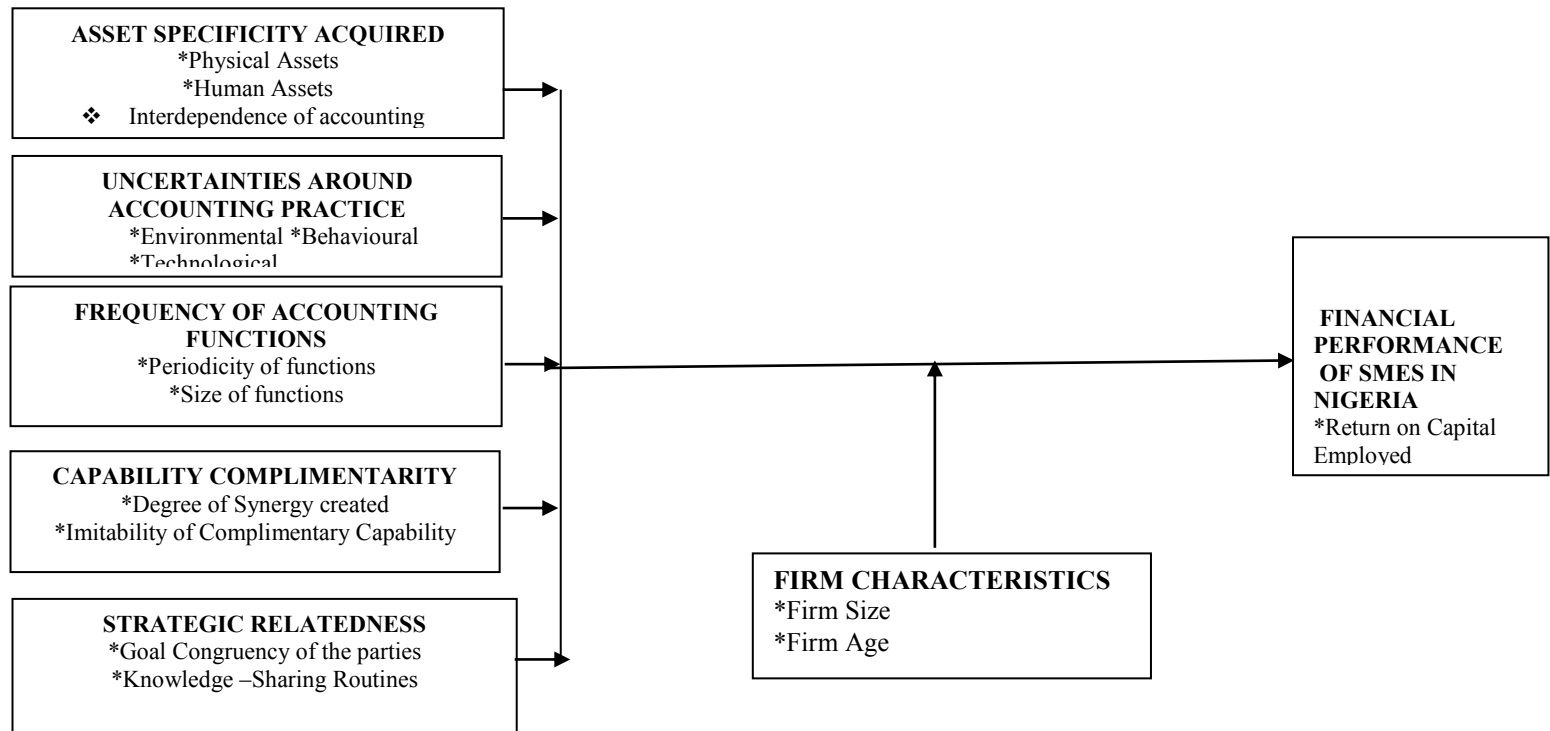
Parties of exchange may also negotiate rules in the hope of reaching beneficial arrangements (e.g., Cook & Emerson, 1978; Cook, Emerson, & Gillmore, 1983). Negotiated agreements tend to be more explicit and quid pro quo than reciprocal exchanges. In addition, the duties and obligations exchanged are fairly detailed and understood. It is also noteworthy that negotiated elements of exchange differ in that they may continue beyond short-term agreements and may or may not be bound by legal or contractual sanctions. Negotiated exchanges are often a part of economic transactions. For example, when one accepts a job, he or she is likely to negotiate the pay level. However, individuals in close relationships (social exchange) also may feel the need to negotiate—such as when team members negotiate tasks and responsibilities.

Overall, this research suggests that, although the norm of reciprocity may be a universally accepted principle (Gouldner, 1960), the degree to which people and cultures apply reciprocity principles varies. The theory has been used in combination with TCE to specifying switching behavior in the reconsideration phase. Social Exchange Theory assists to explain how outsourcing function among SMEs is a social exchange transaction between the firms and the external party. The transaction must be interdependent and be based on the expectation of reciprocity and negotiated rules. The negotiated rules are guidelines governing both parties to the outsourcing contract. The guidelines must be fairly detailed and understood by the parties involved. Furthermore, this theory allows the researcher to point out the need for the SMEs to realize that there is cost of monitoring and enforcing compliance from the external party. This is additional cost for the firm (SMEs).

2.3 Conceptual Framework

Effect of Outsourced Accounting Functions on firms financial performance are explained from various angles in the previous literature. A great amount of researches show that cost reduction is an essential factor determining the outsourcing decision. Henri de Groot (1998) suggests that declining transaction cost are a crucial

factor in explaining the observed increase in outsourcing. But Jane C. Linder and Martin I. Cole (2002) consider that the effects of outsourcing go well beyond the cost saving, it has changed the way the business goes to market. Consequently, Fei Chen (2005) approach which was adopted for this study explains that the internal motives of outsourcing include both the cost reduction and enhancing capabilities of the organization. This position was adopted in this study to investigate the effect of accounting outsourcing factors on the financial performance of SMEs in Nigeria.. The Conceptual framework for the study is given in figure 2.2.



Drivers for Outsourcing decision – Independent

Moderating Variables

Dependent Variable

Figure 2.2 Conceptual Framework –Outsource Drivers and Financial performance

2.3.1 Asset Specificity Employed for Accounting Functions

Asset specificity concerns opportunity costs of investments made to support an activity (Speklé, 2004). Central concern is whether investments made in specific assets can be redeployed (Williamson, 1985). If the assets cannot be redeployed, the investments will be considered a loss in case of determination of this activity that exploits these assets. Imagine, for example, machinery that can only produce one component. If it cannot be used for the production of anything else, nor be of any use in a similar organizational unit of another company, opportunity costs of investing in this machinery are significant and asset specificity is high. This situation gives rise to outsourcing decision problems. This situation creates undue dependencies that in turn leave room for opportunistic behavior of exchange partner. Hence, Asset Specificity is another factor that plays an important role while making the outsourcing decision by successfully applied valuable assets to specific transactions. For instance, assets specificity refer to expertise, competence, knowledge, skills and capabilities concerning the accounting functions. There are two types of specific assets including physical assets (land, equipment and machinery etc.) and human assets (skills, ability, knowledge etc.). To gain and sustain resources include physical technology, plants and equipment, geographic position, access to raw materials whilst human capital resource contains training, experience, judgment, intelligence and relationships inside individual, managers and workers in the firm.

According to Chang *et al.*, (2009) when asset specificity is low it is most likely that core business transactions might be governed by outsourcing. Moreover, the human asset specificity is a vital for internal audit and outsourcing accounting services from a professional accountant (Everaert *et al.*, 2010). Furthermore, Everaert *et al.*, (2010) found that there is a significant association between accounting outsourcing and asset specificity. Therefore, TCE and Strategic View literature argue that asset specificity is a vital part to consider in outsourcing decisions (Watjatrakul, 2005; Everaert *et al.*, 2010).

The proposition here is that when asset specificity of the accounting functions increases, firms are expected to internalise those functions for a good performance in terms of asset utilization (Speklé *et al.*, 2007). Conversely, low asset specificity of accounting functions would motivate firms to outsource accounting functions (Widener & Selto, 1999). Based on the above arguments, accounting functions should be externalised or outsourced when the organisations investments assets for executing the accounting functions are not specific or have low specificity (e.g., low firm-specific routines, knowledge, language and skills) (Everaert *et al.*, 2010; Espino-Rodríguez, *et al.*, 2008). In line with Nicholson *et al.* (2006), it is expected that, as accounting functions become more customised to a firm and more specialised, asset specificity rises and, accordingly, shifting accounting activities to a professional (external) accountant can be difficult and costly.

2.3.2 Uncertainties Surrounding Accounting Functions

Uncertainty or complexity surrounding an activity creates a lack of ex-ante knowledge about the activity. This knowledge concerns both processes (how best to carry out an activity) and outcomes (what results can we expect). Within TCE-based research, we encounter multiple guises of uncertainty. Generally, researchers distinguish environmental uncertainty and behavioural uncertainty (see Rindfleisch and Heide, 1997). Regardless of the type, the consequences are always a diminished capability to program activities (Speklé, 2004). When uncertainty is low, programming of activities is possible. In case of high uncertainty, outsourcing tasks appears difficult or even impossible and control has to be exercised in alternative ways. Note that high uncertainty is problematic because of bounded rationality. In the presence of uncertainty, the limits of rationality could be reached, so that it becomes too costly or impossible to obtain the information required (Williamson, 1985).

Accounting functions of every organization are surrounded by environmental, behavioural and technological uncertainties which depict the unpredictability and

instability of the workload involved due to the volatility of business activities (Everaert *et al.*, 2010; Nicholson *et al.*, 2006). For instance, if the firm cannot to predict the workload related to accounting practices (e.g. low predictability and stability of the workload related to accounting functions), the costs of transaction will be increased as a consequence of renegotiating and changing of the contractual agreements with a professional accountant (Everaert *et al.*, 2010; Lamminmaki, 2009). This needs time that the managements of the SMEs may not have or may not be able to reduce the flexibility needed to deal with these fluctuations in the accounting functions workload in a well-timed fashion (Nicholson *et al.*, 2006; Aubert *et al.*, 2004).

When environmental uncertainty in accounting functions rises, it makes it extremely costly to write and implement a contract with a professional accountant, which indicates all achievable future conditions (Everaert *et al.*, 2010). This produces many problems, which raise the costs of transaction (Aubert *et al.*, 2004). Therefore, if the costs of transaction become too high, the transaction will not occur and accounting functions will be in-sourced. In fact, when environmental uncertainty is too high, it will be impossible to agree on a contract with an accounting firm, thereby preventing professional accountants from processing accounting functions for SMEs (Nicholson *et al.*, 2006; Aubert *et al.*, 2004). In other words, if environmental uncertainty in accounting functions is lower, a higher degree of outsourcing of accounting activities is possible (Reeves *et al.*, 2010; Kotabe & Mol, 2009).

TCE perspective conjectures that in highly environmental uncertainty in accounting practices, firms prefer to process their accounting functions internally, believing that they can favorably answer to the market more quickly than professional accountants can do (Everaert *et al.*, 2006, 2010; Nicholson *et al.*, 2006; Aubert *et al.*, 2004). Therefore, the original argument maintains that a high environmental uncertainty in accounting functions, contracting will be incomplete, the costs of transaction will rise, and it is hard to attain an reasonable agreement with an external accountant (Kotabe & Mol, 2009; Nicholson *et al.*, 2006). For example, when the accounting

functions workload is less predictable and stable, an in-house accountant is able to answer more rapidly to these fluctuations than professional (external) accountant can (Everaert *et al.*, 2006, 2010; Williamson, 1991).

Behavioural uncertainty is defined as the difficulty of appraising whether the accountant performed the accounting functions correctly. High behavioural uncertainty increases the costs of the transaction as a result of writing, monitoring, enforcing contracts, negotiating, and all related tasks made to preclude opportunistic behaviour (Nicholson *et al.*, 2006) hence the firms performance is negatively affected because of these increased costs. Accordingly, when a firm cannot assess the quality of performance related to the processing of an accounting function accurately, adequate contracts with external accountant will be costly to draft (i.e., if contributions from an external accountant cannot be evaluated correctly) (Everaert *et al.*, 2010; Nicholson *et al.*, 2006).

Consequently, if it is difficult to appraise an professional accountant, then TCE premises that the accounting functions will not be provided by professional accountant, as the management of the SME chooses to monitor and control the performance of the in- house accountant directly (Everaert *et al.*, 2010). In this context, it is more economical to insource the accounting functions, which provides the firm a legal right to monitor and control the actions of its staff directly (Lamminmaki, 2009; Nicholson *et al.*, 2006). For example, the TCE prediction is that higher behavioural uncertainty in accounting functions increases the costs of transaction, and the accounting functions will be performed internally (Everaert *et al.*, 2010; Lamminmaki, 2007). Conversely, SMEs outsource more readily their accounting functions having low behavioural uncertainty (Nicholson *et al.*, 2006; Aubert *et al.*, 2004). In this case, if SMEs face problems in monitoring and controlling the quality of idiosyncratic accounting functions, they are even more likely to insource the accounting activities (Widener & Selto, 1999). From the

results, it is clear that behavioural uncertainty play a critical role in the accounting outsourcing intensity (Nicholson *et al.*, 2006).

Steven *et al.*,(2009) studied the effect of opportunistic behavior by 19th century railroad regulators in New Jersey. He found that railroads were willing to make large, specialized investments only when they were protected by special corporation charters that limited state actions against them. Levy *et al.*, (2001) international comparison of telecommunications regulation showed that private investment is forthcoming only when regulators can commit not to pursue arbitrary administrative actions that expropriate the value of assets. In either case, if regulators were not able to commit not to set arbitrarily low prices, regulated firms were unwilling to make infrastructure investments because they might not be able to recover the value of their investments.

Lastly, technological uncertainty refers to unanticipated changes in circumstances surrounding technology, i.e., new generations of technology that render existing technology obsolete (Folta, 1998). Broadly defined, technology represents theoretical and practical knowledge, skills, production and supply chain systems, and related artifacts that can be deployed along a firms value chain to develop goods and services (Aubert *et al.*, 2004). Changes in technology create new complexities for structuring value chain activities, especially when new knowledge is applied at a faster rate reducing the time between innovations (Levy & Spillers, 1994). In the presence of technological uncertainty, greater resource commitments produce more exposure to negative shocks. Thus, relative to arrangements that provide on-demand access to capabilities through intermediate markets, technological uncertainty may serve as a disincentive to internalize because it often requires greater resource commitments.

These conditions may prompt firms to pursue strategic outsourcing to reduce their exposure to unforeseen contingencies and to improve financial and operational stability and predictability. Schoonhoven and Romanelli (2001) found that

destandardization and decentralization of task execution had positive effects on firm performance under conditions of technological uncertainty. Harrigan (1985) argued that increases in technological uncertainty may lead firms to use less firm-specific resources. As a consequence, internalization is likely to decrease in the long-run, because strategic outsourcing allows firms to partly transfer the risk of task variability to the intermediate markets. Specialized firms in these markets may be better able to achieve cost efficiencies that are difficult for focal firms to achieve by balancing task requirements across multiple customers. As technological uncertainty increases, internal economies of specialization deteriorate in relation to the external economies of specialized firms (Teece, 1987). As such, strategic outsourcing not only can provide scale economies during periods of technological uncertainty, but may also act as a coping strategy helping to deal with risk. From this perspective, strategic outsourcing provides more predictable and orderly patterns of exchange within and between firms.

However, at higher levels of technological uncertainty, larger information deficits increase the likelihood for opportunism, making it costly to handle exchanges through intermediate markets. These asymmetries reduce the ability to foresee potential contingencies that may occur in the future making it costly to write, monitor, and enforce complete contracts (Grossman & Hart, 1986). As a result, parties to such exchanges are more likely to regularly renegotiate the terms of their relationship, which increases the likelihood of opportunism.

At increasingly higher levels of uncertainty, greater information deficits emerge, reducing cost economies and increasing the difficulty of interfirm collaboration. Reductions in cost economies lead to diminishing returns. At higher levels of technological uncertainty, firms find it difficult to accurately predict a priori the combination of possible events and outcomes that are likely to emerge from production (March & Simon, 1958). Thus, beyond a certain level of technological uncertainty, we expect this relationship to be negative.

2.3.3 Frequency of Accounting Functions

One of the important TCE factors is the frequency of the functions (Williamson, 1999). For instance, according to TCE, frequency is referred to —the repetitiveness and volume of similar transactions (Lamminmaki, 2007). Based on TCE, while the extent of a transaction increases, the transaction should be managed internally as a result of the production economies that can be achieved (Lamminmaki, 2009). In the context of accounting, Everaert *et al.*, (2010) present frequency as periodicity and size of the activity. It is stated that the periodicity and size of accounting functions have an effect on accounting function outsourcing intensity (Speklé *et al.*, 2007). Thus, it is indicated that the higher the frequency of transactions, the more likely insourcing will be adopted (Reeves *et al.*, 2010). In view of that, TCE argues that the frequency of the transaction affects the sourcing decision (governance choice) because frequency of transactions will affect exposure to opportunism (Nicholson *et al.*, 2006; Reeves *et al.*, 2010).

TCE perspective seeks to economize on both cost of the transaction and production costs (Reeves *et al.*, 2010). According to TCE, as the volume of accounting functions increases, differences in production costs between outsourced accounting practices and internally sourced accounting practices reduce, because larger firms are better equipped to take advantage of economies of scale than smaller firms (Speklé *et al.*, 2007; Everaert *et al.*, 2010). Thus, internalisation of transactions (insourcing of accounting activities) by the firm is only efficient for recurrent transactions (Aubert *et al.*, 1996). An implication of this argument is that as frequency of accounting functions increases, SMEs prefer to develop such functions internally in order to enhance the firms financial performance by enjoying economies of large scale production (Speklé *et al.*, 2007; Nicholson *et al.*, 2006).

2.3.4 Capability Complementarity received from the Exchange Partners

Capability Complementarity reflects a situation in which specialized capabilities sourced from outside enhance the value creation potential of a firm's own capability endowments. Complementary capabilities are different, yet mutually supportive (Luo, 2002a; Hitt *et al.*, 2007). Richardson (1972) suggests that capabilities are complementary when they represent different phases of production and require in some way or another to be coordinated in order to create maximum value. Therefore, the output from the accounting functions outsourced must be able to support the internal decision making process of the business managers. In other words the accounting output capability from the outsider must be able to compliment the decision making capability of the business managers. Where complementarities exist, the integration of internal and external capabilities enhances the potential performance gains the firm realizes (Mahoney & Pandian, 1992).

When complementary capabilities are idiosyncratic and indivisible, and thus not otherwise available in the factor markets (Barney, 1991), strategic outsourcing can provide access to them. Also, when complementary capabilities are linked together, they are especially difficult for competitors to duplicate because imitation not only requires obtaining the capabilities from intermediate markets, but also duplicating their deployment along a value chain (Holcomb *et al.*, 2006). Barney (1991) suggested that acquiring firms gain above normal returns from acquisitions only when private or uniquely valuable synergies can be realized. Private and uniquely valuable synergy is created when information about the combination is obscured from rivals and when no other combination of firms could produce the same value. Research suggests that firms participating in exchange relationships that involve complementary capabilities perform better than firms with relationships that are formed to achieve cost economies (Holcomb *et al.*, 2006).

Complementary resources can help a firm improve scale economies, enhance responsiveness and innovative potential, and increase quality. Furthermore, because complementary capabilities are generally relationship-specific (Dyer & Singh, 1998),

the value created may be unavailable to rivals through alternative sources (e.g. private; Barney, 1991), which may create a sustainable competitive advantage. Thus, outsourcing relationships are more important to value-creating activities when these relationships provide specialized capabilities that are complementary to those currently held by a firm, especially when the integration of those capabilities across a value chain create private and uniquely valuable synergy.

2.3.5 Strategic Relatedness with the Exchange Partners

Strategic relatedness characterizes the degree to which firms are strategically similar; it reflects the extent to which firms produce similar goods and services, serve similar markets, utilize similar production and supply chain systems, or rely on similar technologies. Relatedness provides a rationale for capability-sharing between firms (Prahalad & Bettis, 1986; Rumelt, 1984). This view of relatedness can be extended to include goal congruence and the commonality of knowledge-sharing routines. A high degree of relatedness between a firm and its exchange partners implies that they share common goals and are able to transfer knowledge between them more effectively (Holcomb & Hitt, 2006). Accordingly, strategic relatedness is an important factor in a firm's decision to pursue strategic outsourcing.

Goal congruence is the degree to which firms' operational, strategic, and performance objectives overlap and/or reinforce one another. When firms' goals are not congruent, performance considered satisfactory to a firm may not be satisfactory to exchange partners and vice versa. Likewise, behavior promoting the interests of a firm may not promote the interests of those exchange partners (Luo, 2002). The presence of congruent goals helps to resolve these potential concerns. Despite the importance of goal congruity for success in exchange relationships (Luo, 2002), evidence suggests a lack of goal congruity in many such relationships. As profit-maximizing goals are aligned, strategic outsourcing not only reduces monitoring and enforcement costs associated with the arrangement but also increases synergies as well. When goals are aligned, specialized firms are more likely to share common interests with a client's

and thus be more supportive of exploiting new opportunities, even if such opportunities require these firms make additional investments. These synergies enable firms with common goals to more quickly exploit competitive imperfections observed in the market (Mahoney & Pandian, 1992), and thus hold the potential to create value beyond cost savings alone.

Goal congruency also reduces conflict and encourages cooperative behavior (Parkhe, 1993). Thus, firms with exchange partners that share congruent goals find it easier to collaborate thereby enhancing the value of these relationships. Moreover, congruent goals improve the quality of relationships with exchange partners, which reduce the probability of opportunism (Uzzi, 1997). With the threat of opportunism reduced, exchange partners may be more willing to make additional resources available. Finally, congruent goals can reduce the need for formal contractual arrangements (Dyer & Singh, 1998). These informal agreements in turn promote adaptability and reduce the need for formal governance mechanisms (Uzzi, 1997). Thus, costs are reduced to the extent that less monitoring and enforcement is required.

By contrast, incongruent goals often lead to the development of sub-goals, which exchange partners may pursue at the expense of a focal firm (Williamson, 1975). Incongruent goals also impede cooperation, limit the exchange of resources between exchange partners (Luo, 2002), and can lead to early termination of these relationships. Furthermore, in the presence of incongruent goals, the time and energy spent resolving disputes detract from developing and implementing innovative strategies and can prevent valuable strategies from emerging. Incongruent goals therefore make it difficult to leverage specialized capabilities accessed by firms through strategic outsourcing.

A high degree of strategic relatedness also results when a firm and specialized exchange partners share common or similar knowledge-sharing routines (Dyer & Singh, 1998). We define knowledge-sharing routines as regular patterns of interactions that permit the transfer, assimilation, and integration of new knowledge

(Grant, 1996). The advantage of such routines lies in the ability to economize effort, which reduces coordination costs and affords greater capacity for knowledge-sharing between firms. So, is there any knowledge-sharing routine between the organization and the outside accounting specialists to whom the accounting functions are outsourced? This is very crucial in order to intimate the client of the development in the accounting profession and the introduction of the latest data processing equipment to facilitate mutual understanding.

Various scholars have argued that inter-organizational learning is also critical to competitive success, noting that firms partners are, in many cases, the most important sources of new knowledge (Powell *et al.*, 1996; Von Hippel, 1988). Common knowledge-sharing routines between a firm and its exchange partners enable more efficient absorption and use of acquired knowledge (Cohen & Levinthal, 1990). Absorptive capacity includes relationship-specific capabilities, such as knowledge-sharing routines, that arise when firms develop mutually specialized ways of exploiting each others capabilities. Dyer and Singh (1998) define partner-specific absorptive knowledge as a function of (1) the extent to which firms develop overlapping knowledge bases, and (2) the extent to which partners develop routines that maximize the benefit of their interactions. In sum, we conclude that effective knowledge-sharing routines are crucial to the exploitation of intermediate markets and thus affect the likelihood firms will pursue strategic outsourcing.

2.3.6 Size of the Firm as a Moderating Variable

Many authors focused on firms size and argued that large firms are more likely to outsource due to their larger bargaining power, which contributes to lower prices for services and products. This hypothesis is supported by the assumption that, in international outsourcing, large firms may have access to more suppliers that can contribute to their international development by working in several target markets.

Firm size was included as an explanatory factor because it affects the scale at which a firm can produce internally if it chooses not to outsource. Scale economies are widely held to influence firms outsourcing decisions, particularly for functions that have relatively high fixed costs. This suggests that smaller firms should outsource more to take advantage of the scale provided by specialized vendors (Calantone & Stanko, 2007). Small firms would be expected to be more likely to outsource because it may not be optimal for them to carry out all steps in the production process because of the costs of maintaining specialized equipment or skills in-house (Abraham & Taylor, 1996).

As Abraham & Taylor (1996) suggest, the cost savings derived from outsourcing can be obtained by two ways: first, exploiting the economies of scale in producing these specialized components or phases which are being contracted out (outsourcing for specialization) and, second, turning fixed costs in variable costs and gaining flexibility if there are frequent fluctuations in the product demand (outsourcing for capacity). The specialization motive for outsourcing introduces firm size as a determinant of this strategy. There may be economies of scale in the production of specific inputs and, in this sense, size variable has to be considered to control for this scale economies effect. Since small and medium enterprises will have more difficulty reaping the minimum efficient scale, they will opt more intensively for outsourcing. Large firms often take a different role in the supply chain, by primarily becoming an assembler and not a producer, and may therefore outsource more (Mol, 2007). Besides, large firms may have more bargaining power with suppliers, encouraging them to outsource. However, since we are going to analyze SME in this paper, this would not be the case since the largest firm is of a medium size.

The Firm size often ascertains the extent of its activities (Carey *et al.*, 2006). RBT suggests that smaller firms seek accounting services to enhance their competitiveness as the firm extends its market (Marriott *et al* 2008). One important characteristic of smaller firms is that they rarely have the resource to allow accounting functions to be carried out in house (Gooderham *et al.*, 2004). Therefore, RBT explained that the use

of external support and professional services interacts with the size and age of the firm (Bennett & Robson, 2003). For instance, smaller and younger businesses are likely to have more limited internal resources than larger companies (Johnson *et al.*, 2007). Consequently, small firms seek external assistance from accountants (Gooderham *et al.*, 2004). In addition, TCE theory influences firm size via economies of scale whereby smaller firms are shown to have lower frequency of activities than larger enterprises (Carey *et al.*, 2006). For example, smaller firms have greater difficulty to create economies of scale, and cannot have any justification for adopting in-house facilities and enhance outsourcing alternatives (Carey *et al.*, 2006). Johnson *et al.* (2007) and Dyer and Ross (2008) suggest that the use of professional and support services positively associated with size of the firm . Conversely, Mohan-Neill (1995) indicated that younger and smaller firms utilize less market information when they make decisions. That is why the new and smaller firms have a limited financial and human resource, which makes collecting information a difficult task (Mohan-Neill, 1995). Although large firms might also benefit from the intrinsic efficiencies of an external accountant, the comparative benefit of the external accountant is probable to lessen as the firm size enhances because larger companies have greater capacity to get cost efficiencies via economies of scale from an in-house facilities (Carey *et al.*, 2006).

2.3.7 Age of the Firm as a Moderating Variable

Firm age, or the number of years a firms foundation may affect the relationship between a firms outsourcing of accounting functions and her financial performance. In comparing older and younger firms, Glisson and Martin (1980) argued that younger firms tend to concentrate on product and market development when establishing their businesses, rather than accounting operation. Consequently, Glisson & Martin (1980) contend that younger firms accounting systems tend to be inadequate, resulting in lower quality accounting and disclosure. In contrast, older firms tend to have well-established accounting system and experienced managers and

staff or employment the services of the external experts (outsourcing), resulting in higher quality accounting and disclosure.

In general, the findings regarding the moderating effect of firms age on the relationship between outsourcing accounting functions and financial performance are mixed. Bryce & Useem (1998) finds that firm age has a positive effect on outsourcing accounting functions among SMEs in Zimbabwe. However, Glisson & Martin (1980) find no evidence of such a relationship among new Germanys new market firms. Bernard (1990) reveal that, although firm age does not significantly affect the level of outsourcing accounting among a full sample companies taken for the study, it does significantly affect the outsourcing level among a sub-sample of 50 Kwaitian Stock Exchange-listed firms. In conclusion, due to the large variation in the ages of 411 sampled SMEs, we expected that older SMEs in the study are more likely to outsource their accounting functions than younger firms.

2.4 Empirical Review

Kamyabi and Devi (2011), investigate the factors determining accounting functions outsourcing and their effects on firms performance among Iranian manufacturing. The explanatory variables used were: Owner/Manager knowledge, Technical competence and firm size. 658 questionnaires were used through postal mail survey and the data collected were analysed using Multiple linear regression analysis. It was found that Owner/Manager knowledge and technical competence is significantly is associated with accounting outsourcing while firm sizes are not significantly associated with accounting outsourcing. They revealed that outsourcing has significant positive effect on firm performance.

Everaert *et al.*, (2010), conducted a survey of 1200 Belgian SMEs on factors determining accounting functions outsourcing. The explanatory variables used were:

Asset specificity, Environmental uncertainty, Behavioral uncertainty and Frequency of transaction. It was found that Asset specificity is marginally associated with accounting outsourcing. Trust in Accountant is significantly positive associated with accounting outsourcing. While environmental uncertainty and behavioral uncertainty are not significantly and negative associated with intensity of accounting outsourcing. Finally, frequency of accounting transaction has significant negative correlation with accounting outsourcing.

Jayabalan *et al.*, (2009), conducted a study of 1500 Malaysian SMEs on factors determining accounting functions outsourcing. The explanatory variables used were: Type of business, Firm size, No of years in business, Number of employees in the firm. Descriptive statistics were performed on the data collected. It was found that out of 164 SMEs 119 (2/3) were currently or previously involved in accounting outsourcing practices.

Lamminmaki, (2008), investigates the determinants of degree of accounting department involvement in outsourcing and degree of accounting system sophistication in outsourcing among 356 Australian hotels. The explanatory variables used are: Competition, firm size, hotel quality, professional qualification and owner/operation structure. Data collected through phone interviews and surveys of the Hotel Financial Controllers are analysed using Regression analysis and descriptive statistics. His findings are: Hotel size, hotel quality and professional qualification are significantly and positively correlated with outsourcing intensity. However, competition has no significant correlation with degree of outsourcing.

Gooderham *et al.*, (2004), study the degree to which small firm uses its authorized accountant as a business advisor in Norway. The independent variable considered are: Long term relationship with accountant, perceived competence in statutory accountancy services, perceived competence in business advisory services and the firm size. Structured telephone interview of 320 SMEs were conducted by the researchers and the data collected were analyzed using Linear regression, Ordered

logit, and Binary logit. Their findings support perceived competence in statutory accountancy services and perceived competence in business advisory services.

Carey *et al.*, (2006) study the degree of outsourcing Internal Audit function among the listed companies on Australian Stock Exchange. The independent variables used are: Cost saving, Firm size, Technical competence and Corporate strategy. Data collected from a sample size of 99 companies drawn from the exchange are analysed using Logistic Regression. They find that: there is an association between internal audit outsourcing and cost saving in the short run but there is no association between internal audit outsourcing and firm size. Also, there is a positive association between technical competence of external service provider and outsourcing of internal audit. Finally, corporate strategy is not significantly associated with internal audit outsourcing.

Ellram *et al.*, (2008), investigate the determinants of off-shoring outsourcing of professional services among companies. Explanatory variables used are: Transaction frequency, level of assets specific investment, uncertainty in the external environment, uncertainty regarding performance of the contract itself. Data collected through interviews with 10 high-ranking supply management executives were analyzed using descriptive statistics. The analysis reveal that firms are likely to outsource larger volume professional categories and find small volume categories uneconomical. Also, the higher the level of asset-specific investment required, less likely the category to be outsourced is partially supported and uncertainty in the external environment reduces the likelihood of the companies to engage offshore professional service. Finally, uncertainty of firms about the offshore outsourcing requirements will make the transaction unattractive.

Kotabe and Mol (2009), conduct a study on the effect of strategic outsourcing of business process on the firms performance. Explanatory variables are: Peripheral outsourcing, Core outsourcing, Generic firm strategy and Environment dynamism. 558 manufacturing company top executives were contacted out of which 94

responded and the data collected were analyzed using descriptive statistics, linear regression and correlation. The result reveals that: peripheral outsourcing and core outsourcing do not support the firm performance. The firms strategy and environmental dynamism were proposed to be moderators in the scheme of the outsourcing intensity and firm performance relationship.

Wang (2002), studies success factors of outsourcing finance functions by using Asset specificity, uncertainty, reputation and post contractual opportunism and the explanatory variables. Postal questionnaire was used to obtain relevant data from randomly selected 1000 Manufacturing, 500 Service firms and 100 largest financial firms all located in Taiwan out of which 163 survey were used for the study. The data obtained were analyzed using Multiple regression analysis and the result shows that reputation and asset specificity are significantly and positively correlated with outsourcing success (supported) while uncertainty and opportunism are significantly and negatively correlated with the outsourcing success (supported).

Spencer (2005) focus on the international outsourcing to lower cost countries such as China and India, through the enrichment of trade models, industrial organization and contract theory to explain that related foreign direct investment, incomplete contract and search for the best partner contribute a lot to outsourcing decision (Spencer, 2005). Fei Chen (2005) sets Americas service outsourcing as an example to explain the motives of outsourcing from two aspects: external effects include technology, economics and market; internal motives include cost reduction and core competencies.

Lee *et al.*, (2008), examine the effects of the following variables on the Information Technology outsourcing arrangement among small companies: Mutual trust, Knowledge sharing and Mutual dependency. A field survey (163 respondents were used) method was adopted with a confirmatory analysis approach and the data so obtained is analyzed using Regression analysis and descriptive statistics. There result

shows that Mutual trust and knowledge sharing is positively correlated with outsourcing arrangement while the relationship between mutual trust and knowledge sharing will be moderated by the degree of mutual dependency is not supported.

Alvarez-Suescun, (2010), investigated the contributory factors to the outsourcing of Information Technology by organization, explanatory variable used are: Physical assets, Human assets, Capability, Behavioral uncertainty, Prior experience and Strategic contribution. Data were collected through an online questionnaire with final response rate was 45 useable questionnaires (40.54%). Data were analysed using Descriptive statistics and Binomial logit regressions and the result shows that physical specificity negatively influences the outsourcing while human specificity is not supported by the study. Furthermore, behavioral uncertainty is negatively associated with outsourcing. The strategic contribution and firm prior experience have significant influence on outsourcing decisions.

Verwaal *et al.*, (2008) studied outsourcing linkage to performance of the firm in accounting perspective and found significant positive linkage between them. They argued that outsourcing cannot only provide a benefit in short term, but it can be beneficial in long term also. These arguments were not just on theoretical basis, but they studied many years panel data and found that in long term it provides the more benefits than short term. If focused on the human-resource aspects, in long term it will help in reducing employees long term obligations such as pensions and employee rights. Moreover, it can help in reducing other long term expenditures such as capital investment in hardware, machinery and software.

Gilley *et al.* (2004) studied the human-resource aspect of outsourcing and found significant implication of HR activities such as payroll and training. Results of their studies indicated that HR outsourcing shows the positive impact of performance of firm and all HR outsourcing activities lead to organizational effectiveness in general. This concept is also supported by transaction cost theory (Williamson, 1975, 1991).

This theory suggests that corporations mostly outsource activities that are not organization specific, while activities not critical to core competencies should be outsourced keeping in view the resource-based perspective.

Gilley and Rasheed (2000) found that organizational performance in hotels increases for three reasons. First, due to increase of a firms core competencies, this is because of outsourcing. Secondly outsourcing caused increased service quality, and lastly, it caused cost reduction. So it can be concluded that outsourcing caused improvement in organizational performance.

Cho *et al.* (2008) studied logistical outsourcing and found this capability to be positively related to the performance of the firm in the e-commerce market. This was because of logistic outsourcing may not be of such importance in e-commerce market, but it might be significant in other markets and firms. They supported their results by argument that firms in e-commerce industry spread wide amount of resources on their websites, but they are unable to reach their customers in time, so as a result of this study it was suggested that they could increase their logistic capabilities in spite of outsourcing them.

2.5 Critique of the literature

The existing literature provides some separated insightful hints about entrepreneurial outsourcing decisions and processes, but it does not offer a complete framework to study the relationship between growth and outsourcing decisions. Thus, understanding of entrepreneurial outsourcing is low and studies are often contradictory. For example, Sen and Haq (2011) find that small firms tend to outsource core organizational competencies, whereas Yu and Lindsay (2011) find outsourcing to have negative effects on core competencies. Moreover, Solakivi *et al.* (2011) observe no change in logistics performance due when small firms outsource. Nadkarni and Herrmann (2010) identify that entrepreneurial firm outsourcing

decision-making relates to founder personality, but Memili *et al.* (2011) and Kamyabi and Sevi (2011) show that entrepreneurial complexity is the critical force behind outsourcing decisions. Whereas Gilley *et al.* (2004) find perceived environmental dynamism and managerial risk aversion to influence a small firms outsourcing decision, Jiang *et al.* (2008) show that power differences between outsourcing suppliers and potential buyers play an important role.

Transaction Cost Economies Theory assesses the choices between self-producing (internal transactions) and outsourcing activities (market transactions) by comparing the internal costs (hierarchy) and the costs of using the market (Jones & Hill, 1988). Subsequent research has shown that TCE may overrate rationality in firms behaviors due to a lack of cognitive capacity to assess appropriability (Pisano, 1990) or observability (Holmstrom & Roberts, 1998). Additionally, outsourcing literature shed little light on the possible ambiguities related to the assessment of the actual dynamics of transaction costs (Chen, 2009). For instance, differences in culture, language, and business laws may have a great impact on transaction costs and thus limit the generalizability of prior studies across national governance systems.

From the previous studies obtained as per the literature reviewed on accounting functions outsourcing with reference to SMEs. It was observed that the majority of these studies were done in the developed countries such as Australia, Belgium, Netherland, Norway, USA, Taiwan, Malaysia, Bulgaria and Thailand, out of all these studies there is no study done on Nigeria regarding the outsourcing of accounting activities by Nigerian SMEs. Furthermore, substantial number of previous studies is on big companies and multi-national firms. As an off-shoot of this, many SMEs are not considered by the previous studies on how to key-in to Offshore Outsourcing in order to benefit from it .

2.6 Research Gaps

Whenever companies are considering outsourcing a first issue of interest is presumably the possible benefits that can be gained. Despite the fact that many benefits may be expected, one practice of outsourcing will not likely provide all the possible benefits. A great amount of arguments can be found from literature that supports the fact that outsourcing rarely fulfills all expectations. According to PA Consulting Group's survey only 5 % of the respondents said they had high level of benefits from outsourcing while suffering only minor drawbacks (Lonsdale & Cox, 1997). Thus, it should be realized that there is often a major gap between expected benefits and materialized outcomes.

Moreover, it should be carefully assessed whether the benefits will really materialize as anticipated. Management literature widely supports the argument that many problems arise when wrong objectives are sought (Lonsdale & Cox, 1998; Quelin & Duhamel, 2003). Wrong objective is not something that should never be sought. Rather, it is an objective that is inappropriate under particular circumstances. Perhaps the most common inappropriate objective is a short term cost-cutting. Under certain circumstances it may be appropriate objective, but often it is just short-sighted decision. If the short term cost-cutting is a motive for outsourcing, the long term effects should be kept in mind too (Quelin & Duhamel, 2003). Regardless of the outsourcing motives, it should be clear whether the outsourcing is a short-term or a long-term decision and whether it is a strategic or an operative decision. Outsourcing decisions that contribute value in the long-term make more sense in most cases (McIvor *et al.*, 1997). According to Zhu *et al* (2001) successful outsourcing contracts happen when the company knows exactly what it is trying to accomplish. Most previous studies fail to look at the determinants of the right choice of objectives for different developmental phases of firms. Thus companies should be aware of outsourcing at the wrong development phase could spell doom accordingly. Consequently, future studies could be carried out on the determination of right choice of outsourcing objectives for different developmental phases of firms.

Furthermore, when assessing cost savings expected from outsourcing, there is one trap to fall into and that is all direct and indirect costs that carrying out the activity currently in-house entails, are well known and this is most times not known (McIvor *et al.*, 1997). If the in-house costs are not properly assessed, there is no way of correctly comparing internal costs to prices that the forthcoming supplier is offering. Adequate costing system is needed for outsourcing decision, especially if outsourcing is cost driven (McIvor *et al.*, 1997). In the worst case, if costs are assessed too optimistically, outsourcing may even increase total costs. (Lacity & Hirschheim, 1993; Zhu *et al.*, 2001). Here, there is a research gap which had not been covered by previous studies. Little or no previous studies have been carried out sensitivity of the inappropriate determination of in-house cost on the outsource decision making especially when the motive is cost-cutting.

Criticality of activity refers to how much the activity is responsible for competitive advantage, in other words, is it core activity. One key motive for outsourcing is concentration on core competencies. However, the question remains, what are core activities (Heikkilä & Cordon, 2002). What exactly is a core is a debatable question. One feature of core activity is that it provides competitive advantage (Lonsdale & Cox, 1998). Core activity is essential for the business. Losing core activities is considered one of the most important risks of outsourcing. This is why, this issue need a serious concern. Risks of outsourcing critical activity are different than they are if the activity is a purely peripheral. If outsourcing a support activity fails, the worst case scenario is additional costs. The core business hardly will be endangered. However, if the outsourced activity is critical, in the worst case scenario, the whole business is on the line.

A key to successful outsourcing is to identify how critical the activity is. There are two important questions. First, is the activity responsible for competitive advantage at the moment? Second, will the activity provide competitive advantage in the future? When outsourcing, it is critical to ensure that competitive position is secured

in the short run as well as in the long run (Lonsdale, 1997). Business processes are complex and just dividing activities into core and non-core may lead to dangerous oversimplification (Heikkilä & Cordon, 2002). The fact is that the activity that is not a core for some companies may be a core for another (Heikkilä & Cordon, 2002; Mol, 2007). Moreover, inside a company each business unit may have their own set of core activities (Heikkilä & Cordon, 2002). If this matter of fact is ignored when defining outsourcing policy concerning the whole company, confusion may occur (Heikkilä & Cordon, 2002). Most previous studies are found to be generalizing these concepts of core and non-core activities for companies in outsourcing decision function for convenience. Thus, a gap in research exist for future exploitation.

Vast majority of literature focuses on internal factors of affecting outsourcing decision with less attention to customers perceptions or views on the organizations from where the outsourcing is made. Hence only few researches recommend putting a question how customers will take the outsourcing and what happens to customer perceived value. For instance, it makes a lot of difference to some customers whether the product is made in Western or Asian countries. Despite the fact that Chinese suppliers from Asia may well be able to meet high quality standards, some customers still believe that the products from that source is of less quality. Therefore, previous studies have not done justice to this area of considering the customers taste and the perceived quality of outputs of the external party from where the outsourced activities are made.

2.7 Summary

More and more small business are recognizing the need to stay focused on what they do best – their core competency or process while embarking on strategic measures to minimize their cost of doing business. In an age where focus on core competency is the mantra (Prahalad & Hamel, 1990), small businesses are increasingly outsourcing critical financial functions to experts.

Hosking (2004) identifies four key benefits of accounting functions outsourcing as: genuine focus on core competence, increased flexibility and responsiveness for the business, lower cost of accessing new business technology and reduced operating costs. Data processing tasks have long been a target for outsourcing (Bagranoff, Simkin & Strand 2005), with outsourcing of accounting function the system enjoys better financial reporting, decision-making and professionalism.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter discusses the research methodology adopted in this study. The research objectives and conceptual framework provided the basis for the methodological direction implemented and analytical path adopted in this research. This chapter provides a brief explanation of the research philosophy, research design applied in the study, and provides details on the research setting, population, data collection methods and instruments and data analysis techniques adopted in the research study.

Research Philosophy

Literature highlights two major research philosophies, namely positivist also known as scientific and interpretivist or subjectivism. Positivists believe that reality is stable and can be observed and described from an objective viewpoint (Levin, 1988), without interfering with the phenomena being studied. This often involves manipulation of reality with variations in only a single independent variable so as to identify regularities in, and to form relationships between some of the constituent elements of the social world. Positivism is said to be in the realm of theory, where the data is theory driven and design to test the accuracy of the theory (May 2002). Predictions can be made on the basis of the previously observed and explained realities and their inter-relationships.

Subjectivism or interpretivists contend that only through the subjective interpretation of and intervention in reality can that reality be fully understood. The study of phenomena in their natural environment is crucial to the interpretivist philosophy, coupled with the acknowledgement that scientists cannot avoid affecting the phenomena they study (Kothari, 2004). Subjectivism focuses on the meaning the individuals give to their environment and not the environment itself (May, 2002)

The current research adopted a positivistic philosophical perspective. It utilised an empirical setting to investigate the theoretical relational paths drawn from literature and test them through hypotheses. The conceptual framework sought to quantify the data for the purposes of explaining the causal relationships. This study was based on the premise that knowledge is founded on facts and that no abstractions or subjective status of individuals is considered. This study therefore, sought to derive a quantitative perspective, which holds that there is an objective reality that can be expressed numerically, with explanatory and predictive power (Neuman, 2006).

Positivism argues for continued use of the most logical, dominant, or relevant framework and that the objective reality exists beyond the human mind (Hjorland, 2004). This study adopted a positivistic philosophy as it aimed to offer explanations and it also started from hypotheses statements backed by facts contained in data sourced from respondents self-reporting, and secondary data of financial Statements of SMEs in Nigeria. The data was then analyzed to test the accuracy of the theory. The approach also comprised of quantitative research tools and techniques.

3.1 Research Design

The study was a longitudinal study which is deemed appropriate as it has been found to be robust for effects of relationship studies and has been adopted in previous outsourcing of business functions research (Lu *et al.*, 2010; Tseng *et al.*, 2007). The research study was analytical in nature and involved testing of hypotheses quantitatively. The main strength of this research approach was that it provided a concise answer to the research questions through the collection and analysis of information that could be aggregated from survey data. This offered an enhanced understanding of the relationships that existed among the variables.

The study constructs and phenomena that were being investigated were known and the aim was to describe them and explain them better through empirical investigation. The study used analytical and predictive models in order to establish the relationship between the variables under study. The research methodology employed was designed mainly to be confirmatory in nature.

A survey instrument was developed to collect data to empirically test the relationship between outsourcing accounting functions based on some identified key factors and the financial performance of SMEs in Nigeria as proposed by the study's conceptual model. The hypothesized relationships were tested based on partial testing of existing theory. The research, using theoretical knowledge and empirical research, postulated the relationship pattern a priori and tested the hypotheses statistically (Schreiber *et al.*, 2006).

3.2 Population

According to Ghauri and Gronhaug, (2010) when the research problem is specified and an appropriate research approach and data source is developed, the next step of research is to choose the elements that produce the information needed. For that purpose initially a population and consequently a sample must be identified. Hence, population refers to a larger group of study units that are targeted for a specific study. Therefore, for this research the identified population is 22,917 Nigerian SMEs duly registered and on which comprehensive survey research was conducted by a collaborative efforts of National Bureau of Statistics (NBS) and Small and Medium Enterprises Development Authority Nigeria (SMEDAN) in the year 2010. These bodies are official routes to authentic statistical data about Nigeria and SMEs group respectively. Also, limiting the investigation to a single nation helped to control for extraneous potentially confounding variables (Lynch, 1998) such as cognitive cultural and legal institutions that may have resulted in differences in the institutional environment within the firm (Lu *et al.*, 2010).

3.2.1 Target Population

The target population is an entire group of specific population elements that are relevant to this research. In this research, the target population is SMEs operating in Southern Region of Nigeria. This region consists of three out of six Geo-political Zones in Nigeria which include: South-East (SE), South-West (SW) and South-South (SS). The major reason for the selection of this region was because it houses almost the first three most populated states for all the identified SME-sectors surveyed, see Table 1b in Appendix (SMEDAN-NBS, 2010). The region is clearly favored by the presence of Atlantic Ocean which facilitates import-export businesses. Hence, the region is the commercial zone of the country. In the light of this, the target population was 5,907 SMEs domiciled in the Southern Nigeria that fall into first-three most SMEs populated states for each of the 12 sectors officially recognised as per the SMEDAN-NBS, 2010 (Table 1c in Appendix).

3.3 Sampling frame

Sampling refers to the procedure of selecting a list of elements which may be drawn from the target population in order to make a conclusion regarding the whole population. The sampling design process consists of a series of stages which are highly interrelated and relevant to the research project. For this study, elements were drawn from the industries targeted for the population of the study. SMEs from the following official sectors were selected: Agriculture, Forestry and Fishing; Mining and Quarrying; Manufacturing; Building and Construction; Wholesale and Retail Trade; Hotels and Restaurants; Transport and Communication; Financial Intermediation; Real Estate and Renting Businesses; Education; Health and Social Work; Other Community, Social and Personal Services. The State-Sectorial Ranking as shown in Table 1b was employed to establish how concentrated these sectors are in different states of the Southern Nigeria and this formed the basis of the sector to focus on in each state of study.

3.4 Sample and sampling technique

Israel (1992) suggests the uses of entire population for sample size if the population is small that is, using census for small population. For populations that are large, there are three (3) identified criteria that need to be specified to determine an appropriate sample size; they are level of precision, the level of confidence or risk and the degree of variability in the attributes being measured. Since the population of the sampling frame was large due to the involvement of numerous SMEs in this region, the sample size was arrived at bearing in mind the assertion of Cochran (1967) model.

$$n_0 = \frac{Z^2 * p * (1 - p)}{e^2}$$

Where n_0 = is the desired sample size when the population is $> 10,000$

Z^2 = standardized normal deviations at a chosen confidence level, for instance if the confidence level is 95%, then $Z = 1.96$

e = appropriate significance level, for instance at 95%, the significance level is 0.5

p = the proportion in the target population that assumes the characteristics being sought. In this study, the optimal 50:50 basis was assumed.

q = That is $1-p$, which in our case yielded $100\% - 50\%$ or $1-0.5$

The Z-values for confidence levels are:

1.645 = 90 percent confidence level

1.96 = 95 percent confidence level

2.576 = 99 percent confidence level

* 95% confidence level and $p = 0.5$ are assumed

Using this procedure, the sample size

$$n = (1.96^2 \times 0.5 \times 0.5) / 0.05^2 = 384.$$

The 384 sampling units which was taken as minimum sample size will be apportioned among the SMEs in the State-Sectorial identified. The target population of the study are the SMEs in three Geo-political zones of Southern part of Nigeria consisting of 22,917 SMEs as contained in the report of collaborative study of National Bureau of Statistics and SMEDAN in the year 2010 (Appendix VI). The sampling technique adopted was a two-stage sampling technique applied chronologically as follows: stratified and simple random sampling techniques. The SMEs were first stratified into industry using official industries as recognized by the NBS-SMEDAN study. Thereafter a simple random approach was employed in selecting respondent SME organizations from the first three states that recorded the highest number of SMEs for each industries so identified (Appendix VI). This exercise produced an observation of 411 which was used for this study. The position is presented in the table below:

Table 3.1 Sample Selection procedure

S/N	SECTOR	STATES	GEO-ZONE	NO. OF SMEs	MIN. SAMPLE SIZE
1	Agric, Forestry & Fishing	Lagos	SW	72	5
		Enugu	SE	50	3
2	Mining & Quarrying	Edo	SS	56	4
		Ebonyi	SE	13	1
3	Manufacturing	Lagos	SW	1,195	78
		Oyo	SW	272	18
4	Building & Construction	Lagos	SW	36	2
		River	SS	18	1
5	Wholesales & Retail	Lagos	SW	545	35
		Oyo	SW	294	19
6	Hotels & Restaurants	Lagos	SW	293	19
		Edo	SS	126	8
7	Transport & Communication	Lagos	SW	71	5
		Oyo	SS	54	4
8	Financial Intermediation	Lagos	SW	335	22
		Oyo	SW	177	12
		Edo	SS	158	10
		Delta	SS	158	10
9	Real Estate	Lagos	SW	200	13
		Oyo	SW	110	7
10	Education	Lagos	SW	452	29
		Oyo	SW	117	8
11	Health & Social Work	Lagos	SW	526	34
		Oyo	SW	200	13
		Anambra	SE	188	12
12	Social & Personal Services	Lagos	SW	128	8
		Oyo	SW	63	4
TOTAL				5,907	384

3.5 Instruments.

The main sources of data collection in this study were primary data and secondary data. For the primary data, research questionnaires were self-administered on the

respondents in Nigeria. Supporting the collection of data by this method, according to Veal, is that: Questionnaire surveys are an ideal means of providing quantified information for organizations that rely on quantified information for aspects of their decision making (Veal, 2005). While the secondary data were obtained vide the collection of companies financial statements and annual reports for the years 2008, 2009, 2010, 2011 and 2012.

3.6 Data Collection Methods

An outsourcing questionnaire survey were administered in Southern part of Nigeria. The responses were collected on the basis of face to face interaction and interviews with SMEs owners/managers. Throughout the research period 520 SMEs owners/managers were contacted by personal visit to each official office of the respondents as well as approach SMEs owners/managers during the monthly Chamber of Commerce in different states.

A structured questionnaire with close and open ended question format was used (see Appendix II). Some respondents were approached during the weekly or monthly members meeting in different Chamber of Commerce. It was quite convenient for us to get maximum respondents at such locations. Researcher encouraged questionnaires to be filled face to face because that personal contact motivated the SMEs owners/managers to give prompt response within few minutes and also verbal communication in native language took less time to get the questionnaire completed. Respondents were clearly informed that they were participating in a study for a Doctoral Thesis research. Finally, we had only 411 usable responses, representing a very effective response rate of 82 percent.

Obtaining the companies financial statements and annual reports for the period of 5years (2008-2012), the researcher was able to obtain figures on Return on Capital Employed (ROCE) which were used to assess the effect of outsourcing accounting functions on the firms financial performance. These documents were collect by series

of visits to the office premises of the respondent companies, offices of state tax authorities, offices of the Corporate Affairs Commission both in Abuja and some state capitals and Headquarter of Small and Medium Enterprises Development Authority of Nigeria (SMEADAN). The data collected via this medium were spread in Appendix VI. Confirmatory Factor Analysis (CFA) was conducted to assess the convergent validity of the organisations financial indicator (Return on Capital Employed) obtained for the five-year period. This Convergent validity was assessed using the value of standard loadings of the indicators which must be statistically significant and above 0.5 (Nunnally, 1978). The CFA results of item loadings and their respective t-values are reported in Table 3.2. The items were significantly loaded on the proposed factors with loading higher than 0.5. Furthermore, Convergent validity was also assessed using Average Variance Extracted (AVE) of 0.971 which was above the 0.5 threshold indicating that the measurement scales exhibited adequate measurement validity (Hair *et al.*, 2006).

Table 3.2 Convergent Validity of Financial Indicators for five years

Outer Model	Sample Estimate	Sample Mean (M)	Std Error (Se)	t- Statistics	p-values	Average Variance Extracted (AVE)
Financial Performance						0.971
ROCE_2008	0.99	0.99	0.001	1,085.78	0.000	
ROCE_2009	0.992	0.992	0.001	1,026.37	0.000	
ROCE_2010	0.98	0.98	0.003	341.133	0.000	
ROCE_2011	0.991	0.991	0.001	694.362	0.000	
ROCE_2012	0.974	0.974	0.003	379.991	0.000	

3.6.1 Pilot Testing of Instruments

According to Babbie (2008), a pilot study is conducted when a questionnaire is given to just a few people with an intention of pre-testing the questions. Pilot test is conducted to detect weaknesses in design and instrumentation and to provide proxy data for selection of a probability sample (Cooper & Schindler, 2011). It assists the

research in determining if there are flaws, limitations, or other weaknesses within the interview design and allows him or her to make necessary revisions to the questionnaire prior to the implementation of the study (Kvale, 2003).

A pilot study was conducted in the month of June 2014 among 20 SMEs (10 small firms and 10 medium firms) in Lagos State of Nigeria. This number constituted approximately 5% of the sample of 411 SMEs. The aim was to test the reliability and validity of the questionnaire. It also assisted in determining if there are flaws, limitations, or other weaknesses within the interview design and allowed for revisions to be made to the questionnaire prior to the implementation of the study. As indicated in Table 3.2 a total of 20 firms returned the questionnaires giving a response rate of 100%.

Table 3.3 Pilot Test

Type of Business	Study Sample	Pilot Test Sample	Number of Pilot Respondents
Small Businesses	210	10	10
Medium Businesses	201	10	10
Total	411	20	20

3.6.2 Operationalization of Variables

Table 3.4 Variables Operationalized

Constructs	Indicators	Measurement Scales	Informing Literature	Relevant Questions
Asset Specificity	Physical Assets	Interval Scale	Speklé, 2004; Williamson, 1985;	6-14
	Human Assets	5-point Likert Scale	Chang et al., (2009); Everaert et al., (2010);	
	Sub-units Inter-dependency	5-point Likert Scale	Watjatrakul, 2005; Espino-Rodríguez, et al., 2008	
Uncertainties	Environmental	3-point Likert Scale	Chang et al., (2009); Reeves et al., 2010;	15-24
	Behavioural	Interval Scale	Everaert et al., 2010; Nicholson et al., 2006;	
	Technological	Interval Scale	Lamminmaki, 2009; Kotabe and Mol, 2009	
Frequency of Accounting Functions	Periodicity of functions	5-point Likert Scale	Nicholson et al., 2006; Lamminmaki, 2009;	25-26
	Size of functions	5-point Likert Scale	Speklé et al., 2007; Everaert et al., 2010	
Capability Complimentarity	Amount of Synergy created	Interval Scale	Quinnn,2009; Duan et al., 2002	27-31
	Imitability of Complimentary Capability	Interval Scale	Holcomb et al., 2006; Burt, 1992; Luo, 2002	
Strategic Relatedness	Goal Congruency of the parties	Interval Scale	Prahalad and Bettis, 1986; Uzzi, 1997	32-39
	Knowledge Sharing Routine	Interval Scale	Mahoney and Pandian, 1992; Dyer and Singh, 1998	
Firm Size as a Moderator	Number of Employees	5-point Likert Scale	Calantone & Stanko, 2007; Marriott et al 2008	5
Firm Age as a Moderator	Years in Existence	5-point Likert Scale	Glisson & Martin 1980; Bernard 1990	4

3.7 Data Processing and Analysis

Data processing entailed coding data of completed questionnaires. First, data processing was undertaken through coding of the completed questionnaires, entry into SPSS Version 22 and checking for accuracy of data input. It was then necessary to run frequency distributions on all items and assumptions verified. In addition, reliability check on the consistency of all measures was performed. Cronbach alpha was 0.987 indicating higher reliability among the indicators.

Secondly, to achieve the objectives set for this research, several analytical tools were used. To determine the extent to which the independent variables (Asset specificity, uncertainties, frequency, capability complementarity and strategic relatedness) influence the dependent variable (financial performance) Correlation Analysis was used. A correlation analysis was performed to determine if any variable were correlated. The Pearson correlation coefficient (r) was used to identify the magnitude and the direction of the relationships between variables. For example, the value can range from -1 to +1, with +1 indicating a perfect positive relationship, 0 indicating no relationship, and -1 indicating a perfect negative or reverse relationship. Disregarding the direction of values either positive or negative, the correlation results were interpreted as follows. For $0 < r < 0.3$ was considered weak relationship, $0.3 < r < 0.5$ was considered as moderate relationship, and $0.5 < r < 1$ was considered as strong relationships. However, adjectives such as slightly, moderately and highly were used with these terms to further differentiate the relative degree of correlations. The Analysis Of Variance (ANOVA) tested for the goodness of fit of the models and significance of the relationship between the dependent and independent variable based on a 5 % level of significance.

Multiple linear regression analysis was used to predict the value or influence of the independent variables on the dependent variable when the moderating variables are applied. Notwithstanding the results of the partial multiple regressions of the model,

a test of the overall model was considered important in justifying the proposed study models. Thus, the research hypotheses adopted two primary approaches, one testing the significant of the relationship and the goodness of fit of the relationship. The hypotheses were tested within 95 per cent level of confidence interval or 5 per cent level of significance. This study used Structural Equation Modeling (SEM) Partial Least Squares (PLS) approach. SEM-PLS is an approach for testing multivariate models with empirical data. SEM-PLS regression uses a two stage procedure to test predictive models. The initial step is the evaluation of the outer or measurement model to determine the validity and reliability of the construct used to measure the variables in the study. The next step is the assessment of the inner or structural model. The measurement models address the reliability and validity of the indicators in measuring latent variables or hypothetical constructs, while the inner or structural model specifies the direct and indirect relations among the latent variables (LV) and describes the extent of explained and unexplained variances in the model.

Component based SEM technique was utilized in the research because PLS has a number of functionalities which were deemed appropriate in this research. PLS can analyze complex models with large sets of relationships among constructs and sub-constructs. It provides more flexibility in modeling second order constructs and formative constructs (Chin, 1998) and supports hierarchical component approach in second order construct modeling by assigning all indicators of first order factors (Wold, 1982). Additionally, PLS can account for measurement errors of latent constructs and assess significance of structural models simultaneously (Sambamurthy & Chin, 1994). SEM analysis was relevant for this research as it can handle multiple independent and dependent variable simultaneously (Byrne, 2001). SEM also allows relationships among constructs to be automatically corrected by measurement errors as the estimation of measurement and structural models are being performed simultaneously (Byrne, 2001).

The SEM was developed and analyzed in two stages. Initially the measurement model was developed and measurement properties of multi-item constructs were analyzed for reliability and validity: convergence and discriminant by conducting confirmatory factor analysis (CFA). The second stage involved the development and analysis of the proposed structural model for hypotheses testing.

3.7.1 Reliability and Validity Checks

Once initial descriptive analysis was completed, data purification with Exploratory Factor Analysis (EFA) was performed. The research constructs were purified using Exploratory Factor Analysis and reliability analysis with the assistance of SPSS 23. The aim of EFA was to refine the variables into the most effective number of factors (factor loading) by selecting the variable with high correlations among themselves but low correlations with all other variables (Babin & Svensson, 2012).

Structural Equation Modelling was used to re-validate the measurement model by executing Confirmatory Factor Analysis (CFA) to obtaining: Unidimensionality, Construct Reliability, Convergent Validity and Discriminant Validity of the variables (Hair *et al.*, 2011).

Construct unidimensionality verifies that that items used to measure a particular construct only measure that single construct. Exploratory factor analysis and/or confirmatory factor analysis can be used to measure this criterion (Hair *et al.*, 2010; Hensler *et al.*, 2009; Hulland, 1999). Construct reliability measures whether the scales used to measure a particular construct provide consistent measurement results. Reliability analysis is conducted on each scale (Hensler *et al.*, 2009; Cronbach and Lee, 1975). Convergent validity is used to ensure that measurement items for relevant constructs actually measure that particular construct. Convergent validity is assessed using confirmatory factor analysis and PLS regression and the specific

measures applicable in PLS are composite reliability (CR) and average variance extracted (AVE) (Hair *et al.*, 2010). Discriminant validity measures the specific uniqueness of the constructs to each other in the model. In PLS, blindfold analysis was used to calculate the Stone-Geisser Test Criterion (Hensler *et al.*, 2009). The Coefficient of Determination (R^2) and comparing the Average variance extracted (AVE) to the variance among the constructs are also used to confirm discriminant validity (Hair *et al.*, 2010).

The criterion used to assess the model are summarily presented in Table 3.5

Table 3.5 Measures to Fit PLS Model

Measures	Procedure	Statistical Criterion	References
1 Construct Unidimensionality	Test of Univariate Normality	Excess of Kurtosis over Skewness must fall between -2 and +2 for each variable	
2 Construct Reliability	Reliability Analysis Composite Reliability	Cronbach Alpha >0.6 Composite Reliability > .70	Cronbach (1979); Fornell & Larcker (1981); Sekran (2006)
3 Convergent Validity	Factor Analysis AVE Fornell-Larker Measure	Factor Loadings > .50 Item to Total Correlation > .30 Average Variance Extracted > .50 AVE> (Highest correlation for factor) ²	Hair et al. (2006); Nunnally (1978) Fornell & Bookstein (1982)
4 Discriminant Validity	Coefficient of Determination Stone Geisser Test Criterion Variance Inflation Factor (VIF)	$R^2 > 0.19$ (weak); $R^2 > .33$ (moderate) $R^2 > .57$ (substantial) $Q^2 > 0$ VIF < 10 or VIF < 3.30 for formative factors	Fornell & Bookstein (1982)
5 Autocorrelation Test	Durbin-Watson Statistics	Statistics to lie between 1.5 and 2.5 to show no autocorrelation and p-value >0.05	Chatfeild (2004); Garson(2012); Cameron(2005)
6 Multicollinearity Test	Tolerance and Variance Inflation Factor (VIF)	VIF < 10	Simon (2004); Porter and Gujarat (2010); Hamilton(2006)

Sources: Hair *et al.*, 2010; Hensler *et al.*, 2009; Bryne, 2001; Chin, 1998

3.7.2 Structural Model Specification and Estimation for the Study

Once the measurement model had been evaluated and the study measures had been validated, the structural model (or structural regression model) was examined to test the plausibility of hypothetical relationships among latent variables (Byrne, 2001). The overall evaluation of the interaction among these variables was looked at from two major perspectives in order to test and extract useful information from the various Hypotheses of this study. The first perspective was to ascertain joint interactions of individual construct with the dependent variable thus the following function and the operational equation:

$$FP = f(AS, U, FAF, CC \text{ and } SR)$$

$$FP = \beta_0 + \beta_1(AS) + \beta_2(U) + \beta_3(FAF) + \beta_4(CC) + \beta_5(SR) + \mu \text{ -----Equation 3.1}$$

Where:

FP = Financial Performance (Dependent Variable)

β_0 β_5 = Slope for each variable

AS = Outsourced Accounting Functions based on Asset Specificity

U = Outsourced Accounting Functions based Uncertainties

FAF = Outsourced Accounting Functions based Frequency of Transactions

CC = Outsourced Accounting Functions based Capability Complementarity

SR = Outsourced Accounting Functions based Strategic Relatedness

μ = Error term

Structural Equation Modelling involves a two-step approach, the measurement model and the structural model have been preferred by many researchers because they believe that accurate representation of the reliability of the indicators is best accomplished in two steps to avoid the interaction of measurement and structural models (Hair *et al.*, 1998; Lu *et al.*, 2009; Hensler *et al.*, 2009).

Path coefficient estimates, T-values, overall model fit and significance levels for the structural paths were evaluated to investigate the causal relationships among the research constructs as proposed in the integrative model. Hair *et al.* (2010) have indicated that a challenge in PLS is how to determine model fit. PLS does not use a specific test statistic. PLS tests the relationships by resampling the data through a bootstrapping procedure. The resultant T-tests statistics from the procedure provide the basis for determining which relationships are statistically significant (Hensler *et al.*, 2009). In addition to using the bootstrapping procedure, a blindfold procedure was used to ascertain predictive relevance of the model by calculating the Stone-Geisser Test Criterion (Hensler *et al.*, 2009).

3.7.3 Testing for moderation

Moderation occurs when the variable, say M, alters the relationship between the variables, say X and Y, by either enhancing, strengthening or weakening the relationship (Sauer & Dick, 1993). In order to determine the function of the moderator, two recommended tests are used: SmartPLS Moderating effect tool, which uses the product indicator approach recommended by Chin, Marcolin and Newsted (1996), and difference in R² as recommended by Carte and Russell (2003). For this study, the second perspective was to assess the moderating effect of firm size and firm age on the relationship between independent and the dependent variables hence, the following equations:

Equation 2

$$FP = \beta_0 + \beta_1(AS) \beta_6(FZ) + \beta_2(U) \beta_6(FZ) + \beta_3(FAF) \beta_6(FZ) + \beta_4(CC) \beta_6(FZ) + \beta_5(SR) \beta_6(FZ) + \mu$$

Equation 3.2

Where:

FP = Financial Performance (Dependent Variable)

β_0 β_5 = Slope for each variable

- AS = Outsourced Accounting Functions based on Asset Specificity moderated by firm size
- U = Outsourced Accounting Functions based Uncertainties moderated by firm size
- FAF = Outsourced Accounting Functions based Frequency of Transactions moderated by firm size
- CC = Outsourced Accounting Functions based Capability Complementarity moderated by firm size
- SR = Outsourced Accounting Functions based Strategic Relatedness moderated by firm size
- μ = Error term

Equation 3

$$FP = \beta_0 + \beta_1(AS) \beta_6(FG) + \beta_2(U) \beta_6(FG) + \beta_3(FAF) \beta_6(FG) + \beta_4(CC) \beta_6(FG) + \beta_5(SR) \beta_6(FG) + \mu-----$$

-Equation 3.3

Where:

FP = Financial Performance (Dependent Variable)

β_0 β_5 = Slope for each variable

- AS = Outsourced Accounting Functions based on Asset Specificity moderated by firm age
- U = Outsourced Accounting Functions based Uncertainties moderated by firm age
- FAF = Outsourced Accounting Functions based Frequency of Transactions moderated by firm age
- CC = Outsourced Accounting Functions based Capability Complementarity moderated by firm age
- SR = Outsourced Accounting Functions based Strategic Relatedness moderated by firm age
- μ = Error term

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.0 Introduction

The general objective of the quantitative study was to investigate the relationship between accounting outsource drivers and the financial performance of Small and Medium Enterprises (SMEs) in Nigeria. The specific objectives were to determine whether there is an outsourcing relationship between: Asset Specificity and financial performance, Uncertainties and financial performance, Frequency of accounting transactions and financial performance, Capabilities Complementarity and financial performance and Strategic Relatedness and financial performance of SMEs in Nigeria. This chapter has been divided into four parts of analysis: descriptive statistics, data diagnostic tests, inferential statistics and fitting of the conceptual model. The discussions of findings are contextualized in the light of previous studies done in the area.

4.1 Response Rate

An outsourcing of accounting functions questionnaire survey was carried out in three of the six geo-political zones of Nigeria where the SMEs as officially recognised in NBS-SMEDAN document (Appendix VI). The responses were collected on the basis of face to face interaction and interviews with SMEs owners/managers. Throughout the research 520 SMEs owners/managers were contacted by personal visit to each company office as well as approach SMEs owners/managers via Chamber of Commerce, during the monthly meeting of member companies in each state. The number of questionnaires that were administered to all the respondents was 520 questionnaires as per Appendix II. A total of 411 questionnaires were filled and returned from the targeted respondents (representing 79%). However, 109 questionnaires were completely not responded to by the targeted respondents (representing 21%). According to Mugenda and Mugenda (2003), a response rate of 50% or more is adequate. Babbie (2004) also asserted that return rates of 50% are

acceptable to analyze and publish, 60% is good and 70% is rated as being very good. Based on the above, the response rate of 79% for this study was found to be adequate to aid further data analysis process.

Table 4.1 Response rate

Category	Frequency	Percentage
Responded: Valid	411	79
Did not Respond	109	21
Total	520	100

4.2 Descriptive Statistics

4.2.1 General Descriptive Statistics

4.2.1.1 Respondents Position in Organisation

The descriptive results indicated that (64%) of the respondents were owners/SMEs operator while the remaining (36%) were managers who are employees of the SME organisation. This result showed that good number of the owners of SMEs were able to make themselves available to give qualitative responses to the questions raised by the researchers. The managers who responded to the questionnaires were directly involved in day-to-day running of the business affairs hence, they were able to give qualitative responses too as represented in the Table 4.2 and the Figure 4.1 below:

Table 4.2: Respondents Position in the Organisation

Factor Level	Frequency	Percentage
Owner/SMEs Operators	263	64.0
Manager	148	36.0
Total	411	100.0

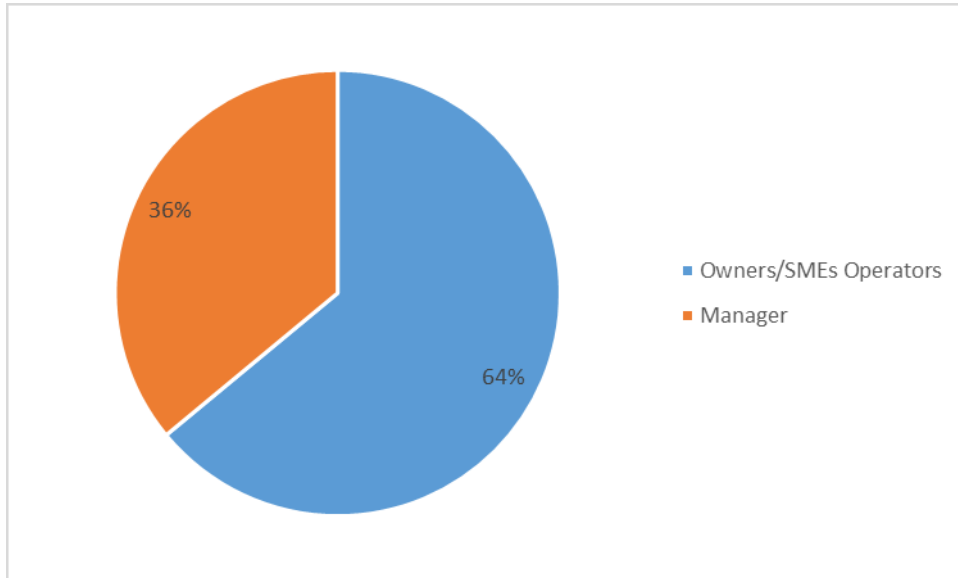


Figure 4.1 Position of respondent in the Organisation

4.2.1.2 Respondents Educational Level

The results of the educational level of the respondents show that 291 respondents (representing 70.8%) had university education and 120 respondents (representing 29.2%) had lower than university degree. The implication of this result is that more of the respondents are literates and appreciate the importance of the study. Consequently, they were able to donate qualitative data to the study. This position is presented in the Table 4.3 and Figure 4.2 below:

Table 4.3: Respondents Educational Level

Factor Level	Frequency	Percentage
University Degree	291	70.8
Lower Than University Degree	120	29.2
Total	411	100.0

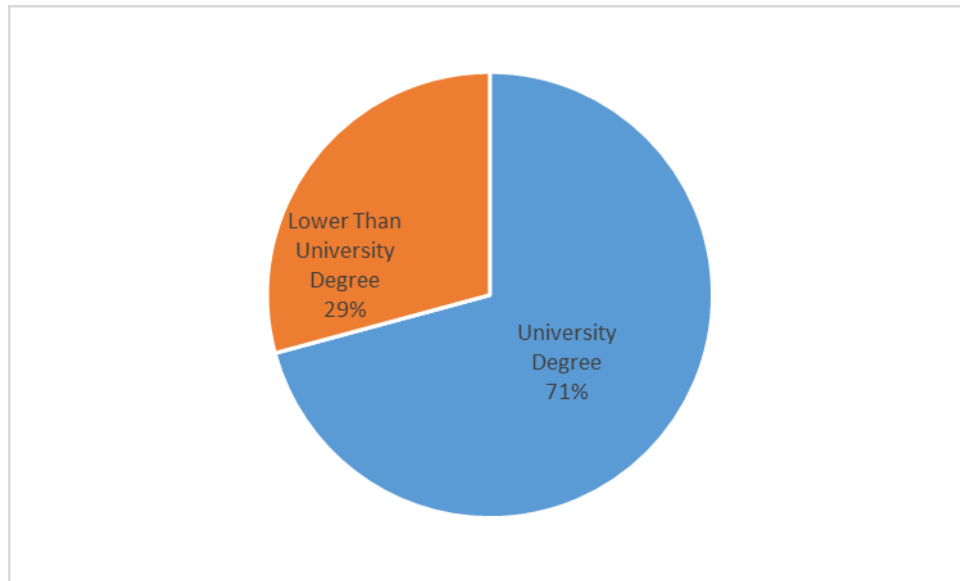


Figure 4.2 Respondents Educational Level

4.2.1.3 Sectors for SMEs in Nigeria

There were 12 sectors officially approved for the operations SMEs in Nigeria (SMEDAN-NBS, 2010). Consequently, this study drew her sample from all these sectors using the proportion of their numbers in their entire population of SMEs in Nigeria vis-à-vis our sample size of 411. Table 4.4 below shows the number of firms from each sector included in the sample for the study. Manufacturing had 97 firms (23.7%) to be the sector with highest number, followed by Financial Intermediary of 64 firms (15.6%) while Building and Construction Sector of 4 firms (1%) had the lowest number of firms in the sample size.

Table 4.4: Sectorial Distribution of SMEs in the Study

Factor Level	Broad Group	Frequency	Percentage
Agriculture, Forestry & Fishing	Manufacturing	10	2.5
Mining & Quarrying	Manufacturing	8	2.0
Manufacturing	Manufacturing	97	23.7
Building & Construction	Manufacturing	4	1.0
Wholesale & Retail	Non-Manufacturing	57	13.8
Hotels & Restaurants	Non-Manufacturing	30	7.2
Transport & Communication	Non-Manufacturing	6	1.5
Financial Intermediation	Non-Manufacturing	64	15.6
Real Estate	Non-Manufacturing	22	5.3
Education	Non-Manufacturing	43	10.4
Health & Social Work	Non-Manufacturing	58	14.0
Social & Personal Services	Non-Manufacturing	12	3.0
Total		411	100.0

The entire distribution of the firms across the official sectors of SMEs in the sample size for the study is graphically presented thus:

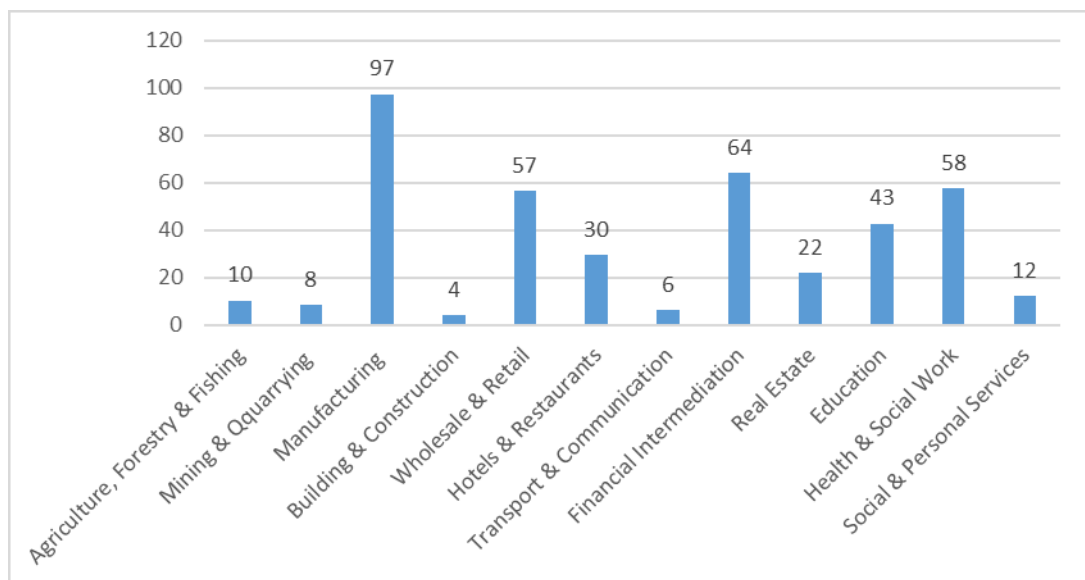


Figure 4.3 SMEs Official Sectors in the Sample

This official sectorial distribution of SMEs in Nigeria forms the basis of grouping the entire sampled organizations into Manufacturing and Non-Manufacturing for easy data diagnostic, analysis and interpretations. Consequently, the total number of Manufacturing SMEs and Non-Manufacturing SMEs for this study are: 119(29%) and 292(71%) respectively. This position is presented in the Table 4.5

Table 4.5: Group Distribution of SMEs in the Study

Factor Level	Frequency	Percentage
Manufacturing	119	29.0
Non-Manufacturing	292	71.0
Total	411	100.0

4.2.1.4 Age of the Respondents Organisation

The study wanted to find out the age of individual firm under the study. The study sought to determine the distribution of age of the firms in order to determine whether age had any influence on outsourcing decision of accounting functions as was argued by Glisson and Martins (1980) that personal variables such as age, gender, and the level of education among others affected business decisions taken in the organization. From the results, 2% of the firms were above 15 years old, 2.8% were 11 – 15 years old, 43% were 6 – 10 years old, 40.2% were 2 – 5 years old and 12% were under 2 years old. The fact that majority (88% of the SMEs) had operated above 2 years guarantees the required experience needed for data reliability because these organisations in this category had high probability of having the experience the research sought to find out in terms of executing their accounting functions and the impact on their financial performance over the years. This position is presented in the Table 4.6 and Figure 4.4 below:

Table 4.6 Age of the Respondents Organisation

Factor Level	Frequency	Percentage
Less than 2years	49	12.0
2-5years	165	40.2
6-10years	177	43.0
11-15years	12	2.8
Above 15years	8	2.0
Total	411	100.0

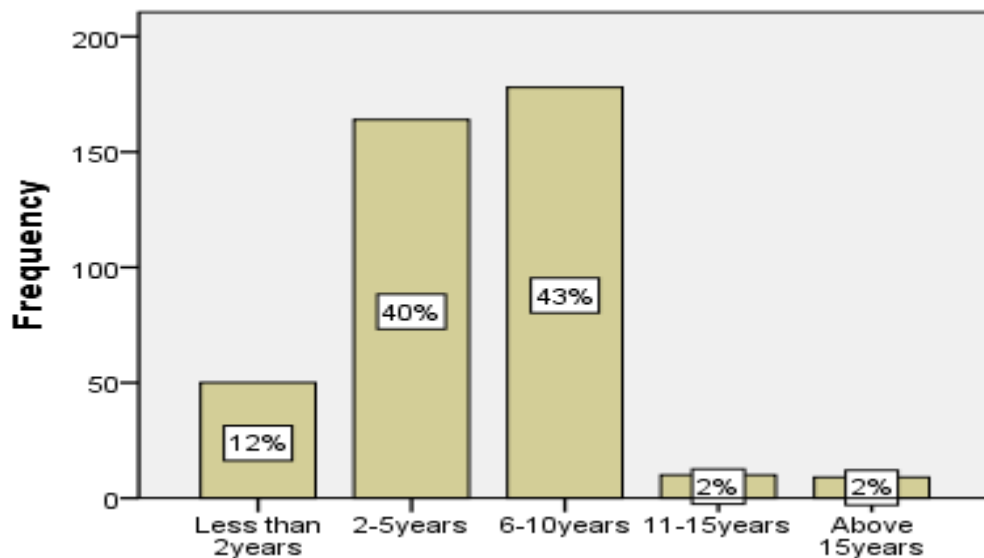


Figure 4.4 Age of the Respondents Organisation

4.2.1.5 Size of the Respondents Organisation

According to Nigeria National Policy on Micro, Small and Medium Enterprises (MSMEs), A Micro Enterprise is an organisation whose total workforce is less than ten employees while a Small Enterprise is an organisation with a total workforce of ten employees but not exceeding forty-nine employees and a Medium Enterprises is an organisation with a total workforce of fifty employees but not exceeding two hundred employees. In the light of this, this study made use of 210 firms (51%) whose total workforce is between 11 and 50 employees in the category of what

officially constitute Small Firms and 201 firms (49%) whose total workforce is between 51 and 200 employees for Medium Firms category. The Small and Medium Scale Enterprises being studied were given almost equal volume of representation in the sample size of 411. Consequently, this position enhanced the study from obtaining a balanced view or unbiased position of each of the business categories as far as the effect of outsourcing accounting functions on financial performances is concerned. This position is presented in the Table 4.7 and Figure 4.4 below:

Table 4.7 Size of the Respondents Organisation

Factor Level	Frequency	Percentage
11-30 employees	112	27.3
31-50 employees	98	23.8
51-100 employees	191	46.5
101-200 employees	10	2.4
Total	411	100.0

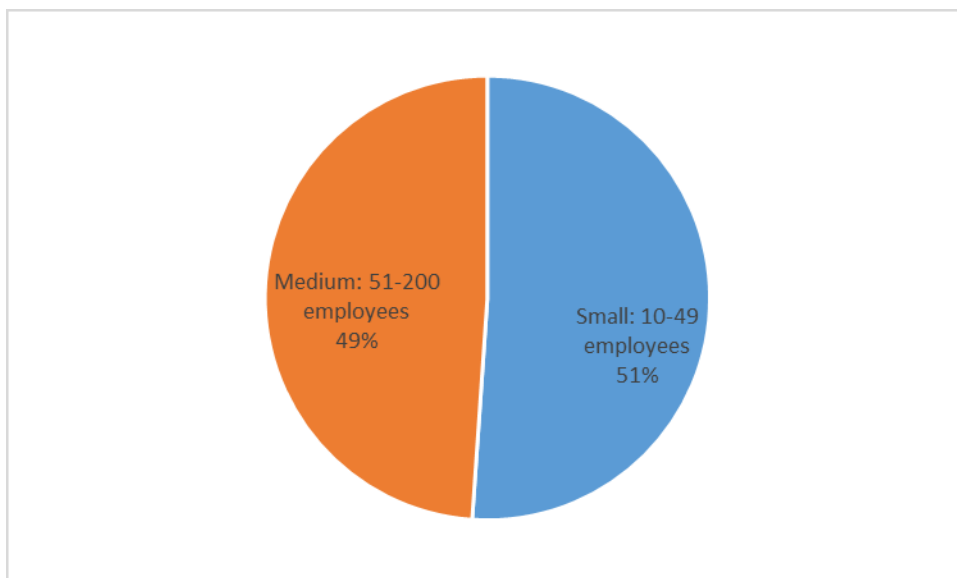


Figure 4.5 Size of the Respondents Organisations

4.2.1.6 Degree of Outsourcing Typical Accounting Functions among SMEs

The study sought to obtain the degree at which various typical accounting functions were outsourced among SMEs. From the Table 4.8 below, eight typical accounting functions were identified which included: General Ledger processing, Account Payables and Receivables, Payroll Accounting, Fixed Asset Accounting, Inventory Accounting, Budgeting, Management Accounting and Tax Management. For the General Ledger processing, 316 firms (77%) outsourced this function while 95 firms

(23%) performed it in-house. For Account Payables and Receivables, 308 firms (75%) outsourced this function while 103 firms (25%) performed it in-house. For Fixed Asset Accounting, 345 firms (84%) outsourced this function while 66 firms (16%) performed it in-house. For Payroll Accounting, 82 firms (20%) outsourced this function while 329 firms (80%) performed it in-house. For Inventory Accounting, 144 firms (35%) outsourced this function while 267 firms (65%) performed it in-house. For Budgeting, 156 firms (38%) outsourced this function while 255 firms (62%) performed it in-house. For Management Accounting, 74 firms (18%) outsourced this function while 337 firms (82%) performed it in-house. For Tax Management, 353 firms (86%) outsourced this function while 103 firms (14%) performed it in-house. From this analysis, it is cleared that SMEs as a group outsourced all the typical accounting functions identified. However, the degree of the outsourcing of each accounting functions differ from one firm to another and also from industry to industry. Major factor responsible for this uncoordinated differences in the outsourcing of typical accounting function could be differential perceived value derivable from such exercises by the SME operators. Succinctly put, what that is value relevance of outsourcing of accounting functions to financial performance of the enterprise? Graphical presentation of variability of outsourcing accounting functions is shown below in figure 4.6:

Table 4.8 Degree of Outsourcing Typical Accounting Functions among SMEs

Main factor	Number of Respondents	
	In-Housed	Outsourced
General Ledger Processing	95 (23%)	316 (77%)
Account Payables/Receivables	103 (25%)	308 (75%)
Payroll Accounting	329 (80%)	82 (20%)
Fixed assets Accounting	66 (16%)	345 (84%)
Inventory Accounting	267 (65%)	144 (35%)
Budgeting	255 (62%)	156 (38%)
Management Accounting	337 (82%)	74 (18%)
Taxation	58 (14%)	353 (86%)

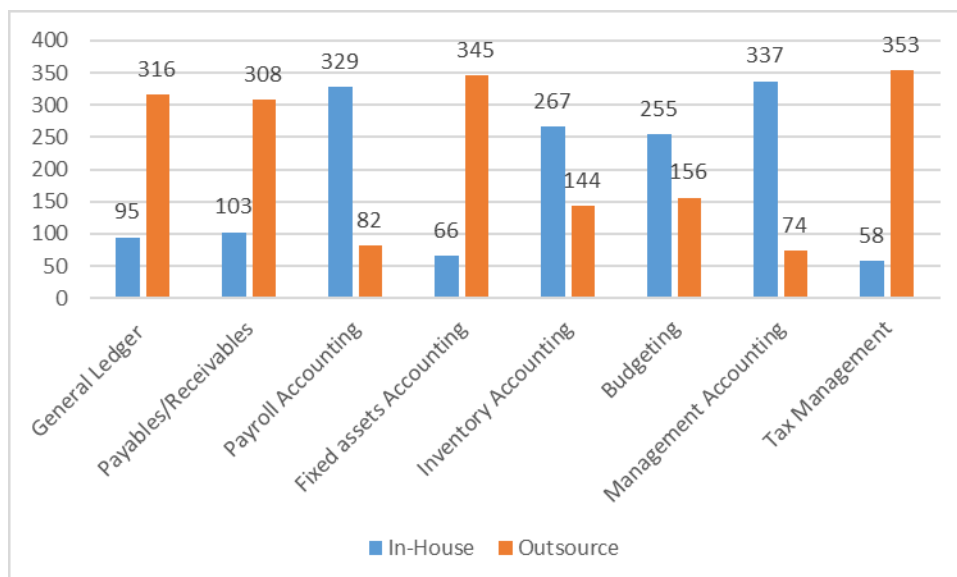


Figure 4.6 Degree of Outsourcing Typical Accounting Functions among SMEs

4.2.2 Descriptive Statistics of Study Variables

The study investigated effect of five conceptualized factors of accounting outsourcing on the financial performance of SMEs in Nigeria, namely asset specificity employed for accounting functions, uncertainties surrounding accounting functions, frequency of accounting functions, capability complementarity from external accountant and strategic relatedness with the external accountants. The study generated sets of questions to which respondents were asked to respond. Findings thereof are hereby presented in tables and figures, analyzed and discussed in relation to what previous scholars found.

4.2.2.1 Analysis of Outsource Relationship between assets specificity employed for accounting functions and the financial performance of SMEs.

The respondents were asked to give the estimate of their organisations investment in specific physical assets employed for the execution of accounting functions within their organizations. The essence of their responses was to cross-tabulate the Investment in specific assets used for accounting functions with the Return on Capital Employed (ROCE) made for each year of study. This assisted the researcher to determine the difference in ROCE made by the organizations that outsourced and those that did not thus, obtaining the effect of outsourced accounting functions on financial performance of organization was facilitated. Table 4.9 shows the different levels of investment in physical assets employed for accounting functions. This was cross-tabulated with the ROCE for each year of the study and also Average ROCE for the 5-year period. The average (mean) for both In-Housing and Outsourcing were obtained for each level of Investment. Thereafter, a simple weighted average was computed to arrive at the total ROCE for both Outsourcing and In-housing situation. Major findings revealed that there is inverse relationship between outsourcing of accounting functions and the investment in specific physical asset employed. More of outsourcing was done at the lowest level of Investment while this was reduced as

this investment increases. However, there was a direct relationship between the In-housing of Accounting functions and the investment in specific physical asset employed. As the level of Investment increases, the organisations in-house the more of the accounting functions.

Therefore, from Table 4.9, at Investment level of: =N0 - =N50 (Outsourcing 84% and In-housing 16%); =N51 - =N200 (Outsourcing 74% and In-housing 26%); =N201 - =N500 (Outsourcing 65% and In-housing 35%); =N501 - =N1,000 (Outsourcing 23% and In-housing 77%) and Above =N1,000 (Outsourcing 18% and In-housing 82%). The final effect showed that the firms that outsourced their accounting functions made a total ROCE of 13.60 against 10.86 made by firms that in-housed these functions. There is a net financial gain of 2.74 resulting from outsourced financial functions.

Table 4.9 Physical Assets Acquired for Accounting and Financial Performance.

Asset Investment	ROCE 2008	ROCE 2009	ROCE 2010	ROCE 2011	ROCE 2012	Average ROCE 5years	OAF_M	Simple Weighted Average	IAF_M	Simple Weighted Average
=N000	Mean	Mean	Mean	Mean	Mean		Mean	6x7	Mean	6x9
	1	2	3	4	5	6	7	8	9	10
=N0 - =N50	4.66	4.92	5.2	5.4	5.8	5.196	.84	4.35	.16	0.83
=N51 - =N200	4.78	5.09	5.15	5.46	5.99	5.294	.74	3.94	.26	1.38
=N201 - =N500	4.85	5.21	5.45	5.6	6.28	5.478	.65	3.56	.35	1.92
=N501 - =N999	4.04	4.2	4.38	4.38	4.59	4.318	.23	0.99	.77	3.31
Over =N1,000	3.71	3.93	4.17	4.17	4.67	4.13	.18	0.75	.82	3.42
EFFECT								13.60		10.86

ROCE = Return on Capital Employed
OAF_M = Average Outsourced Accounting Functions
IAF_M = Average In-Housed Accounting Functions

The respondents were asked to give how much of the equipment in their accounting department is especially designed or unique compared to equipment used for similar activities in other companies. This question was necessary in order to ascertain the degree of specificity of physical assets being employed to execute accounting

functions in the respective organisations. The responses obtained were analyzed in Table 4.10 below. Considering the size of the organisations, out of the 210 small enterprises sampled, 190 (90.5%) affirmed the uniqueness of the equipment employed in the accounting departments of their organisations relative to the other organisations engaging in similar functions and 161 respondents (80.1%) out of 201 respondents for the medium enterprises. Also, by considering the sectors of the respondents organisations, out of the 119 small enterprises sampled for Manufacturing sector, 114 (95.8%) affirmed the uniqueness of the equipment employed in the accounting departments of their organisations relative to the other organisations engaging in similar functions and 280 respondents (95.9%) out of 292 respondents for the SMEs in Non-manufacturing sector. This results clearly shows that the equipment employed for the accounting functions by the SMEs in Nigeria are specific and high, for instance, Accounting Software Packages.

Table 4.10 Uniqueness of Equipment in Accounting Department

Response	Firms Size			Manufacturing and Non-Manufacturing		
	Small	Medium	Total	Manufacturing	Non-Manufacturing	Total
None	9 (4.3 %)	2 (1.0%)	11 (2.7%)	3 (2.5%)	8 (2.7%)	11 (2.7%)
Some	11 (5.2%)	39 (19.4%)	50 (12.2%)	2 (1.7%)	4 (1.4%)	6 (1.5%)
About Half	21 (10.0%)	18 (9.0%)	39 (9.5%)	6 (5.0%)	80 (27.4%)	86 (20.9%)
Most	142 (67.6%)	122 (60.7%)	264 (64.2%)	96 (80.7%)	159 (54.5%)	255 (62.0%)
All	27 (12.9%)	20 (10.0%)	47 (11.4%)	12 (10.1%)	41 (14.0%)	53 (12.9%)
Total	210 (100.0%)	201 (100.0%)	411 (100.0%)	119 (100.0%)	292 (100.0%)	411 (100.0%)

The respondents were asked to give the estimate of their organisations investment in specific human assets employed for the execution of accounting functions within their organizations. The essence of their responses was to cross-tabulate the Investment in specific assets used for accounting functions with the Return on Capital Employed (ROCE) made for each year of study. This assisted the researcher to determine the difference in ROCE made by the organizations that outsourced and those that did not thus, obtaining the effect of outsourced accounting functions on

financial performance of organization was facilitated. Table 4.11 below shows the different levels of investment in human assets employed for accounting functions. This was cross-tabulated with the ROCE for each year of the study and also Average ROCE for the 5-year period. The average (mean) for both In-Housing and Outsourcing were obtained for each level of Investment. Thereafter, a simple weighted average was computed to arrive at the total ROCE for both Outsourcing and In-housing situation. Major findings revealed that there is inverse relationship between outsourcing of accounting functions and the investment in specific human asset employed. More of outsourcing was done at the lowest level of Investment while this was reduced as this investment increases. However, there was a direct relationship between the In-housing of Accounting functions and the investment in specific human asset employed. As the level of Investment increases, the organisations in-house the more of the accounting functions.

Therefore, from Table 4.11, at Investment level of: =N0 - =N50 (Outsourcing 92% and In-housing 8%); =N51 - =N200 (Outsourcing 86% and In-housing 14%); =N201 - =N500 (Outsourcing 71% and In-housing 29%); =N501 - =N1,000 (Outsourcing 42% and In-housing 58%) and Above =N1,000 (Outsourcing 23% and In-housing 77%). The final effect showed that the firms that outsourced their accounting functions made a total ROCE of 15.99 against 10.86 made by firms that in-housed these functions. There is a net financial gain of 5.13 resulting from outsourced financial functions.

Table 4.11 Investment in Human Assets for Functions and Financial Performance.

Asset Investment		ROCE 2008	ROCE 2009	ROCE 2010	ROCE 2011	ROCE 2012	Average ROCE 5years	OAF_M	Simple Weighted Average	IAF_M	Simple Weighted Average
=N000	f	Mean	Mean	Mean	Mean	Mean	Mean	Mean	6x7	Mean	6x9
		1	2	3	4	5	6	7	8	9	10
N0 - 50	95	4.66	4.92	5.2	5.4	5.8	5.196	0.92	4.78	0.08	0.42
N51 - 200	102	4.78	5.09	5.15	5.46	5.99	5.294	0.86	4.55	0.14	0.74
N201-500	156	4.85	5.21	5.45	5.6	6.28	5.478	0.71	3.89	0.29	1.59
N501-1000	48	4.04	4.2	4.38	4.38	4.59	4.318	0.42	1.81	0.58	2.5
> =N1,000	10	3.71	3.93	4.17	4.17	4.67	4.13	0.23	0.95	0.77	3.18
EFFECT	411								15.99		8.43

ROCE = Return on Capital Employed
OAF_M = Average Outsourced Accounting Functions
IAF_M = Average In-Housed Accounting Functions

The respondents were further asked to give how unique are the skills and knowledge of the accounting staff compared to the skills and knowledge of employees of other companies who work on similar activities. This question was necessary in order to ascertain the degree of specificity of human assets being employed to execute accounting functions in the respective organisations. The responses obtained were analyzed in table 4.12 below. Considering the size of the organisations, out of the 210 small enterprises sampled, 196 (93.3%) affirmed the uniqueness of the skills and knowledge employed in the accounting departments of their organisations relative to the other organisations engaging in similar functions and 176 respondents(97.5%) for the medium enterprises. Also, by considering the sectors of the respondents organisations, out of the 119 small enterprises sampled for Manufacturing sector, 114 (95.8%) affirmed the uniqueness of the equipment employed in the accounting departments of their organisations relative to the other organisations engaging in similar functions and 284 respondents(97.3%) for the Non-manufacturing sector. This results clearly shows that the human skills and knowledge employed for the accounting functions by the SMEs in Nigeria are specific and high, for instance, appropriate knowledge of local and international accounting standards/practices.

Table 4.12 Uniqueness of the skills and knowledge of the accounting staff .

Response	Firms Size			Manufacturing and Non-Manufacturing		
	Small	Medium	Total	Manufacturing	Non-Manufacturing	Total
Not Unique	2 (10.0%)	5 (2.5%)	7 (1.7%)	2 (1.7%)	5 (1.7%)	7 (1.7%)
Little Unique	11 (5.2%)	18 (9.0%)	29 (7.1%)	4 (3.4%)	7 (2.4%)	11 (2.7%)
Somewhat unique	33 (15.7%)	17 (8.5%)	50 (12.2%)	7 (5.9%)	55 (18.8%)	62 (15.1%)
Quite Unique	102 (48.6%)	122 (60.7%)	224 (54.5%)	91 (76.5%)	157 (53.8%)	248 (60.3%)
Very Unique	62 (29.5%)	39 (19.4%)	101 (24.6%)	15 (12.6%)	68 (23.3%)	83 (20.2%)
Total	210 (100.0%)	201 (100.0%)	411 (100.0%)	119 (100.0%)	292 (100.0%)	411 (100.0%)

To ascertain the importance of accounting functions in the entire business processes of the organization, the respondents were asked to state the extent of their Accounting Departments actions on the work carried out in other subunits of the organization. The responses obtained were analyzed in table 4.13 below. Considering the size of the organizations, out of the 210 small enterprises sampled, 167 (79.5%) affirmed that the actions of the Accounting Departments impacted to a great extent on the work carried out in other subunits of their organizations and 170 respondents (84.6%) out of 201 respondents for the medium enterprises. Also, by considering the sectors of the respondents organizations, out of the 119 small enterprises sampled for Manufacturing sector, 101 (84.9%) affirmed that the actions of the Accounting Departments impacted to a great extent on the work carried out in other subunits of their organizations and 213 respondents (73.0%) out of 292 respondents for the Non-manufacturing sector. This results clearly shows that the Accounting Departments actions impact, to a great extent, on the work carried out in other subunits of the organizations.

Table 4.13 Extent of Accounting Departments actions on other subunits .

Response	Firms Size			Manufacturing and Non-Manufacturing		
	Small	Medium	Total	Manufacturing	Non-Manufacturing	Total
None	6 (2.9%)	3 (1.5%)	9 (2.2%)	4 (3.4%)	3 (1.0%)	7 (1.7%)
Little Extent	8 (3.8%)	12 (6.0%)	20 (4.9%)	3 (2.5%)	5 (1.7%)	8 (1.9%)
SomeExtent	29 (13.8%)	16 (8.0%)	45 (10.9%)	11 (9.2%)	71 (24.3%)	82 (20.0%)
Great Extent	113 (53.8%)	145 (72.1%)	258 (62.8%)	82 (68.9%)	164 (56.2%)	246 (59.9%)
Very Great Extent	54 (25.7%)	25 (12.4%)	79 (19.2%)	19 (16.0%)	49 (16.8%)	68 (16.5%)
Total	210 (100%)	201 (100%)	411 (100%)	119 (100%)	292 (100%)	411 (100%)

Asset specificity concerns opportunity costs of investments (in physical and human assets) made to support an activity (Speklé, 2004). Central concern is whether investments made in specific assets can be redeployed (Williamson, 1985). If the assets cannot be redeployed, the investments will be considered a loss in case of determination of this activity that exploits these assets. Imagine, for example, machinery that can only produce one component. If it cannot be used for the production of anything else, nor be of any use in a similar organizational unit of another company, opportunity costs of investing in this machinery are significant and asset specificity is high. According to Chang *et al.*, (2009) when asset specificity is low it is most likely that business function might be governed by outsourcing and vice-visa.

Furthermore, Everaert *et al.*, (2010) found that there is a significant association between accounting outsourced based on asset specificity and financial performance of the organisation. Therefore, TCE and Strategic View literature argue that asset specificity is a vital part to consider in profitability of the organization (Wattjatrakul, 2005; Everaert *et al.*, 2010). The proposition here is that when asset specificity of the accounting functions increases, firms are expected to internalise those functions for a good performance in terms of asset utilization (Speklé *et al.*, 2007). Conversely, low

asset specificity of accounting functions would motivate firms to outsource accounting functions (Widener & Selto, 1999). The result of this descriptive analysis shows that there is high asset specificity for the assets employed by the Nigerian SMEs for the execution of their accounting functions hence, the position of Speklé *et al.*, 2007 is applicable to ensure optimal asset utilization.

4.2.2.2 Analysis of Outsourcing Relationship between uncertainties surrounding accounting functions and the financial performance of SMEs

The respondents were asked if their organisations experienced incessant changes in the accounting standards and policies in the previous years. The essence of this question was to obtain the volatility of the environment in which the accounting functions are performed. Unstable environment leads Authorities in-charge of monitoring accounting profession to review the standards and policies in order to reflect economic reality. The responses obtained were analyzed in Table 4.14. Out of the total respondents of 411, 282 respondents (68.6%) confirmed that their organisations have experienced frequent changes in the accounting standards and policies in the recent years while 129 respondents (31.4%) disagreed. The confirming respondents recorded for the five years total average of ROCE of 4.62 and 88% of them outsourced their accounting function while 12% did not. Therefore, by applying simple weighted average, the organisations that confirmed frequent changes and also Outsourced achieved a ROCE of 4.06 while the other organisations that confirmed frequent changes and but in-housed their accounting functions achieved a ROCE of 0.55. On the other hand, the disagreed respondents recorded for the five years total average of ROCE of 4.73 and 34% of them outsourced their accounting function while 66% did not. Therefore, by applying simple weighted average, the organisations that did not confirm frequent changes and but outsourced achieved a ROCE of 1.61 while the other organisations that did not confirm frequent changes and in-housed their accounting functions achieved a ROCE of 3.12. These results clearly shows that organisations outsource their accounting functions more when

there is frequent changes to the rules of the game. This enables them to minimize their exposures to risk of non-compliance and the attendant penalties. However, organization in-house their accounting functions when the accounting standards and policies are stable since the situation is predictable and what is expected of them is known with certainty. The final effect of this outsourcing strategy is that an organization that outsourced her accounting functions make more financial gains than the others who did not outsource when there exit upward movement in the uncertainties surrounding the performance of accounting functions.

Table 4.14 Changes to accounting standards/policies and financial performance

Accounting Standards/Policies	F	ROC	ROC	ROC	ROC	ROC	Average ROCE 5years	OAF_M	Simple Weighted Average	IAF_M	Simple Weighted Average
		2008	2009	2010	2011	2012		Mean	Mean	6x7	Mean
		1	2	3	4	5	6	7	8	9	10
YES	28	4.20	4.43	4.65	4.70	5.10	4.62	0.88	4.06	0.12	0.55
NO	12	4.41	4.62	4.48	4.92	5.23	4.73	0.34	1.61	0.66	3.12
Financial Performance	41								5.67		3.68

ROCE = Return on Capital Employed
OAF_M = Average Outsourced Accounting Functions
IAF_M = Average In-Housed Accounting Functions
f = Frequency

The result obtained in table 4.14 was further confirmed by asking the respondents if their organisations experience frequent technological changes in the way accounting functions were processed in the previous recent years. This was necessary a question to determine the accounting outsource strategy and it effect on the financial performance of the organisations. Their responses were analysed in table 4.15. The result in table 4.14 is confirmed here in Table 4.15 as more outsourcing of accounting functions were embarked upon because of frequent changes in technology that directly influence the way and manner the accounting functions are performed. Consequently, in both table4.14 and 4.15 more financial gains accrued to organization who outsourced her accounting functions as uncertainty surrounding the function rises.

Table 4.15 Frequent Technological Changes and the financial performance

Technological Changes	f	ROCE	ROCE	ROCE	ROCE	ROCE	Average	OAF_M	Simple Weighted	IAF_M	Simple Weighted
		2008	2009	2010	2011	2012	ROCE 5years	Mean	Average 6x7	Mean	Average 6x9
		1	2	3	4	5	6	7	8	9	10
YES	302	4.11	4.55	4.72	4.88	5.02	4.66	0.92	4.28	0.08	0.37
NO	109	4.32	4.44	4.60	4.80	5.28	4.69	0.18	0.84	0.72	3.38
Financial Performance	411								5.13		3.75

ROCE = Return on Capital Employed
OAF_M = Average Outsourced Accounting Functions
IAF_M = Average In-Housed Accounting Functions
f = Frequency

According to Everaert et al., (2010) Accounting functions of every organization are surrounded by environmental, behavioral and technological uncertainties which depict the unpredictability and instability of the workload involved due to the volatility of business activities. This needs time that the managements of the SMEs may not have or may not be able to reduce the flexibility needed to deal with these fluctuations in the accounting functions workload in a well-timed fashion (Nicholson *et al.*, 2006). From the result obtained here, it is obvious that the execution of accounting functions by SMEs is surrounded by greater number of uncertainties with the attendant risk. Consequently, the risk is better shared, through outsourcing, with external accountants who have the time and expertise to deal with good number of the uncertainties.

4.2.2.3 Analysis of Outsourcing Relationship between frequency of accounting transactions and the financial performance of SMEs

The respondents were asked to state how often the typical accounting functions occur in their businesses to determine the frequency of accounting transactions. From the responses received the Table 4.16 above shows the recurrence of each accounting functions as follows: General Ledger Processing was mostly executed between daily and weekly as indicated by 95.5% of the total respondents while Payable/Receivables were mostly executed between daily and weekly as indicated by

94% of the total respondents. Payroll Accounting mostly executed between weekly and monthly; Fixed Asset Accounting, Budgeting Activities and Taxation processing occurred between half yearly and yearly. Inventory Accounting and Management Accounting Practices mostly occurred between monthly and quarterly.

Table 4.16 Frequency of accounting functions in Respondents business

	Yearly	Half	Quarterly	Monthly	Weekly	Daily	Subtotal	Standard Mean	Deviation
		yearly							
General Ledger Processing	0.0%	0.0%	1.8%	2.7%	32.4%	63.1%	4		1
Payables/Receivables	0.0%	0.0%	2.3%	3.7%	71.7%	22.3%	3		1
Payroll Accounting Processing.	0.0%	0.0%	1.3%	78.1%	15.1%	5.5%	3		1
Fixed Asset Accounting	45.7%	22.1%	16.5%	0.2%	1.5%	0.0%	2		1
Inventory Accounting	3.7%	7.3%	55.5%	29.5%	2.5%	2.0%	2		1
Budgeting Activities	65.0%	20.2%	5.8%	5.8%	3.2%	0.0%	3		1
Management Accounting Practices	1.5%	1.2%	50.1%	38.0%	14.2%	2.0%	2		1
Taxation Processing	71.8%	23.1%	4.1%	1.0%	0.0%	0.0%	2		1

In furtherance to this recurrence of these accounting functions among the organization, table 4.17 shows the analysis of responses on the recurrence of General Ledger Processing and the effect on the financial performance of the organization. It was seen that SMEs in-housed the accounting functions that were executed at shortest interval like daily and weekly. However, the longer the interval the more consideration was given to outsourcing. The basis for this in-housing decision is to prevent likely undue delay, with its attendant consequences, that may emanate from the external exchange partners. This strategy would see the organization earning more financial gains under in-house (ROCE of 14.19) as against the outsourcing (ROCE of 4.50).

Table 4.17 Recurrence of Processing and the Financial Performance

General Ledger Processing	Frequency	ROC	ROC	ROC	ROC	ROC	Average ROCE 5years	OAF_	Simple	IAF_	Simple
		E	E	E	E	E		M	Weighted	M	Weighted
		2008	2009	2010	2011	2012		Mean	Average 6x7	Mean	Average 6x9
		1	2	3	4	5	6	7	8	9	10
Daily	259	4.20	4.43	4.65	4.70	5.10	4.62	0.11	0.51	0.89	4.11
Weekly	133	4.32	4.44	4.60	4.80	5.28	4.69	0.2	0.94	0.8	3.75
Monthly	11	4.11	4.55	4.72	4.88	5.02	4.66	0.29	1.35	0.71	3.31
Quarter	8	4.41	4.62	4.48	4.92	5.23	4.73	0.36	1.70	0.64	3.03
Half-yrly	0										
Yearly	0										
Fin.Perfo	411								4.50		14.19

ROCE = Return on Capital Employed
OAF_M = Average Outsourced Accounting Functions
IAF_M = Average In-Housed Accounting Functions
f = Frequency

To examine the second aspect of frequency of accounting transaction which is the size of accounting functions for each batch processing, table 4.18 shows the analysis of responses on the organisations volume of General Ledger Processing for each batch and the effect on the financial performance of the organization. It was seen that SMEs in-housed the accounting functions that were executed at high volume per batch. The SMEs reduced accounting outsourcing as the value of each batch processes increases and support more of in-housing. The basis for this in-housing decision is to afford the organization the opportunity of enjoying economies of large scale production thus improving her financial performance. This strategy would see the organization earning more financial gains under in-house (ROCE of 17.11) as against the outsourcing (ROCE of 6.03).

Table 4.18 Size of Each Batch Processing and the Financial Performance

General Ledger per batch	F	ROC	ROC	ROC	ROC	ROC	Average	OAF_	Simple	IAF_	Simple
		E	E	E	E	E	ROCE	M	Weighted	M	Weighted
=N000		2008	2009	2010	2011	2012	5years	Mean	Average	Mean	Average
		Mean	Mean	Mean	Mean	Mean		Mean	6x7	Mean	6x9
		1	2	3	4	5	6	7	8	9	10
N1 – 50	18	4.11	4.23	4.65	4.70	4.82	4.50	0.42	1.89	0.58	2.61
N51 – 100	14										
	2	4.26	4.29	4.33	4.39	4.54	4.69	0.33	1.55	0.67	3.14
N101 - 200	65	4.06	4.22	4.59	4.88	4.92	4.53	0.24	1.09	0.76	3.45
N201 - 500	15	4.41	4.62	4.48	4.92	5.23	4.73	0.18	0.85	0.82	3.88
Over N500	7	4.32	4.44	4.60	4.80	5.28	4.69	0.14	0.66	0.86	4.03
Financial Performance	411								6.03		17.11

ROCE = Return on Capital Employed
OAF_M = Average Outsourced Accounting Functions
IAF_M = Average In-Housed Accounting Functions
f = Frequency

Frequency of accounting transaction refers to the repetitiveness and volume of similar transactions (Lamminmaki, 2007). Based on Transaction Cost Economies (TCE), while the extent of a transaction increases, the transaction should be managed internally as a result of the production economies that can be achieved (Lamminmaki, 2009). In the context of accounting, Everaert et al., (2010) present frequency as periodicity and size of the activity. It is stated that the periodicity and size of accounting functions have an effect on accounting function outsourcing intensity (Speklé *et al.*, 2007). Thus, the findings about the SMEs in Nigeria from tables 4.17 and 4.18 supported the position of Everaert et al., (2010) and Speklé *et al.*, (2007). It is indicated that the higher the frequency of transactions, the more likely in-sourcing will be adopted (Reeves *et al.*, 2010). An implication of this argument is that as frequency of accounting functions increases, SMEs prefer to develop such functions internally in order to enhance the firms financial performance by enjoying economies of large scale production (Speklé *et al.*, 2007; Nicholson *et al.*, 2006).

4.2.2.4 Analysis of Outsourcing Relationship between Capability Complementarity received from exchange partners and the financial performance of SMEs

The respondents were asked to give a major specialized capability that their organizations obtained from the external accounting services providers which complimented the internal capabilities endowment in the previous years. The responses given are contained in table 4.19. 167 respondents (40.63%) confirmed that their organisations obtained working capital management techniques from the exchange partners. They were followed by 91 respondents (22.14%) who confirmed tax and tax management. Thereafter, we have 68 respondents (16.55%) confirming budget and budgeting techniques, 54 respondents (13.14%) confirmed creation/maintenance of Fixed Asset register and finally 31 respondents (7.54%) confirmed capability in setting up a good accounting system.

Table 4.19 Specialized Capability Enjoyed from Exchange Partners

Response	Frequency	%
Creation/Maintenance of Fixed Assets Register	54	13.14
Working Capital Management techniques	167	40.63
Budget and Budgeting Techniques	68	16.55
Tax and Tax Management	91	22.14
Setting up Accounting System	31	7.54
Total	411	100.00

The respondents were asked to state a major way that the outsourcing of accounting functions had assisted their organisations in internal decision making process. This question was necessary in order to ascertain the synergetic benefit inflowing from the hired services of the exchange partners. The responses obtained were analysed in table 4.20.

Table 4.20 Capability Complementary Areas and the Financial Performance

Areas of Internal Decision Making	f	ROC	ROC	ROC	ROC	ROC	Averag	OAF_	Simple	IAF_	Simple
		E	E	E	E	E	e	M	Weighte	M	Weighte
		2008	2009	2010	2011	2012	5years		Average		Average
		Mean	Mean	Mean	Mean	Mean		Mean	6x7	Mean	6x9
		1	2	3	4	5	6	7	8	9	10
Make/ Buy	78	4.11	4.23	4.65	4.70	4.82	4.50	0.71	3.20	0.29	1.31
J- Venture	69	4.26	4.29	4.33	4.39	4.54	4.69	0.66	3.09	0.34	1.59
Stock Mgt	122	4.06	4.22	4.59	4.88	4.92	4.53	0.73	3.31	0.27	1.22
Pricing	101	4.41	4.62	4.48	4.92	5.23	4.73	0.88	4.16	0.12	0.57
CapitalMix	41	4.32	4.44	4.60	4.80	5.28	4.69	0.7	3.28	0.3	1.41
Financial Performa	411								17.05		6.10

ROCE = Return on Capital Employed
OAF_M = Average Outsourced Accounting Functions
IAF_M = Average In-Housed Accounting Functions
f = Frequency

When complementary capabilities are linked together, they are difficult for competitors to duplicate because imitation is not only obtaining the capabilities from intermediate markets, but also being able to create similar environment their deployment along a value chain of the organisation (Holcomb et al., 2006). Research suggests that firms participating in exchange relationships that involve complementary capabilities perform better than firms with relationships that are formed to achieve cost economies (Holcomb et al., 2006). From the table 4.20 it was clear that organisations who outsourced accounting functions based on capability complementarity achieved more financial gains than those organisations that did not. This position is in agreement with Dyer and Singh, (1998) who affirm that complementary resources can help a firm improve scale economies, enhance responsiveness and innovative potential, and robust bottom-line. Furthermore, because complementary capabilities are generally relationship-specific the value created may be unavailable to rivals through alternative sources (e.g. private; Barney, 1988), which may create a sustainable competitive advantage. Thus, outsourcing relationships are more important to value-creating activities when these relationships provide specialized capabilities that are complementary to those currently held by a

firm, especially when the integration of those capabilities across a value chain create private and uniquely valuable synergy.

4.2.2.5 Analysis of Outsourcing Relationship between Strategic Relatedness created with the exchange partners and the financial performance of SMEs

The respondents were asked to state their organisations objective of outsourcing accounting functions to external accountants. This question was necessary in order to ascertain each SMEs motives of getting the accounting functions done through intermediate market. Responses to this question were analyzed in table 4.21 with special reference to the return on capital employed made by organisations that outsourced accounting functions and the organisations that did not. 129 respondents (31.39%) confirmed that their organisations objectives of accounting outsourcing was to focus on their areas of core competences and followed by 123 respondents (29.93%) who confirmed their organisations objective for outsourcing accounting functions was to minimize cost. 79 respondents (19.22%) confirmed that their own organisations objective for outsourcing accounting functions was to enjoy the expertise of the external accountants and 59 respondents (14.36%) to form strategic alliance with external accounting experts. Finally, 21 respondents (5.11%) confirmed that their organisations was just following the order of the day by outsourcing their accounting functions. Relating their responses to the financial positions of their organisations to obtain the average ROCE for the 5years of study which was split, using simple weighted average, between organisations that outsourced accounting functions and the ones that did not.. The result showed that organisations that outsourced accounting functions made more financial gains than organisations that in-housed the functions for every given objective for outsourcing.

Table 4.21 Objective of Outsourcing and financial performance of SMEs

Objective of Accounting Outsourcing	F	ROCE	ROCE	ROCE	ROCE	ROCE	Average	OAF_M	Simple Weighted	IAF_M	Simple Weighted
		2008	2009	2010	2011	2012	ROCE	Mean	Average	Mean	Average
		Mean	Mean	Mean	Mean	Mean	5years	6x7	6x9		
		1	2	3	4	5	6	7	8	9	10
Minimize Cost	123	4.17	4.32	4.87	4.89	4.91	4.63	0.65	3.01	0.35	1.62
External Expertise	79	4.32	4.44	4.60	4.80	5.28	4.69	0.72	3.38	0.28	1.31
Forming Strategic Alliance	59	4.11	4.55	4.72	4.88	5.02	4.66	0.59	2.75	0.41	1.91
Focus on Core Competence	129	4.32	4.44	4.60	4.80	5.28	4.69	0.89	4.17	0.11	0.52
Order of the Day	21	4.06	4.19	4.32	4.44	4.87	4.38	0.45	1.97	0.55	2.41
Financial Performance	411								15.27		7.77

ROCE = Return on Capital Employed
OAF_M = Average Outsourced Accounting Functions
IAF_M = Average In-Housed Accounting Functions
f = Frequency

The respondents were asked to state when last they discussed and agreed their organisations objective of outsourcing accounting functions with the external accountants. This question was necessary in order to ascertain that both parties are working towards the same goal. The educational level and exposure of the SMEs owners/managers come into play here too to show the degree of appreciating the essence goal review by the parties. Responses were analyzed in table 4.22. Considering the educational level of the respondents with University Degree, the 291 respondents in this category gave the following time period when last they discussed and agreed their organisations objective for accounting outsourcing: below a year ago 164 (56.3%), 2-5years ago 87 (29.9%), Above 5years ago 18 (6.2%) and Never 22 (7.6%). For the respondent with educational level below University Degree, the 120 respondents also gave the following time period when last they discussed and agreed their organisations objective for accounting outsourcing: below a year ago 12 (10.0%), 2-5years ago 33 (27.5%), Above 5years ago 20 (16.7%) and Never 55 (25.8%). From this result, more of the SME owners/managers with University Degree set shorter period for reviewing their objective with their external accounting service providers while the result showed that SME owners/managers with less than University Degree did not appreciate the importance of short time duration for the

reviewing of their objectives with the external accountants. In fact 55 (x%) respondents in this category never discussed and agreed any objective with their external accountants hence, tendency for the parties to be working at cross purposes may never be ruled out in their accounting outsourcing relationship.

Table 4.22 Discussion and Agreement of Organisations Objective of Outsourcing

Response	Educational Level		
	University Degree	Below University Degree	Total
Below a year ago	164 (56.3%)	12 (10.0%)	176 (42.8%)
2-5years ago	87 (29.9%)	33 (27.5%)	120 (29.2%)
Above 5years ago	18 (6.2%)	20 (16.7%)	38 (9.2%)
Never	22 (7.6%)	55 (45.8%)	77 (18.7%)
Total	291 (100.0%)	120 (100.0%)	411 (100.0%)

The respondents were asked to state their organisations yardstick for measuring the external Accounting Service Providers support. This question was necessary in order to determine the monitoring strategy of the organization for this outsourcing relationship. The responses were analyzed with special reference to the sectorial distribution as contained in table 4.23. Considering the Manufacturing sector, the 119 respondents in this category provided the following yardstick for measuring the external Accounting Service Providers support: Timeliness of output 23 (19.3%), Relevance of output 70 (58.8%), Adequacy of output 12 (10.1%), Stability of Agreement 4 (3.4%) and Availability of Service Provider 10 (8.4%). For the respondent in Non-Manufacturing sector, 292 respondents in this category provided the following yardstick for measuring the external Accounting Service Providers support: Timeliness of output 111 (38.0%), Relevance of output 77 (26.4%), Adequacy of output 57 (19.5%), Stability of Agreement 14 (4.8%) and Availability of Service Provider 33 (11.3%). This result shows that more of firms in the

manufacturing sector use relevance of output to measure the support of the accounting service providers while more of firms in non-manufacturing use timeliness of output.

Table 4.23 Yardstick for measuring the Accounting Service Providers support

Response	Manufacturing and Non-Manufacturing		
	Manufacturing	Non-Manufacturing	Total
Timeliness of Output	23 (19.3%)	111 (38.0%)	134 (32.6%)
Relevance of Output	70 (58.8%)	77 (26.4%)	147 (35.8%)
Adequacy of Output	12 (10.1%)	57 (19.5%)	69 (16.8%)
Stability of Agreement	4 (3.4%)	14 (4.8%)	18 (4.4%)
Availability of Service Provider	10 (8.4%)	33 (11.3%)	43 (10.5%)
Total	119 (100.0%)	292 (100.0%)	411 (100.0%)

The respondents were asked if their organizations establish Knowledge Sharing Plans with the Accounting Service Providers. This question was necessary in order to assess if there is easy flow of strategic information between the parties involved in the accounting outsourcing relationship. The responses obtained were analyzed by making special references to the sectorial distribution as contained in table 4.24. Considering the manufacturing sector, out of the 119 respondents sampled, 30 (25.2%) agreed that their organizations establish Knowledge Sharing Plans with the Accounting Service Providers and 89 (74.8%) respondents stated that such plans did not exist in their organisations. Non-Manufacturing sector on the other hand, out of 292 respondents engaged 218 (74.7%) respondents agreed that their organizations establish Knowledge Sharing Plans with the Accounting Service Providers and 74 (25.3%) respondents stated that such plans did not exist in their organisations. This

analysis shows that the establishment of knowledge sharing plan is more common among the SMEs in the non-manufacturing sector in Nigeria.

Table 4.24 Knowledge Sharing Plans with the Accounting Service Providers.

Response	Manufacturing	Non-Manufacturing	Total
Yes	30 (25.2%)	218 (74.7%)	248 (60.3%)
No	89 (74.8%)	74 (25.3%)	163 (39.7%)
Total	119 (100%)	292(100%)	411(100%)

The respondents were asked to identify their organisations platform for Knowledge Sharing Plans with the Accounting Service Providers. The responses obtained were analyzed by making special references to the sectorial distribution as contained in table 4.25. Considering the manufacturing sector, the 119 respondents engaged identified the following platforms as established by their organisations for Knowledge Sharing Plans with the Accounting Service Providers: Training Arrangement 6 (5%), Newsletters from External Accountants 13 (10.9%), Dailies and Periodicals 7 (5.9%), References to Pronouncement from government and professional bodies 4 (3.4%) and non-existence of such platform 89 (74.8%). Non-manufacturing sector, the 292 respondents engaged identified the following platforms as established by their organisations for Knowledge Sharing Plans with the Accounting Service Providers: Training Arrangement 113 (38.7%), Newsletters from External Accountants 64 (21.9%), Dailies and Periodicals 22 (7.5%), References to Pronouncement from government and professional bodies 19 (6.5%) and non-existence of such platform 74 (25.4%). This analysis shows that more of few firms in manufacturing sector that establish knowledge sharing plans with their external accountants use Newsletters from External Accountants as a platform for such knowledge while for firms in non-manufacturing they use training arrangement as platform for such knowledge sharing.

Table 4.25 Platform for Knowledge Sharing Plans with the Service Providers.

Response	Manufacturing	Non-Manufacturing	Total
Training Arrangement	6 (5%)	113 (38.7%)	119 (29%)
Newsletters from External Accountants	13 (10.9%)	64 (21.9%)	77 (18.7%)
Dailies and Periodicals	7 (5.9%)	22 (7.5%)	29 (7%)
References to Pronouncement from government and professional bodies	4 (3.4%)	19 (6.5%)	23 (5.6%)
Non Applicable	89 (74.8%)	74 (25.4%)	163 (39.7%)
Total	119 (100%)	292 (100%)	411 (100%)

A high degree of relatedness between a firm and its exchange partners implies that they share common goals and are able to transfer knowledge between them more effectively (Holcomb & Hitt, 2006). Despite the importance of goal congruity for success in exchange relationships (Luo, 2002), evidence suggests a lack of goal congruity in many such relationships. As profit-maximizing goals are aligned, strategic outsourcing not only reduces monitoring and enforcement costs associated with the arrangement but also increases synergies as well. When goals are aligned, specialized firms are more likely to share common interests with a clients and thus be more supportive of exploiting new opportunities, even if such opportunities require these firms make additional investments. These synergies enable firms with common goals to more quickly exploit competitive imperfections observed in the market (Mahoney & Pandian, 1992),

4.3 Inferential Statistics

4.3.1 Data Diagnostic Tests

Once initial descriptive analysis was completed, data purification was performed using both the Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). EFA was carried out using Statistical Package for Social Sciences (SPSS22) and aimed at refining the variables into the most effective number of factors by selecting the variable with high correlations among themselves but low correlations with all other variables (Babin & Svensson, 2012). Also, Structural Equation Modelling (SEM) through Confirmatory Factor Analysis (CFA) was used to validate the Measurement Scales for: Construct Reliability, Discriminant Validity and Unidimensionality of variables. All these tests on the variables are reviewed herein below:

4.3.1.1 Reliability Test

The reliability of the individual items was assessed by inspecting the internal consistency values and the loading of the items on their corresponding constructs. The data was subjected to reliability tests to check on consistency of the measurement sets (Fornell & Larcker, 1981). Reliability tests cited by researchers under the relevant empirical studies were adopted alongside the application of the most common measure of internal consistency known as Cronbachs Alpha (Cronbach, 1979). To test the internal consistency of the items using Cronbachs Alpha for Sekaran, (2006) a reliability coefficient of 0.7 is acceptable, while Velicer and Fava (1998) recommend magnitudes of between 0.40 and 0.70. This measure of reliability indicates the extent to which a set of items can be treated as measuring a single latent variable. The recommended value of Cronbach alpha is 0.7 and above was used as cut off point so as to ensure the internal consistency of values. Composite reliability was also assessed to establish whether the specific indicators in the measurement model were sufficient to represent the respective constructs.

Composite reliability threshold is 0.7 and above (Nunnally, 1978) with 0.7 suggested as a reference for modest reliability applicable and over 0.8 as an indication of high reliability.

Construct reliability was assessed by computing the composite reliability and the cronbach alpha of the constructs. Composite reliability measures were evaluated by using SmartPLS. The Cronbach alphas were all above the 0.6 threshold as specified for PLS analysis (Hair et al., 2006) and ranged from 0.727 and 0.993 which indicates good to excellent reliability and composite reliability of reflective items were all above the acceptable 0.7 threshold which means all the variables in the study exhibited construct reliability. All constructs were viewed to have acceptable reliability levels because the composite reliability scores for all constructs were above the 0.7 threshold. Details of construct reliability are presented in Table 4.26.

Table 4.26 Reliability of Constructs

	Composite Reliability ≥ 0.7	Cronbachs Alpha ≥ 0.6
Asset Specificity [AS]	0.987	0.983
Uncertainties Surround Accounting [U]	0.922	0.908
Frequency of Accounting Functions [FAF]	0.920	0.892
Capabilities Complementarity [CC]	0.855	0.727
Strategic Relatedness [SR]	0.806	0.764
Financial Performance [FP]	0.994	0.993

4.3.1.2 Factor Analysis

Exploratory Factor Analysis (EFA) using principal component analysis with promax rotation revealed that all the factor loadings were above the acceptable threshold of 0.5 (Hair *et al.*, 2006). Item to total correlations of above 0.3 was achieved for all items in the scale. The individual subscale of each Construct had Factor Loadings of between 0.531 and 0.963 and achieved item to total correlations of between 0.375 and 0.954.

Furthermore, Kaiser-Meyer-Olkin (KMO) which measures sampling adequacy and Bartlett test of Sphericity which assess the factorability of data or suitability of data for structure detection were performed to assess the appropriateness of using factor analysis and to test whether the relationship among the variables has been significant or not (Pallant, 2010). The KMO test obtained for each construct was considered high when compared with the threshold of 0.7 which ranged between 0.712 and 0.893. Also, the Bartlett test of sphericity value from the data showed statistical significance for all the Constructs implying there were sufficient relationships among the variables to investigate. Bartlett's Test Sphericity value is significant if $p \leq 0.05$ (Pallant, 2010). Bartlett's test value was deemed significant since the p-value was 0.000 ($p = 0.000$). The above discussed details on Factor Analysis for all the Construct are presented in Table 4.27.

Table 4.27 Factor Analysis of the Construct

S/N	ITEM	Factor Loading ≥0.5	Corrected Item-Total Correlation ≥0.3	Kaiser-Meyer-Olkin (KMO) ≥0.5	Bartlett's Test		
					Chi--Sq	df	p-value
Assets Specificity				0.893	5379.461	21	0.000
AS 1	Existence of Accounting Department in your organisation	.954	.931				
AS 2	Highest qualification of the most senior officer in the Accounting Department	.962	.951				
AS 3	Approximate range of the organisations investment in physical assets employed for accounting functions	.963	.954				
AS 4	Approximate range of the organisations investment in human assets employed for accounting functions	.939	.924				
AS 5	For a new staff to adjust or cope with the dynamics of the accounting department	.957	.943				
AS 6	Uniqueness of skills and knowledge of the accounting staff compared to skills and knowledge of employees of other companies who work on similar activities	.963	.944				
AS 7	To what extent does your accounting departments action impact on work carried out in other subunits of your firm?	.958	.939				
Uncertainties				0.845	3239.783	21	0.000
USAF 2	The level of Nigerian business environmental uncertainty, in terms of changing rules and regulations, on General Ledger Processing	.917	.892				

USAF 3	The level of Nigerian business environmental uncertainty, in terms of changing rules and regulations, on Account Payable/Account Receivable	.792	.598			
USAF 4	The level of Nigerian business environmental uncertainty, in terms of changing rules and regulations, on Payroll Accounting	.587	.580			
USAF 5	The level of Nigerian business environmental uncertainty, in terms of changing rules and regulations, on Fixed Assets Accounting	.880	.882			
USAF 6	The level of Nigerian business environmental uncertainty, in terms of changing rules and regulations, on Inventory Accounting	.900	.901			
USAF 7	The level of Nigerian business environmental uncertainty, in terms of changing rules and regulations, on Budgeting	.876	.869			
USAF 8	The level of Nigerian business environmental uncertainty, in terms of changing rules and regulations, on Management Accounting	.531	.328			
<hr/>						
Frequency				0.858	2209.044	10 0.000
FAF 12	Size (in Naira Value) of Fixed Asset Accounting for each batch processing	.613	.375			
FAF 13	Size (in Naira Value) of Inventory Accounting for each batch processing	.864	.869			
FAF 14	Size (in Naira Value) of Budgeting for each batch processing	.882	.888			
FAF 15	Size (in Naira Value) of Management Accounting for each batch processing	.914	.919			
FAF 16	Size (in Naira Value) of Taxation for each batch processing	.872	.842			
<hr/>						
Capability Complementarity				0.724	394.025	3 0.000

CC 2	The integration of internal and external capabilities enhance the financial performance gains of your organization in the previous years	.934	.657			
CC 3	Major areas of respondents organization where financial gain had been realized in the previous years as a result of support from Accounting Service Provider.	.897	.620			
CC 4	Specialized capabilities the respondents organizations obtained from the external accounting services provider that complimented the internal capabilities endowment in the previous years.	.580	.442			
<hr/>						
Strategic Relatedness				0.712	906.690	10 0.000
SR 2	Last time the respondents organisation discussed and agreed the organisations objective(s) for outsourcing accounting function with the external accountant	.833	.445			
SR 3	Respondents rating of accounting service provider in assisting their organizations achieving the objective(s) of engaging his service	.569	.656			
SR 4	Yardstick the respondents organisations have been using to monitor the external accountants support to the achievement of their organisations objective(s)	.620	.680			
SR 5	Did you ever ask your external Accountants for his objective of taking the outsourcing of accoounting functions from your organisation.?	.714	.359			
SR 7	Platform employed by the respondents accounting service provider in the knowledge sharing scheme with their organisations	.616	.542			

Extraction Method: Principal Component Analysis.

4.3.1.3 Normality (Unidimensionality) Test

Construct unidimensionality was initially assessed by verifying that the measurement items measured the specific construct. Following the purification and reliability analysis of the measurement scales, PLS analysis was conducted so as to ensure the suitability of every construct adopted for the study. Table 4.28 displays the mean and standard deviation with corresponding normality data statistics for all constructs in the outer model. The table 4.30 shows the Descriptive Statistics for Measurement Scales and Test of Univariate Normality. The normality of data is confirmed through the excess of Kurtosis over Skewness for each item of the construct which must be less or equal to +2 and greater or equal to -2. All the items used in this study met this criteria to depict the normalcy of the data used.

Table 4.28 Descriptive Statistics for Scales and Test of Univariate Normality

	Variable Number	Missing	Mean	Median	Min	Max	Standard deviation	Kurtosis	Skewness	Diff btw Kurt & Skewness = $\leq +2$ and ≥ -2
AS1	7	0	3.29	3	1	5	1.026	-0.863	-0.196	-0.667
AS2	8	0	3.577	4	1	5	1.072	-0.157	-0.759	0.602
AS3	9	0	3.71	4	1	5	1.132	0.241	-0.929	1.17
AS4	10	0	3.929	4	1	5	0.921	0.118	-0.983	1.101
AS5	12	0	3.946	4	1	5	1.134	0.34	-1.039	1.379
AS6	13	0	3.324	4	1	5	1.236	-1.099	-0.231	-0.868
AS7	11	0	3.2	4	1	5	1.236	-0.773	-0.687	-0.086
USAF2	15a	0	2.38	3	1	3	0.756	-0.866	-0.757	-0.109
USAF3	15b	0	2.397	2	1	3	0.632	-0.619	-0.562	-0.057
USAF4	15c	0	2.017	2	1	3	0.716	-1.049	-0.025	-1.024
USAF5	15d	0	2.363	3	1	3	0.791	-1.013	-0.741	-0.272
USAF6	15e	0	2.411	3	1	3	0.767	-0.787	-0.854	0.067
USAF7	15f	0	2.509	3	1	3	0.739	-0.246	-1.135	0.889
USAF8	15g	0	2.26	2	1	3	0.586	-0.503	-0.127	-0.376
FAF12	25d	0	2.423	3	1	5	0.97	-0.496	-0.321	-0.175
FAF13	25e	0	2.715	3	1	5	1.071	-0.717	-0.021	-0.696
FAF14	25f	0	2.012	2	1	4	0.911	-0.754	0.461	-1.215
FAF15	25g	0	2.701	2	1	5	1.11	-0.752	0.344	-1.096
FAF16	25h	0	2.521	2	1	4	0.82	-0.563	0.425	-0.988
CC2	27	0	2.039	2	1	5	0.991	-1.113	0.223	-1.336
CC3	28	0	2.01	2	1	5	0.979	-1.204	0.23	-1.434

CC4	29	0	3.538	4	1	5	1.404	-0.834	-0.602	-0.232
SR2	32	0	2.068	2	1	4	0.792	0.93	0.938	-0.008
SR3	33	0	2.47	2	1	5	0.866	0.64	1.052	-0.412
SR4	34	0	2.888	3	1	5	0.97	-0.595	0.611	-1.206
SR5	35	0	2.567	3	1	5	0.884	0.45	-0.374	0.824
SR7	37	0	2.978	3	1	5	0.897	0.553	-0.525	1.078
ROCE_2008	Sd	0	4.197	4.16	2.78	5.2	0.802	-0.972	-0.333	-0.639
ROCE_2009	Sd	0	4.425	4.69	2.96	5.6	0.88	-1.09	-0.152	-0.938
ROCE_2010	Sd	0	4.625	4.92	2.98	5.92	0.98	-0.939	-0.256	-0.683
ROCE_2011	Sd	0	4.688	4.45	3.02	6.03	0.981	-0.923	-0.122	-0.801
ROCE_2012	Sd	0	5.086	4.8	3.12	6.79	1.23	-1.076	-0.055	-1.021
OAF_M	Cd	0	0.578	0.625	0	1	0.317	-0.656	-0.778	0.122
IND_OAF	Cd	0	3.65	3.5	0.5	6.312	1.561	-1.235	-0.004	-1.231

4.3.1.4 Validity Test

Convergent Validity

Confirmatory Factor Analysis (CFA) was conducted to assess the convergent validity of the constructs. Convergent validity was assessed using the value of standard loadings of the indicators for the underlying construct. The scores are to be statistically significant and above 0.5 (Nunnally, 1978). The CFA results of item loadings and their respective t-values are reported in Table 4.29. The items were significantly loaded on the proposed factors with loading higher than 0.5.

Convergent validity was also assessed using Average Variance Extracted (AVE) from each Construct. The AVE of all constructs were above the 0.5 threshold indicating that the latent constructs account for at least fifty percent of the variance in the items. This indicates that the measurement scales exhibited adequate measurement validity (Hair *et al.*, 2006).

Table 4.29 Convergent Validity of outer model

Outer Model	Sample Estimate	Sample Mean (M)	Std Error (Se)	t- Statistics	p-values	Average Variance Extracted (AVE)
Asset Specificity						0.915
AS1	0.954	0.954	0.003	285.819	0.000	
AS2	0.962	0.962	0.003	286.595	0.000	
AS3	0.963	0.963	0.003	344.528	0.000	
AS4	0.939	0.939	0.006	163.058	0.000	
AS5	0.957	0.957	0.003	317.327	0.000	
AS6	0.963	0.963	0.003	308.059	0.000	
AS7	0.958	0.958	0.003	332.181	0.000	
Uncertainties						0.635
USAF2	0.917	0.915	0.011	82.998	0.000	
USAF3	0.792	0.792	0.018	42.92	0.000	
USAF4	0.587	0.582	0.05	11.763	0.000	
USAF5	0.88	0.877	0.021	42.801	0.000	
USAF6	0.9	0.898	0.016	55.395	0.000	
USAF7	0.876	0.873	0.018	47.59	0.000	
USAF8	0.531	0.527	0.062	8.562	0.000	
Frequency						0.699
FAF12	0.613	0.615	0.028	22.205	0.000	
FAF13	0.864	0.861	0.023	37.138	0.000	
FAF14	0.882	0.879	0.019	45.615	0.000	
FAF15	0.914	0.912	0.017	54.688	0.000	
FAF16	0.872	0.869	0.016	54.409	0.000	
Capability Complimentarity						0.671
CC2	0.934	0.934	0.008	122.243	0.000	
CC3	0.897	0.897	0.016	55.255	0.000	
CC4	0.58	0.579	0.054	10.748	0.000	
Strategic Relatedness						0.558
SR2	0.833	0.834	0.02	40.796	0.000	
SR3	0.569	0.558	0.082	6.908	0.000	
SR4	0.62	0.611	0.074	8.378	0.000	
SR5	0.714	0.714	0.03	23.954	0.000	
SR7	0.616	0.607	0.057	10.857	0.000	
Financial Performance						0.971
ROCE_2008	0.99	0.99	0.001	1,085.78	0.000	
ROCE_2009	0.992	0.992	0.001	1,026.37	0.000	
ROCE_2010	0.98	0.98	0.003	341.133	0.000	

ROCE_2011	0.991	0.991	0.001	694.362	0.000
ROCE_2012	0.974	0.974	0.003	379.991	0.000

Discriminant validity

A number of measures were used to assess the discriminant validity of the outer model. These were coefficient of determination (R^2) for the endogenous variable, the Fornell Lacker Measure and the Stone-Geisser Test (Q^2). The R^2 value financial performance (FP) was: 0.735. The Fornell Larker measure compares the AVE to the highest squared correlation of each construct (Fornell & Bookstein, 1982). As indicated in Table 4.30, all the constructs in the model met this criteria indicating that discriminant validity is supported. The Stone-Geisser Test (represented with Q^2) is the Construct Cross-Validated Communality measure for each construct. This measure was produced through a blindfolding procedure in SmartPLS and is required to be equal to or greater than 0. A Q^2 of 1 is considered to mean a perfect prediction of model scores while a 0 is considered to a weak measure. All the measures were above 0 and indicated a fair to strong prediction of the model. The discriminant measures are presented in Table 4.33 below. Discriminant validity was confirmed for the measurement model. As indicated in Table 4.33, the square root of the average variance extracted is higher than all its correlation with other constructs within the model.

Table 4.30 Measures of Discriminant Validity

Construct	$R^2 \geq 0.17$	Fornell Larker Measure ($AVE \geq$ highest correlation ²)	Stone-Geisser Test ($Q^2 \geq 0$)
ASset Specificity [AS]	-	0.915>0.135	0.884
Uncertainties Surround Accounting [USAF]	-	0.635>0.376	0.523
Frequency of Accounting Functions [FAF]	-	0.699>0.135	0.528
Capabilities Complimentarity [CC]	-	0.671>0.376	0.406
Strategic Relatedness [SR]	-	0.558>0.133	0.203
Financial Performance [FP]	0.735	0.971>0.362	0.952

Table 4.31 Fornell-Lackers Correlation matrix of constructs

	AS	CC	FAF	FP	SR	U
AS	1.000					
CC	-0.530	1.000				
FAF	0.368	-0.425	1.000			
FP	-0.550	0.613	-0.488	1.000		
SR	0.365	-0.379	0.189	-0.673	1.000	
U	-0.206	0.411	-0.344	0.602	-0.369	1.000

4.3.1.5 Autocorrelation Test for Financial Performance (Test for dependence)

Chatfield (2004) noted that Autocorrelations is the correlation of a time series with its own past and future values. Autocorrelation is sometimes called lagged correlation or serial correlation, which refers to the correlation between members of a series of numbers arranged in time. Positive autocorrelation might be considered a specific form of *persistence*, a tendency for a system to remain in the same state from one observation to the next. The study determined whether there was autocorrelation through calculation of Durbin – Watson statistic. The value of the Durbin-Watson statistic ranges from 0 to 4. As a general rule of thumb, the residuals are uncorrelated is the Durbin-Watson statistic is approximately 2. A value close to 0 indicates strong positive correlation, while a value close 4 indicates strong negative correlation. The statistic has to lie between 1.5 and 2.5 to show that there is no autocorrelation (Cameron, 2005; Curwin & Slater, 2008; Garson, 2012). The hypothesis test was conducted whether there was evidence of autocorrelation given by H_0 and H_1 , set $\alpha = 0.05$, the rule was to reject H_0 , if p – value was less than α else fail to reject H_0 : (Garson, 2012).

Where:

H_0 : There was no evidence of autocorrelation

H_1 : There was evidence of autocorrelation

The results of the test are shown in table 4.32, which indicate a Durbin –Watson coefficient (DWC) of 1.8379 with a p-value of 0.1845 in lag 1, DWC of 1.7293

with a p-value of 0.1561 in lag 2 , while in lag 3 , DWC 1.8094 and the p-value is 0.1246. Since Durbin –Watson coefficients were between 1.5 and 2.5 and p-value higher than 0.05 for lags 1-3, the study accepted the null hypothesis that there was no autocorrelation in the data residual. The study therefore concluded that there was no autocorrelation of the audit expectation gap. Thus, linear regression model was appropriate for this study. Ogundipe, Idowu and Ogundipe (2012) used Durbin – Watson test to determine whether there was autocorrelation in their data residuals. Since their calculated Durbin – Watson coefficient was between 1.5 and 2.5; they concluded that there was no autocorrelation in the data residuals.

Table 4.32: Durbin Watson test for Financial Performance

Lag	D.W. Statistic	p-value
1	1.8379	0.1845
2	1.7293	0.1561
3	1.8094	0.1246

4.3.1.6 Multicollinearity Test

The standard issue in multicollinearity is that, the standard errors and thus the variances of the estimated coefficients are inflated when multicollinearity exists (Simon, 2004). Test for multicollinearity among study variables was conducted using Tolerance and Variance Inflation Factor (VIF). Variance Inflation Factor was checked for evidence of multicollinearity where their numerical values were all well below the cut-off value of 10 suggested by Neter, Kutner, Wasserman and Nachtsheim (1996). Porter and Gujarat (2010), view that as a rule of the thumb if VIF of independent variables exceeds 10, that variable is collinear. Based on this rule of the thumb, there was no collinearity among the independent variables.

From the results, inspection of the Variance Inflation Factors (VIFs) showed that multicollinearity was not a concern. No variable was observed to have VIF value above 10 and no tolerance statistic was below 0.100 as suggested by Hamilton

(2006). This hence led to a conclusion that no predictor had a strong linear relationship with any of the predictor(s).

Table 4.33 Multicollinearity Test for the Study Variables

Variables	VIF	Tolerance
Asset Specificity [AS]	1.522	0.611
Uncertainties Surround Accounting [U]	1.145	0.724
Frequency of Accounting Functions [FAF]	1.323	0.911
Capabilities Complementarity [CC]	1.141	0.896
Strategic Relatedness [SR]	1.055	0.758
Mean VIF	1.2372	0.78

4.3.2 Correlation Analysis

Correlation shows the relationship existing between variables. The study's dependent variable is financial performance and the independent variables consist of accounting outsource drivers such as: assets specificity employed for accounting functions, uncertainties surrounding accounting functions, frequency of accounting transactions, capability complementarity received from exchange partners and strategic relatedness created with the exchange partners. The results in table 4.34 indicate that there is a strong negative correlation of -0.704 between accounting outsource driver called assets specificity employed for accounting functions and financial performance of SMEs in Nigeria. The p value is actual 0.000 implying that the relationship is significant. This means that accounting functions outsourced based on assets specificity is a strong determinant of the financial performance of SMEs in Nigeria.

The results in table 4.34 also indicate that there is a positive correlation of 0.82 between accounting outsource driver called uncertainties surrounding accounting functions and financial performance of SMEs in Nigeria. The p value is actual 0.000 implying that the relationship is significant. This means that accounting functions outsourced based on uncertainties is a determinant of the financial performance of SMEs in Nigeria. The table 4.34 also shows that there is a negative correlation of

.626 between accounting outsource driver called frequency of accounting transactions and financial performance of SMEs in Nigeria. The p value is actual 0.000 implying that the relationship is significant. It is also evident that there is a positive correlation of 0.668 between accounting outsource driver called capability complementarity received from exchange partners and financial performance of SMEs in Nigeria and its p-value is 0.000 implying that the relationship is significant. The results further indicate that there is a negative correlation of 0.61 between accounting outsource driver called strategic relatedness created with the exchange partners and financial performance of SMEs in Nigeria. The p value is actual 0.000 implying that the relationship is significant.

Table 4.34 Pearson Correlations

		AS_M1	U_M1	FAF_M1	CC_M1	SR_M1	ROCE_M1
AS_M1	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	411					
U_M1	Pearson Correlation	-.140**	1				
	Sig. (2-tailed)	.005					
	N	411	411				
FAF_M1	Pearson Correlation	.316**	-.274**	1			
	Sig. (2-tailed)	.000	.000				
	N	411	411	411			
CC_M1	Pearson Correlation	-.272**	.233**	-.286**	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	411	411	411	411		
SR_M1	Pearson Correlation	.247**	-.296**	.045	-.104*	1	
	Sig. (2-tailed)	.000	.000	.031	.035		
	N	411	411	411	411	411	
ROCE_M1	Pearson Correlation	-.704**	.82**	-.626**	.668**	-.61**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	411	411	411	411	411	411

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

4.3.3 Regression Analysis

4.3.3.1 Linear Regression Model of Financial Performance and Assets Specificity employed for Accounting Functions

The linear regression analysis models the relationship between the dependent variable which is financial performance and independent variable which is accounting outsource driver called assets specificity employed for accounting functions. The coefficient of determination (R^2) and correlation coefficient (R) shows the degree of association between these two variables among SMEs in Nigeria. The results of the linear regression in table 4.35 indicate that $R^2 = 0.496$ and $R = 0.704$. R value gives an indication that there is a strong negative linear outsourcing relationship between assets specificity employed for accounting functions and the financial performance of SMEs in Nigeria. The R^2 indicates that explanatory power of the independent variables is 0.496. This means that about 49.6% of the variation in financial performance is explained by the model $FP = \beta_0 + \beta_1 (AS) + \varepsilon$ and 50.4% is unexplained by the model. Adjusted R^2 is a modified version of R^2 that has been adjusted for the number of predictors in the model by less than chance. The adjusted R^2 of 0.494 which is slightly lower than the R^2 value is a precise indicator of the outsourcing relationship between the independent and the dependent variable because it is sensitive to the addition of irrelevant variables. The adjusted R^2 indicates that 49.4% of the changes in the financial performance is explained by the model and 50.6% is not explained by the model $FP = \beta_0 + \beta_1 (AS) + \varepsilon$. This means that accounting functions outsourced based on assets specificity asset specificity has a strong influence on the financial performance of SMEs in Nigeria. These results are consistent with the study by Everaert *et al.*, (2010) that found there is a significant association between accounting functions outsourced based on asset specificity and the financial performance of the organisation. The proposition here is that for financial gains, when asset specificity of the accounting functions increases, firms are expected to internalise those functions for a good performance in terms of asset utilization (Speklé *et al.*, 2007). Conversely, low asset specificity of accounting

functions would motivate firms to outsource accounting functions (Widener and Selto, 1999).

Table 4.35 Model of Financial Performance and Asset Specificity

Model	R	R Square	Adjusted R Square
1	.704 ^a	.496	.494

a. Predictors: (Constant), Asset Specificity employed

Table 4.36 shows the results of ANOVA test which reveal that asset specificity employed for accounting functions has significant influence on financial performance of SMEs in Nigeria since the P value is actual 0.000 which is less than 5% level of significance. This is depicted by linear regression model $FP = \beta_0 + \beta_1 (AS) + \epsilon$ where FP is financial performance and AS is Asset Specificity. The P value was 0.000 implying that the model was significant. The study therefore rejected the first null hypothesis:

Ho: There is no significant outsourcing relationship between assets specificity employed for accounting functions and the financial performance of SMEs in Nigeria.

Table 4.36 ANOVA of Financial Performance and Asset Specificity

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	187.609	1	187.609	401.890	.000 ^b
	Residual	190.928	409	.467		
	Total	378.537	410			

a. Dependent Variable: Return on Capital Employed

b. Predictors: (Constant), Asset Specificity

The table 4.37 indicates there was negative gradient which revealed that when asset specificity employed for accounting functions increases, an increase in accounting outsourcing leads to a decrease in financial performance of the organisation. Based on this arguments, accounting outsource will be financially beneficial when the organisations investments in assets for executing the accounting functions are not specific or have low specificity (e.g., low firm-specific routines, knowledge,

language and skills) (Everaert *et al.*, 2010; Espino-Rodríguez, *et al.*, 2008). In line with Nicholson *et al.* (2006), it is expected that, as accounting functions become more customised to a firm and more specialised, asset specificity rises and, accordingly, shifting accounting activities to a professional (external) accountant can be difficult and costly thus negatively affecting the financial position of the organisation. Therefore, the model can provide the information needed to predict financial performance from asset specificity employed for accounting functions. The regression equation is presented as follows: $FP = 6.353 - 0.718(AS) + \epsilon$; Where FP = Financial Performance, AS= Asset Specificity employed for accounting functions and ϵ is the error term.

Table 4.37 Model of coefficients

Model		Unstandardized Coefficients		Standardized	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.353	.140		45.376	.000
	AS_M1	-.718	.020	-.704	-35.595	.000

a. Dependent Variable: Return on Capital Employed

4.3.3.2 Linear Regression Model of Financial Performance and Uncertainties Surrounding Accounting Functions

The linear regression analysis models the relationship between the dependent variable which is financial performance and independent variable which is accounting functions outsourced based on uncertainties. The coefficient of determination (R^2) and correlation coefficient (R) shows the degree of association between these two variables among SMEs in Nigeria. The results of the linear regression in table 4.38 indicate that $R^2 = 0.672$ and $R = 0.82$. R value gives an indication that there is a strong and positive linear outsourcing relationship between uncertainties surrounding the accounting functions and the financial performance of SMEs in Nigeria. The R^2 indicates that explanatory power of the independent variables is 0.672. This means that about 67.2% of the variation in financial performance is explained by the model $FP = \beta_0 + \beta_2 (U) + \epsilon$ and 32.8% is

unexplained by the model. Adjusted R^2 is a modified version of R^2 that has been adjusted for the number of predictors in the model by less than chance. The adjusted R^2 of 0.67 which is slightly lower than the R^2 value is a precise indicator of the relationship between the independent and the dependent variable because it is sensitive to the addition of irrelevant variables. The adjusted R^2 indicates that 67% of the changes in the financial performance is explained by the model and 33% is not explained by the model $FP = \beta_0 + \beta_2 (U) + \varepsilon$. This means that accounting functions outsourced based on Uncertainties has a strong influence on the financial performance of SMEs in Nigeria. These results are consistent with the study by Lamminmaki, 2009 that stated when uncertainties which surround accounting functions rise and, accordingly, shifting accounting activities to a professional (external) accountant can be beneficial to the organization in order to reduce the risk of not been able to do it right and thereby negatively affecting the financial performance of the organisation. However, Everaert *et al.*, 2010 maintain a different position when they said that if the firm cannot able to predict the workload related to accounting practices (e.g. low predictability and stability of the workload related to accounting functions), the costs of transaction will be increased as a consequence of renegotiating and changing of the contractual agreements with a professional accountant this will negatively affect the financial performance of the organization, meaning that the higher the uncertainties the lower the financial performance of the organization.

Table 4.38 Model of Financial Performance and Uncertainties

Model	R	R Square	Adjusted R Square
1	.82 ^a	.672	.670

a. Predictors: (Constant), Uncertainties Surrounding Accounting Functions

Table 4.39 shows the results of ANOVA test which reveal that accounting functions outsourced based Uncertainties has significant effect on financial performance of SMEs in Nigeria since the P value is actual 0.000 which is less than 5% level of significance. This is depicted by linear regression model $FP = \beta_0 + \beta_2 (U) + \varepsilon$ where

FP is financial performance and U is Uncertainties. The P value was 0.000 implying that the model was significant. The study therefore rejected the second null hypothesis:

Ho: There is no significant outsourcing relationship between uncertainties surrounding the accounting functions and the financial performance of SMEs in Nigeria.

Table 4.39 ANOVA of Financial Performance and Uncertainties

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	254.528	1	254.528	839.4737	.000 ^b
	Residual	124.009	409	.303		
	Total	378.537	410			

a. Dependent Variable: Return on Capital Employed

b. Predictors: (Constant), Uncertainties surrounding accounting functions

The Table 4.40 indicates there was positive gradient which reveals that in the event of an increase in uncertainties surrounding the accounting functions, an increase in accounting functions outsourced leads to increased financial performance of the organisation. This is because the organisations would be able to minimize the risk associating with the uncertainty by sharing it with the external professional accountants or experts thus positively affecting its financial performance. Therefore, the model can provide the information needed to predict financial performance from uncertainties surrounding accounting functions. The regression equation is presented as follows: $FP = 2.532 + 0.832(U) + \epsilon$; Where FP = Financial Performance, U= Uncertainties surrounding accounting functions and ϵ is the error term.

Table 4.40 Model of coefficients

Model		Unstandardized Coefficients		Standardized	T	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	2.532	.168		15.047	.000
	U_M1	.832	.015	.820	12.678	.000

a. Dependent Variable: Return on Capital Employed

4.4.3.3 Linear Regression Model of Financial Performance and Frequency of Accounting Transactions

The linear regression analysis models the relationship between the dependent variable which is financial performance and independent variable which is accounting functions outsourced based on frequency of transactions. The coefficient of determination (R^2) and correlation coefficient (R) shows the degree of association between these two variables among SMEs in Nigeria. The results of the linear regression in table 4.41 indicate that $R^2 = 0.392$ and $R = -0.626$. R value gives an indication that there is a strong and negative linear outsourcing relationship between frequency of accounting transactions and the financial performance of SMEs in Nigeria. The R^2 indicates that explanatory power of the independent variables is 0.392. This means that about 39.2% of the variation in financial performance is explained by the model $FP = \beta_0 + \beta_3 (FAF) + \varepsilon$ and 60.8% is unexplained by the model. Adjusted R^2 is a modified version of R^2 that has been adjusted for the number of predictors in the model by less than chance. The adjusted R^2 of 0.39 which is slightly lower than the R^2 value is a precise indicator of the relationship between the independent and the dependent variable because it is sensitive to the addition of irrelevant variables. The adjusted R^2 indicates that 39% of the changes in the financial performance is explained by the model and 61% is not explained by the model $FP = \beta_0 + \beta_3 (FAF) + \varepsilon$. This means that accounting functions outsourced based on frequency of transactions has a strong influence on the financial performance of SMEs in Nigeria. These results are consistent with the study by Reeves et al., 2010 that indicated that the higher the frequency of transactions, the more likely in-sourcing will be adopted as internalisation of transactions (insourcing of accounting activities) by the firm is only efficient for recurrent transactions (Aubert *et al.*, 1996).

Table 4.41 Model of Financial Performance and Frequency of Transactions

Model	R	R Square	Adjusted R Square
1	.626 ^a	.392	.390

a. Predictors: (Constant), Frequency of Accounting Functions

Table 4.42 shows the results of ANOVA test which reveal that accounting functions outsourced based on frequency of transactions has significant effect on financial performance of SMEs in Nigeria since the p-value is actual 0.000 which is less than 5% level of significance. This is depicted by linear regression model $FP = \beta_0 + \beta_3$ (FAF) + ϵ where FP is financial performance and FAF is accounting functions outsourced based on frequency of transactions. The P value was 0.000 implying that the model was significant. The study therefore rejected the third null hypothesis:

Ho: There is no significant outsourcing relationship between frequency of transactions and the financial performance of SMEs in Nigeria.

Table 4.42 ANOVA of Financial Performance and Frequency of Function

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	148.340	1	148.340	263.560	.000 ^b
	Residual	230.197	409	.563		
	Total	378.537	410			

a. Dependent Variable: Return on Capital Employed

b. Predictors: (Constant), Frequency of Accounting Functions

The table 4.43 indicates there was negative gradient which reveals that when there is an increase in the frequency of transactions, an increase in accounting functions outsourced leads to a decrease in financial performance of the organisation. An implication of earlier argument is that as frequency of accounting functions increases, SMEs prefer to develop such functions internally in order to enhance the firms financial performance by enjoying economies of large scale production (Speklé *et al.*, 2007; Nicholson *et al.*, 2006) and minimize the behavior deficiency of the external exchange partner such as delays and change of contractual rules. Therefore, the model can provide the information needed to predict financial performance from frequency of accounting transactions. The regression equation is presented as follows:

$FP = 2.532 - 0.642(\text{FAF}) + \epsilon$; Where FP = Financial Performance, FAF= Frequency of Accounting transaction and ϵ is the error term.

Table 4.43 Model of coefficients

Model		Unstandardized Coefficients		Standardized	T	Sig.
		B	Std. Error	Coefficients Beta		
1	(Constant)	5.809	.137		42.405	.000
	FAF_M1	-.642	.026	-.626	-25.157	.000

a. Dependent Variable: Return on Capital Employed

4.3.3.4 Linear Regression Model of Financial Performance and Capability Complementarity from exchange partners.

The linear regression analysis models the relationship between the dependent variable which is financial performance and independent variable which is accounting functions outsourced based on capability complementarity from exchange partners. The coefficient of determination (R^2) and correlation coefficient (R) shows the degree of association between these two variables among SMEs in Nigeria. The results of the linear regression in table 4.44 indicate that $R^2 = 0.446$ and $R = 0.668$. R value gives an indication that there is a strong and positive linear outsourcing relationship between capability complementarity received from exchange partners and the financial performance of SMEs in Nigeria. The R^2 indicates that explanatory power of the independent variables is 0.446. This means that about 44.6% of the variation in financial performance is explained by the model $FP = \beta_0 + \beta_4(CC) + \varepsilon$ and 55.4% is unexplained by the model. Adjusted R^2 is a modified version of R^2 that has been adjusted for the number of predictors in the model by less than chance. The adjusted R^2 of 0.444 which is slightly lower than the R^2 value is a precise indicator of the relationship between the independent and the dependent variable because it is sensitive to the addition of irrelevant variables. The adjusted R^2 indicates that 44.4% of the changes in the financial performance is explained by the model and 55.6% is not explained by the model $FP = \beta_0 + \beta_4(CC) + \varepsilon$. This means that capability complementarity has a strong influence on the financial performance of SMEs in Nigeria. These results are consistent with the study by Barney (1988) that suggested that acquiring firms gain above normal returns from acquisitions only when private or uniquely valuable synergies can be realized. Private and uniquely valuable

synergy is created when information about the combination is obscured from rivals and when no other combination of firms could produce the same value.

Table 4.44 Model of Financial Performance and Capability Complementarity

Model	R	R Square	Adjusted R Square
1	.668 ^a	.446	.444

a. Predictors: (Constant), Capability Complementarity

Table 4.45 shows the results of ANOVA test which reveal that accounting functions outsourced based on Capability Complementarity has significant effect on financial performance of SMEs in Nigeria since the P value is actual 0.000 which is less than 5% level of significance. This is depicted by linear regression model $FP = \beta_0 + \beta_4 (CC) + \varepsilon$ where FP is financial performance and CC is Capability Complementarity from exchange partner. The p-value was 0.000 implying that the model was significant. The study therefore rejected the forth null hypothesis:

Ho: There is no significant relationship between accounting functions outsourced based on capability complementarity and the financial performance of SMEs in Nigeria.

Table 4.45 ANOVA of Financial Performance and Capability Complementarity

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	168.912	1	168.912	329.566	.000 ^b
	Residual	209.625	409	.513		
	Total	378.537	410			

a. Dependent Variable: Return on Capital Employed

b. Predictors: (Constant), Capability Complementarity

The Table 4.46 indicates there was positive gradient which reveals that when there is an increase in the capability complementarity received from the exchange partners, accounting functions outsourced lead to an increase financial performance of the organization. Complementary resources can help a firm improve scale economies, enhance responsiveness and innovative potential, and increase quality. Furthermore, because complementary capabilities are generally relationship-specific (Dyer & Singh, 1998), the value created may be unavailable to rivals through alternative

sources (e.g. Barney, 1988), which may create a sustainable competitive advantage. Therefore, the model can provide the information needed to predict financial performance from the capability complementarity received from exchange partners. The regression equation is presented as follows:

$$FP = 5.217 + 0.718(CC) + \varepsilon$$
Where FP = Financial Performance, CC= Capability Complementarity and ε is the error term.

Table 4.46 Model of coefficients

Model		Unstandardized Coefficients		Standardized	T	Sig.
		B	Std. Error	Coefficients Beta		
1	(Constant)	5.217	.118		44.212	.000
	CC_M1	.718	.022	.668	32.039	.000

a. Dependent Variable: Return on Capital Employed

4.3.3.5 Linear Regression Model of Financial Performance and Strategic Relatedness with the exchange partners

The linear regression analysis models the relationship between the dependent variable which is financial performance and independent variable which is accounting functions outsourced based on strategic relatedness with the exchange partners. The coefficient of determination (R^2) and correlation coefficient (R) shows the degree of association between these two variables among SMEs in Nigeria. The results of the linear regression in table 4.47 indicate that $R^2 = 0.372$ and $R = -0.61$. R value gives an indication that there is a strong and negative linear relationship between accounting functions outsourced based on strategic relatedness with the accounting service provider and the financial performance of SMEs in Nigeria. The R^2 indicates that explanatory power of the independent variables is 0.372. This means that about 37.2% of the variation in financial performance is explained by the model $FP = \beta_0 + \beta_5 (SR) + \varepsilon$ and 62.8% is unexplained by the model. Adjusted R^2 is a modified version of R^2 that has been adjusted for the number of predictors in the model by less than chance. The adjusted R^2 of 0.37 which is slightly lower than the

R² value is a precise indicator of the relationship between the independent and the dependent variable because it is sensitive to the addition of irrelevant variables. The adjusted R² indicates that 37% of the changes in the financial performance is explained by the model and 63% is not explained by the model $FP = \beta_0 + \beta_5 (SR) + \varepsilon$. This means that strategic relatedness has an influence on the financial performance of SMEs in Nigeria. These results are consistent with the study by Prahalad and Bettis, 1986 where they found that strategic relatedness provides a rationale for capability-sharing between firms. This view of relatedness can be extended to include goal congruence and the commonality of knowledge-sharing routines. A high degree of relatedness between a firm and its exchange partners implies that they share common goals and are able to transfer knowledge between them more effectively (Holcomb & Hitt, 2006).

Table 4.47 Model of Financial Performance and Strategic Relatedness

Model	R	R Square	Adjusted R Square
1	.61 ^a	.372	.370

a. Predictors: (Constant), Strategic Relatedness

Table 4.48 shows the results of ANOVA test which reveal that outsourcing based on Strategic Relatedness has significant effect on financial performance of SMEs in Nigeria since the P value is actual 0.000 which is less than 5% level of significance. This is depicted by linear regression model $FP = \beta_0 + \beta_5 (SR) + \varepsilon$ where FP is financial performance and SR is accounting functions outsourced based on Strategic Relatedness with exchange partners. The P value was 0.000 implying that the model was significant. The study therefore rejected the forth null hypothesis:

Ho: There is no significant relationship between accounting functions outsourced based on strategic relatedness and the financial performance of SMEs in Nigeria.

Table 4.48 ANOVA of Financial Performance and Strategic Relatedness

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	140.854	1	140.854	242.378	.000 ^b
	Residual	237.683	409	.581		
	Total	378.537	410			

a. Dependent Variable: Return on Capital Employed

b. Predictors: (Constant), Strategic Relatedness

The table 4.49 indicates there was negative gradient which reveals that when there is an increase in strategic relatedness created with the exchange partners, an increase in accounting functions outsourced leads to decreased financial performance of the organisation. The research results found that outsourcing of accounting functions based on strategic relatedness with the exchange partners has a significant negative relationship with financial performance but this effect is in the opposite direction of the general belief. The existing understanding is that when strategic relatedness increases, an increase in accounting functions outsourced should lead to an increase in financial performance of the organization. This means that the normal relationship is positive gradient. However, this negative direction of the result on this strategic relatedness among SMEs in Nigeria and their exchange partners could be accounted for with the following argument. Despite the importance of goal congruity for success in exchange relationships (Luo, 2002), evidence suggests a lack of goal congruity and absence of knowledge sharing plans in many such relationships among SMEs and their exchange partners in Nigeria. Therefore this study suggests that in a relationship of outsourced accounting functions among SMEs in Nigeria, the parties are less committed to the long-term relationship as there exists an evidence treating the relationship as casual or one-off. Therefore, the model can provide the information needed to predict financial performance from strategic relatedness created with the exchange partners. The regression equation is presented as follows: $FP = 6.552 - 0.626(SR) + \varepsilon$; Where FP = Financial Performance, SR= Strategic Relatedness created with the exchange partners and ε is the error term.

Table 4.49 Model of coefficients

Model		Unstandardized Coefficients		Standardized	T	Sig.
		B	Std. Error	Coefficients Beta		
1	(Constant)	6.552	.174		37.740	.000
	SR_M1	-.626	.027	-.61	-23.308	.000

a. Dependent Variable: Return on Capital Employed

4.3.4 Structural Equation Modelling and Hypothesis Testing (Overall Model)

The structural or inner model was evaluated using the path weighting or β coefficients and corresponding p values generated from the SmartPLS analysis. Consistent with Chin (1998), bootstrapping (500 resamples) was applied to produce standard errors and t-statistics. This enabled the measurement of the statistical significance of the path coefficients. The degrees of freedom for all measures in the bootstrap analysis are equal to the number of resamples minus one, which is 499.

The statistical objective of PLS is to show high R^2 and significant t-values, thus rejecting the null hypothesis of no effect. Parameters with an absolute t-value greater than 1.65 indicate a significance level of 0.1 (i.e. $p < 0.1$), 1.96 indicate a significance level of 0.05 (i.e. $p < 0.05$), those with an absolute t-value over 2.58 present a significance level of 0.01 (i.e. $p < 0.01$), and those with an absolute t-value over 3.26 present a significance level of 0.001 (i.e. $p < 0.001$). The relevant β value (that is path coefficient value) and p coefficients (significant) are presented in Tables under each equation identified below supported with their respective structural model in diagrams.

The central research theme was to investigate the relationship between accounting outsource drivers and the financial performance of SMEs in Nigeria. In order to do justice to this work a conceptual framework and a set of hypotheses were developed. The proposed model integrated five constructs, and the financial performance

proxied by Return on Capital Employed (ROCE) was obtained for 5years (2008-2012) while firm age and size were taken as moderating variables. The essence of this study was to examine the interaction of all these variables and come forth with a virile predictive model beneficial to SMEs operators and the country at large on outsourcing of accounting functions and its effect on financial performance of business organisations.

In the light of the above, the entire evaluation of the interaction among these variables was looked at from three major perspectives in order to test and extract useful information from the various Hypotheses of this study. The first perspective was to ascertain joint interactions of individual construct with the dependent variable thus the following function and the operational equation:

Equation 1

$$FP = f(AS, U, FAF, CC \text{ and } SR)$$

$$FP = \beta_0 + \beta_1(AS) + \beta_2(U) + \beta_3(FAF) + \beta_4(CC) + \beta_5(SR) + \varepsilon$$

Where:

FP = Financial Performance (Dependent Variable)

$\beta_0 \dots \beta_5$ = Slope for each variable

AS = Asset Specificity for Accounting Functions

U = Uncertainties surrounding accounting functions

FAF = Frequency of Accounting Functions

CC = Capability Complementarity

SR = Strategic Relatedness

ε = Error term

The second perspective was to assess the moderating effect of firm size and firm age on the relationship between independent and the dependent variables hence, the following equations:

Equation 2

$$FP = \beta_0 + \beta_1(AS) \beta_6(FZ) + \beta_2(U) \beta_6(FZ) + \beta_3(FAF) \beta_6(FZ) + \beta_4(CC) \beta_6(FZ) + \beta_5(SR) \beta_6(FZ) + \varepsilon$$

Where:

FP = Financial Performance (Dependent Variable)

$\beta_0.. \beta_5$ = Slope for each variable

AS = Outsourced Accounting Functions based on Asset Specificity moderated by firm size

U = Outsourced Accounting Functions based Uncertainties moderated by firm size

FAF = Outsourced Accounting Functions based Frequency of Transactions moderated by firm size

CC = Outsourced Accounting Functions based Capability Complementarity moderated by firm size

SR = Outsourced Accounting Functions based Strategic Relatedness moderated by firm size

ε = Error term

Equation 3

$$FP = \beta_0 + \beta_1(AS) \beta_7(FG) + \beta_2(U) \beta_7(FG) + \beta_3(FAF) \beta_7(FG) + \beta_4(CC) \beta_7(FG) + \beta_5(SR) \beta_7(FG) + \varepsilon$$

Where:

FP = Financial Performance (Dependent Variable)

$\beta_0..... \beta_7$ = Slope for each variable

AS = Outsourced Accounting Functions based on Asset Specificity moderated by firm age

U = Outsourced Accounting Functions based Uncertainties moderated by firm age

FAF = Outsourced Accounting Functions based Frequency of Transactions moderated by firm age

CC = Outsourced Accounting Functions based Capability Complementarity moderated by firm age

SR = Outsourced Accounting Functions based Strategic Relatedness moderated by firm age

ε = Error term

4.3.4.1 Statistical Significance of (β) and t-Statistics for Equation 1

The path coefficients (β) were established using SmartPLS Algorithm of 500 maximum iteration for the general equation established for this study, $FP = \beta_0 + \beta_1(AS) + \beta_2(U) + \beta_3(FAF) + \beta_4(CC) + \beta_5(SR) + \mu$ below is the diagrammatic representation:

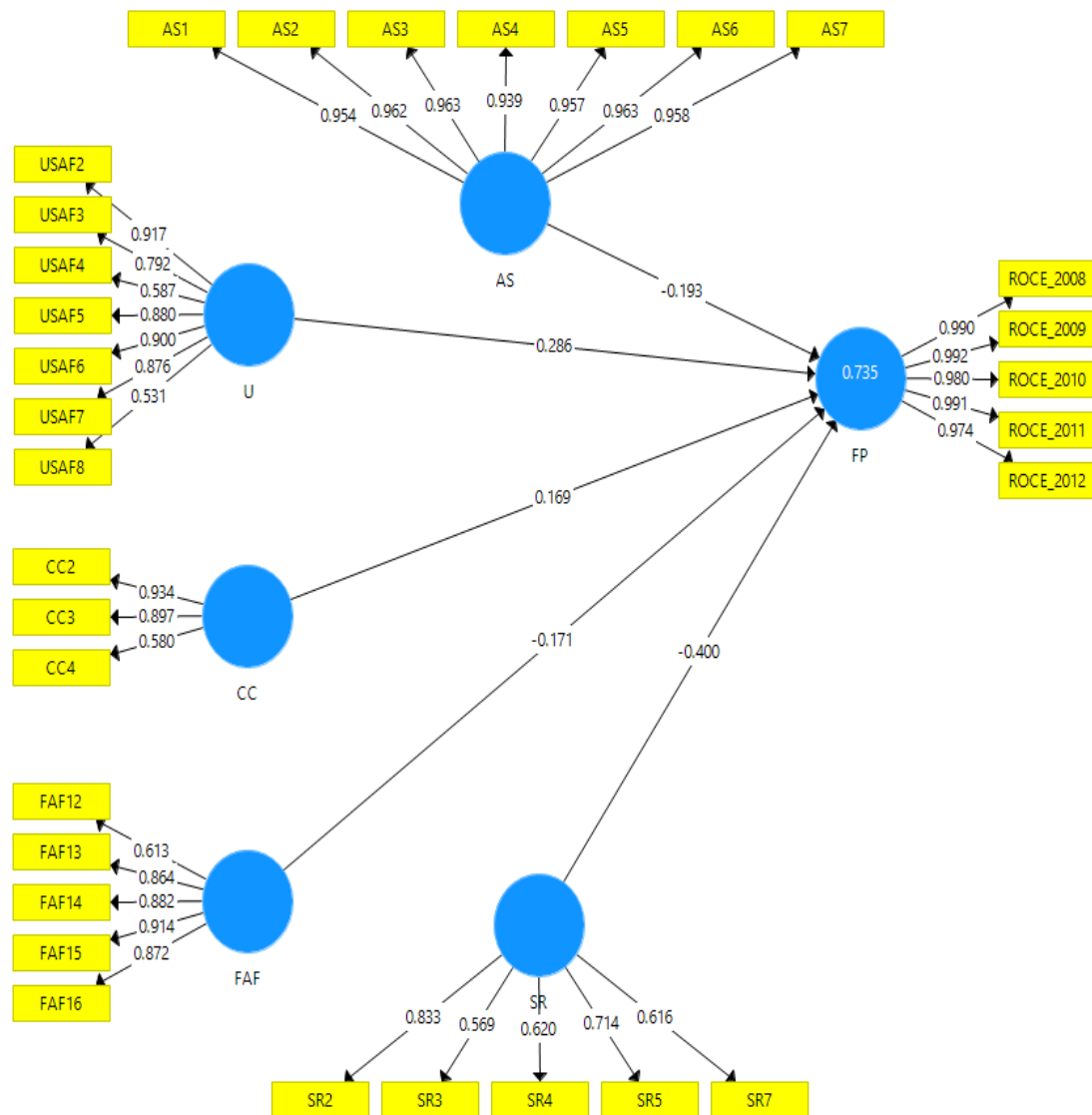


Figure 4.7: Measurement Model of the study

The figure 4.7 above shows the various items (indicators) which have successfully passed series of quality assurance tests like reliability and validity tests to justify their convergence to support their respective constructs towards establishing a realistic relationship with the dependent variable. All the items were ensured to load a minimum of 0.5. What each item was loaded was clearly shown. Also, each independent variable (construct) were linked directly to the Dependent Variable (FP). There were values obtained for every path between the constructs and the dependent variables and these are called path coefficient or beta (β). The corresponding t-values for each β were diagrammatically provided in figure 4.8 below using Bootstrapping facility of SmartPLS. Also, figure 4.7 shows the R-Squares for FP of 0.735 which stands for the coefficient of determination for the dependent variable.

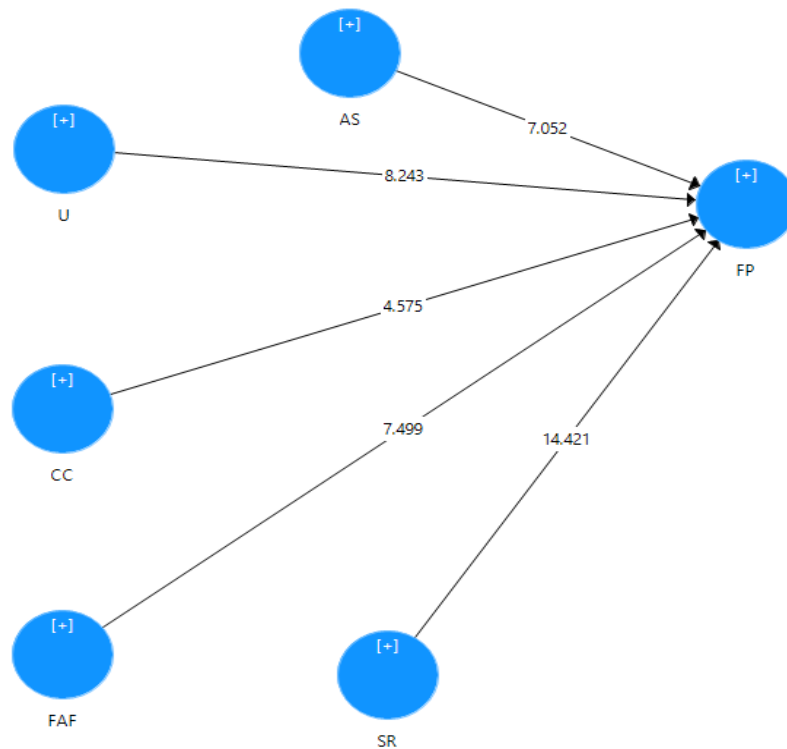


Figure 4.8: Structural Model T-Statistics using Bootstrapping of SmartPLS

Finally, Table 50 contains relevant figures which assisted to test some of the hypotheses of the study and the figures include: R-Squares, β , Standard Error (Se), t-values and Significance of Variables for General Equation of the study. The other relevant indices for the relationship between the independent and dependent variables are shown from the table: correlation coefficient (r), regression coefficient of determination (r^2) and adjusted r^2 are 0.8573, 0.735 and 0.731 respectively.

Table 4.50 β , t-Statistics and Significance of Variables for General model

	β	Se	T	p-value	Financial Performance (FP)		
					R	R-Square	Adj R-Square
AS -> FP	-0.193	0.027	-7.052	0.000	0.8573	0.735	0.731
U -> FP	0.286	0.035	8.243	0.000			
FAF -> FP	-0.171	0.023	-7.499	0.000			
CC -> FP	0.169	0.037	4.575	0.000			
SR -> FP	-0.4	0.028	-14.421	0.000			

4.3.4.1.1 Outsourcing Relationship between asset specificity employed accounting functions and the financial performance of SMEs in Nigeria.

The first objective of this research was to establish outsourcing relationship between asset specificity employed for accounting functions and the financial performance of SMEs in Nigeria. In order to ascertain this relationships of the construct under study, a number of indicators from existing literature were identified as uniqueness of the physical assets required for the functions, kind of specialized skills required from the manpower required for the job and the kind of inter-dependence between accounting department and other departments in the organization. The respondent organizations were requested to show the reasons why the organizations assets are so precious in the eyes of the organizations for utilization. The Hypothesis 1 of the study therefore was:

H₀: There is no significant outsourcing relationship between asset specificity employed for accounting functions and the financial performance of SMEs in Nigeria.

From the Table 4.50, accounting functions outsourced based on Asset Specificity, as depicted by the path AS → FP, was found to have a negative and statistically significant relationship with firm financial performance. The path coefficient was negative and significant at the 0.000 level ($\beta = -0.193$, $p < 0.05$). Therefore the null hypothesis (H₀) that there is no significant outsourcing relationship between asset specificity employed for accounting functions and the financial performance of SMEs in Nigeria is rejected.

4.3.4.1.2 Outsourcing Relationship between Uncertainties Surrounding the Accounting functions and the financial performance of SMEs in Nigeria.

The second objective of this research was to examine the outsourcing relationship between uncertainties surrounding accounting functions and the financial performance of SMEs in Nigeria. Accounting functions of every organization are surrounded by uncertainties which include: environmental, behavioural and technological that depict the unpredictability and instability of the workload involved in carrying out the accounting and other business processes. The respondent organisations were requested to show their perceptions about the present economic situation in the country and its effect on the execution of some typical accounting functions. Also, the respondents were asked to register their feelings about the attitudinal instability experienced over the years about their external exchange partners. Therefore Hypothesis 2 of the study was:

H₀: There is no significant outsourcing relationship between uncertainties surrounding accounting functions and the financial performance of SMEs in Nigeria.

From the Table 4.50, accounting functions outsourced based on uncertainties, as depicted by the path U -> FP, were found to have a positive and statistically significant relationship with firm financial performance. The path coefficient was positive and significant at the 0.000 level ($\beta = 0.286$, $p < 0.05$). Therefore the null hypothesis (Ho) that stated that there is no significant relationship between uncertainties surrounding accounting functions and the financial performance of SMEs in Nigeria is rejected.

4.3.4.1.3 Outsourcing Relationship between frequency of accounting transactions and the financial performance of SMEs in Nigeria.

The third objective of this research was to evaluate the outsource relationship between frequency of accounting functions and the financial performance of SMEs in Nigeria. Frequency of transaction is depicted by the effect periodicity and size of accounting functions on the intensity of their outsourcing (Evaraet *et. al*, 2010). The respondent organisations were requested to show the extent to which they thought a list of typical accounting functions happened within their organisations and the volume of such transaction at each batch processing cycle. Therefore Hypothesis 3 of the study was:

H₀: There is no significant outsourcing relationship between frequency of accounting transactions and the financial performance of SMEs in Nigeria.

From the Table 4.50 accounting functions outsourced based on frequency of transactions, as depicted by the path as depicted by the path FAF -> FP, was found to have a negative and statistically significant relationship with firm financial performance. The path coefficient was negative and significant at the 0.000 level ($\beta = -0.171$, $p < 0.05$). Therefore the null hypothesis (Ho) that stated that there is no

significant outsourcing relationship between frequency of accounting transactions and the financial performance of SMEs in Nigeria is rejected.

4.3.4.1.4 Outsourcing Relationship between Capability complementarity received from the exchange partners and the financial performance of SMEs in Nigeria.

The fourth objective of this research was to assess outsourcing relationship between capability complementarity received from exchange partners and the financial performance of SMEs in Nigeria. Capability Complementarity reflects a situation in which specialized capabilities sourced from outside enhance the value creation potential of a firm's own capability endowments (Luo, 2002a; Hitt *et al.*, 2001). The respondent organisations were asked, among other relevant questions, to show major ways the outputs of accounting functions outsourced in the previous years assisted their organisations in internal decision making process. Therefore Hypothesis 4 of the study was:

H₀: There is no significant outsourcing relationship between capability complementarity received from exchange partners and the financial performance of SMEs in Nigeria.

From the Table 4.50, accounting functions outsourced based on Capability Complementarity, as depicted by the path as depicted by the path CC → FP, was found to have a positive and statistically significant relationship with firm financial performance. The path coefficient was positive and significant at the 0.000 level ($\beta = 0.169$, $p < 0.05$). Therefore the null hypothesis (H₀) that stated that there is no significant outsourcing relationship between capability complementarity received from exchange partners and the financial performance of SMEs in Nigeria is rejected

4.3.4.1.5 Outsourcing Relationship between Strategic Relatedness created with exchange partners and the financial performance of SMEs in Nigeria.

The fifth objective of this research was to determine the outsourcing relationship between strategic relatedness created with the exchange partners and the financial performance of SMEs in Nigeria. Relatedness provides a rationale for capability-sharing between firms (Prahalad & Bettis, 1986; Tsai, 2000). This view of relatedness can be extended to include goal congruence and the commonality of knowledge-sharing routines. A high degree of relatedness between a firm and its exchange partners implies that they share common goals and are able to transfer knowledge between them more effectively (Holcomb & Hitt, 2006). The respondent organisations were asked, among other relevant questions, if they ever establish knowledge sharing plans with their exchange partners and to identify the yardstick they had been using to monitor the exchange partners support to the organizations objectives over the years. Therefore Hypothesis 5 of the study was:

H₀: There is no significant outsourcing relationship between strategic relatedness created with the exchange partners and the financial performance of SMEs in Nigeria.

From the Table 4.50, accounting functions outsourced based on Strategic relatedness, as depicted by the path as depicted by the path SR -> FP, was found to have a negative and statistically significant relationship with firm financial performance. The path coefficient was negative and significant at the 0.000 level ($\beta = -0.4$, $p < 0.05$). Therefore the null hypothesis (H₀) that stated that there is no significant relationship between accounting outsource based strategic relatedness with the exchange partners and the financial performance of SMEs in Nigeria is rejected.

4.3.4.2 Firm Size on the relationship between the Accounting Outsource Drivers and financial performance of SMEs in Nigeria (Equation 2)

Firm size is included as an explanatory factor because it affects the scale at which a firm can produce internally if it chooses not to outsource. Scale economies are widely held to influence firms outsourcing decisions, particularly for functions that have relatively high fixed costs. This suggests that smaller firms should outsource more to take advantage of the scale provided by specialized vendors (Ono and Stanko, 2005). Small firms would be expected to be more likely to outsource because it may not be optimal for them to carry out all steps in the production process because of the costs of maintaining specialized equipment or skills in-house (Abraham & Taylor, 1996).

SmartPLS was employed to explore the moderating effect of the firm size on the relationship between the constructs and the dependent variable. Figure 4.9 below shows the application of Firm size variable on each of the constructs in order to determine its moderating significance. The path coefficients were derived and the new R-Square of 0.743 was obtained as against 0.735 that was obtained for unmoderated model in figure 4.7 above. Figure 4.10 shows the adoption of Bootstrapping method of SmartPLS to obtain t-statistics and statistical significance of each path. Therefore, Table 4.51 contains the path coefficient (β), Standard Error (Se), t-test and p-value for each construct after the moderating effect of firm size.

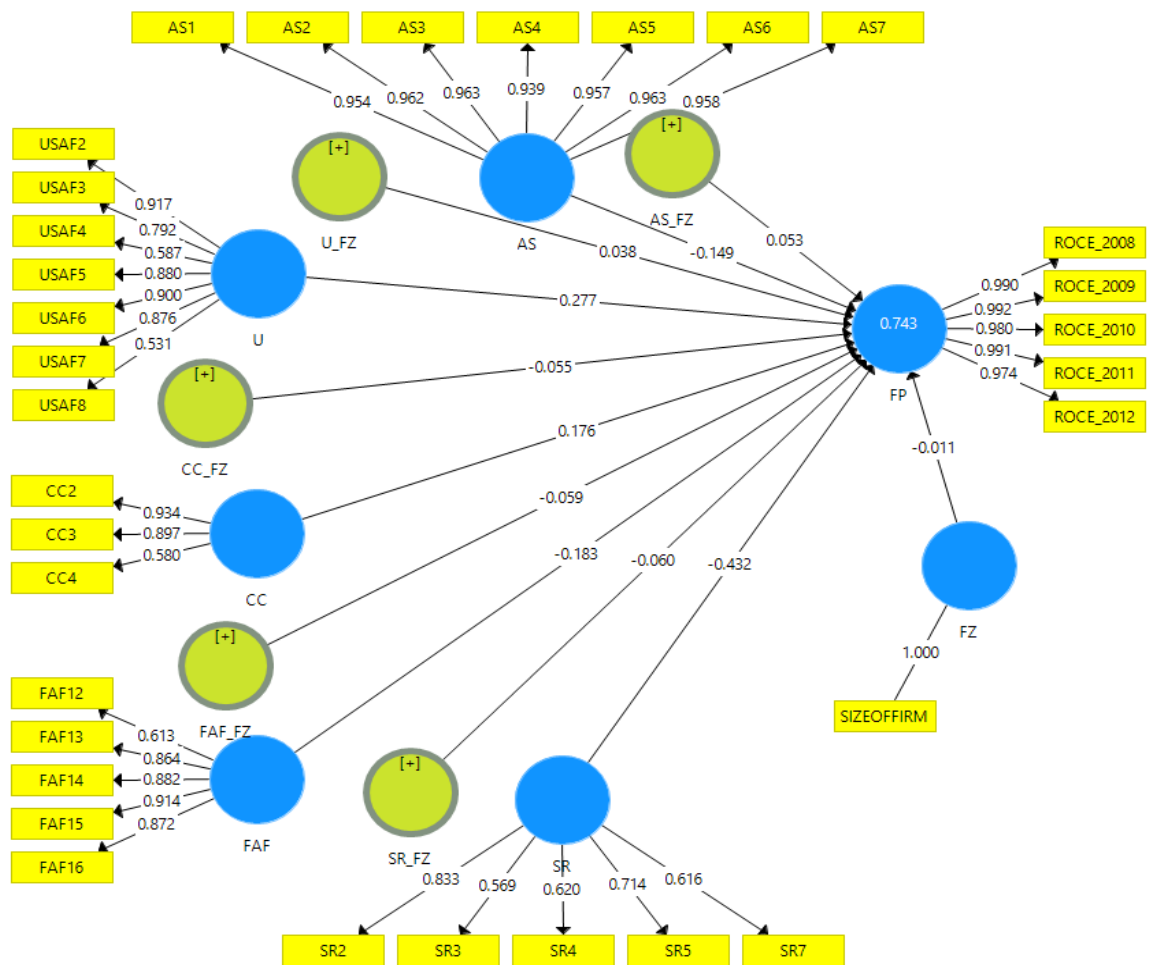


Figure 4.9: Moderating Effect of Firm Size on General Model.

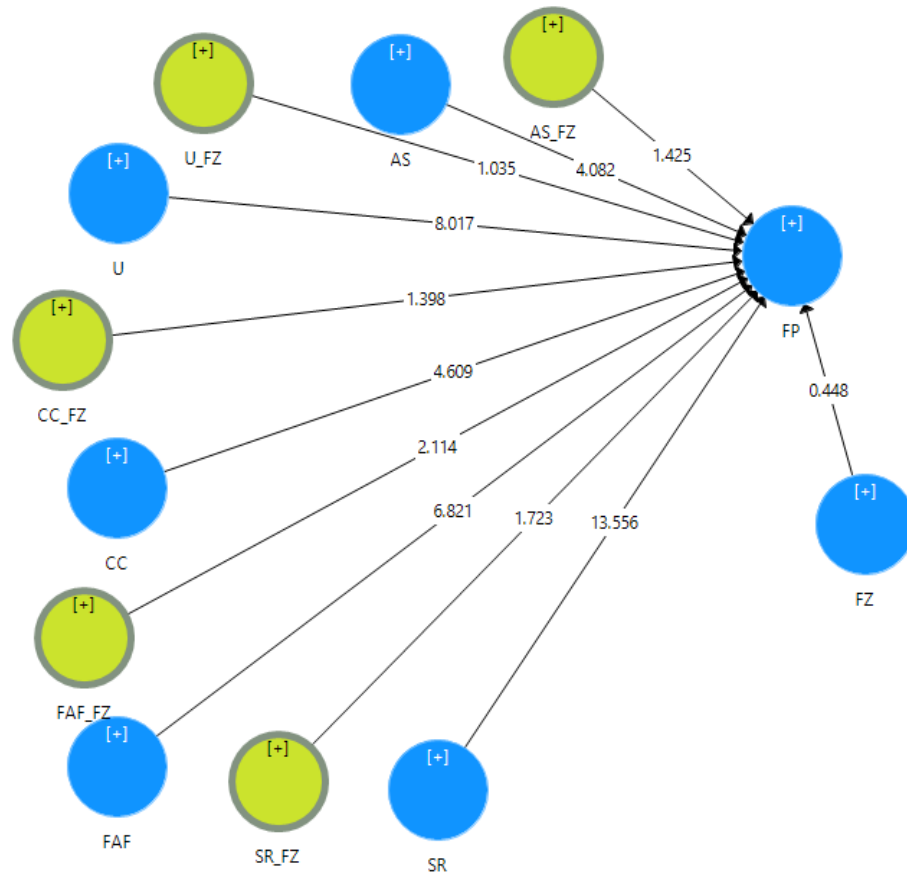


Figure 4.10: SmartPLS Bootstrapping for t-statistics

Table 4.51 β , t-Statistics & Significance: General Model moderated Firm Size

	β	Se	T	p-value	Financial Performance (FP)		
					R	R-Square	Adj R-Square
AS -> FP	-0.149	0.037	-4.082	0.000	0.862	0.743	0.735
U -> FP	0.277	0.035	8.017	0.000			
FAF -> FP	-0.183	0.027	-6.821	0.000			
CC -> FP	0.176	0.038	4.609	0.000			
SR -> FPn	-0.432	0.032	-13.556	0.000			
FZ -> FP	-0.011	0.025	-0.448	0.654			

Form the Table 4.51, it was clear that firm size has little or insignificant moderating effect on the relationship between outsourcing of accounting functions and financial

performance of SMEs in Nigeria. There was a slight increase of 0.008 in R^2 achieved after the moderation (that is, 0.743-0.735). A careful analysis of each path before and after moderation leaves the researchers with no new change as each path maintained its beta sign and p-value before and after moderating effect. In fact, the path FZ \rightarrow FP, which showed the general moderating effect of size of firm on the relationship between outsourcing of accounting functions and the financial performance of SMEs in Nigeria has path coefficient that was negative and insignificant at the 0.654 level ($\beta = -0.011$, $p > 0.05$). Therefore size of the firm has no moderating effect on the relationship between outsourcing of accounting functions and financial performance of SMEs in Nigeria.

4.3.4.3 Firm Age on Relationship between the Accounting Outsource Drivers and financial performance of SMEs in Nigeria (Equation 3)

Firm age was included as an explanatory factor for a firm's outsourcing decision because it clearly accounts for the experience degree of each firm in making relevant decision on where and how to outsource a business function. Therefore, a conjectural statement that age of the firm has no moderating effect on the relationship between outsourcing of accounting functions and financial performance of SMEs in Nigeria is worth reviewing.

SmartPLS was employed to explore the moderating effect of the firm age on the relationship between the constructs and the dependent variable. Figure 4.11 below shows the application of firm age variable on each of the constructs in order to determine its moderating significance. The path coefficients were derived and the new R-Square of 0.741 was obtained as against 0.735 that was obtained for unmoderated model in figure 4.1 above. Figure 4.12 shows the adoption of Bootstrapping method of SmartPLS to obtain t-statistics and statistical significance of each path. Therefore, Table 4.52 contains the path coefficient (β), Standard Error (Se), t-test and p-value for each construct after the moderating effect of firm age.

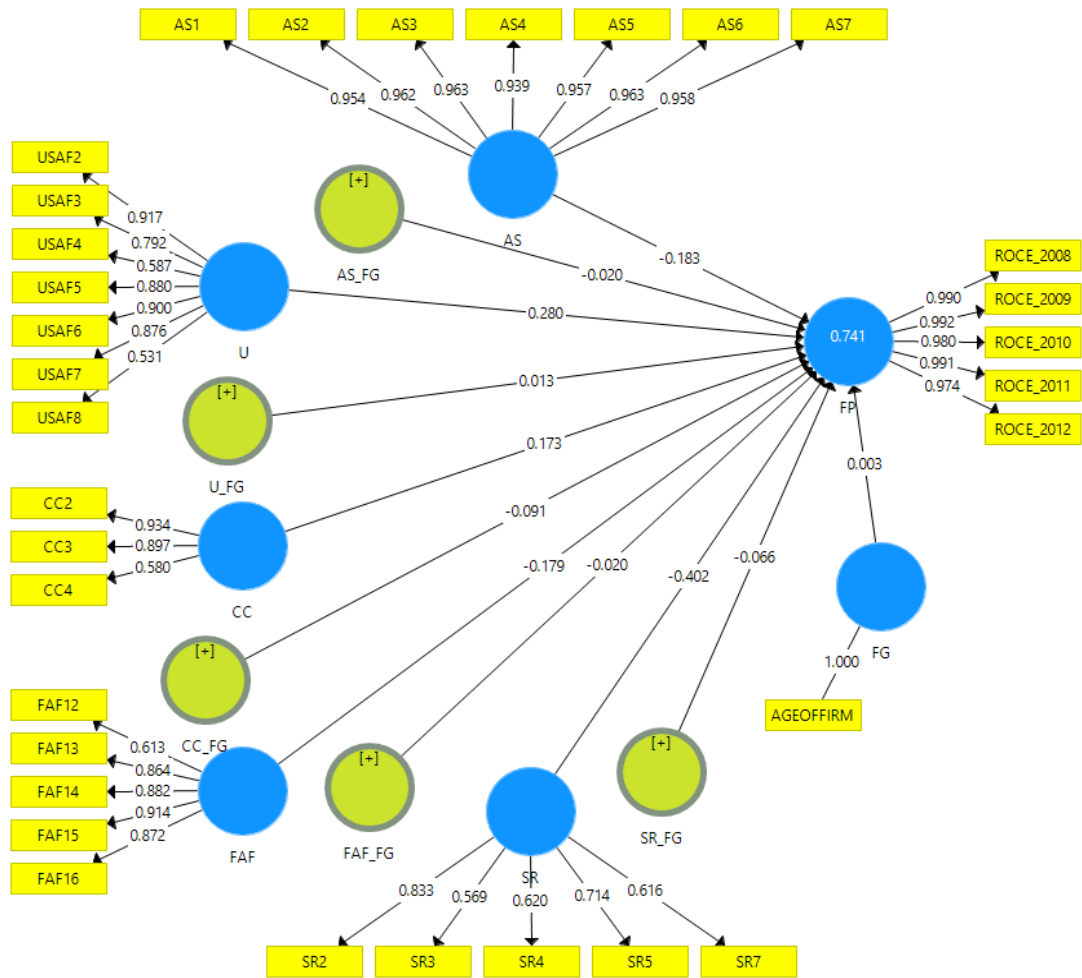


Figure 4.11: Moderating Effect of Firm Age on General Model

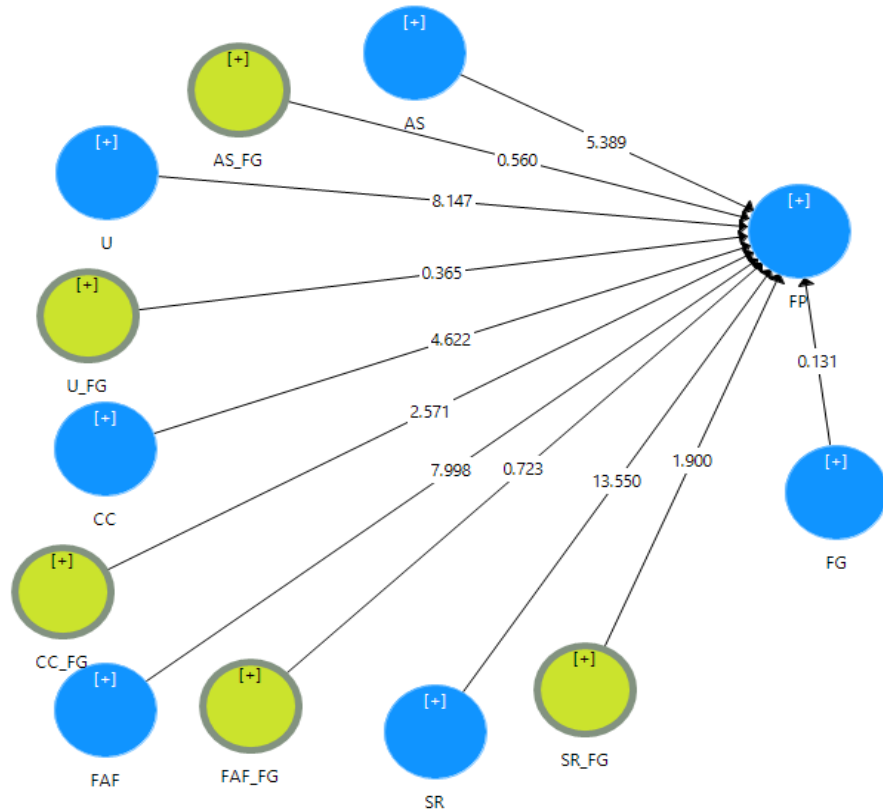


Figure 4.12: SmartPLS Bootstrapping for t-statistics

Table 4.52 β , t-Statistics & Significance for General Model moderated Firm Age

	β	Se	T	p-value	Financial Performance (FP)		
					R	R-Square	Adj R-Square
AS -> FP	-0.183	0.034	-5.389	0.000	0.8608	0.741	0.734
U -> FP	0.28	0.034	8.147	0.000			
FAF -> FP	-0.179	0.022	-7.998	0.000			
CC -> FP	0.173	0.037	4.622	0.000			
SR -> FP	-0.402	0.03	-13.55	0.000			
FG -> FP	0.003	0.026	0.131	0.896			

From the table 4.52, it was clear that firm age has little or insignificant moderating effect on the relationship between outsourcing of accounting functions and financial performance of SMEs in Nigeria. There was a slight increase of 0.006 in R² achieved

after the moderation (that is 0.741-0.735). A careful analysis of each path before and after moderation leaves the Researcher with no new change as each path maintained its beta sign and p-value before and after moderating effect. In fact, the path FG -> FP, which showed the general moderating effect of age of firm on the relationship between outsourcing of accounting functions and the financial performance of SMEs in Nigeria has path coefficient that was positive and insignificant at the 0.896 level ($\beta = 0.003$, $p > 0.05$). Therefore the age of the firm has no moderating effect on the relationship between accounting outsource drivers and financial performance of SMEs in Nigeria.

4.3.4.4 Optimal Model

Considering the analysis above in 4.4.4.2 and 4.4.4.3 where it was shown that both Size and Age of the firm have no moderating effect on the relationship between accounting outsource drivers and financial performance of SMEs in Nigeria, this study therefore produced the following optimal model:

$$FP = \beta_0 + \beta_1(AS) + \beta_2(U) + \beta_3(FAF) + \beta_4(CC) + \beta_5(SR) + \mu$$

$$FP = \beta_0 - 0.193(AS) + 0.286(U) - 0.171(FAF) + 0.169(CC) - 0.4(SR) + \mu$$

Where:

FP = Financial Performance (Dependent Variable)

$\beta_0 \dots \beta_5$ = Slope for each variable

AS = Asset Specificity for Accounting Functions

U = Uncertainties surrounding accounting functions

FAF = Frequency of Accounting Functions

CC = Capability Complementarity

SR = Strategic Relatedness

μ = Error term

4.3.4.5 Optimal Conceptual Framework

Considering the analysis above in 4.4.4.2 and 4.4.4.3 where it was shown that both Size and Age of the firm have no moderating effect on the relationship between accounting outsource drivers and financial performance of SMEs in Nigeria, this study therefore produced the following optimal concept framework:

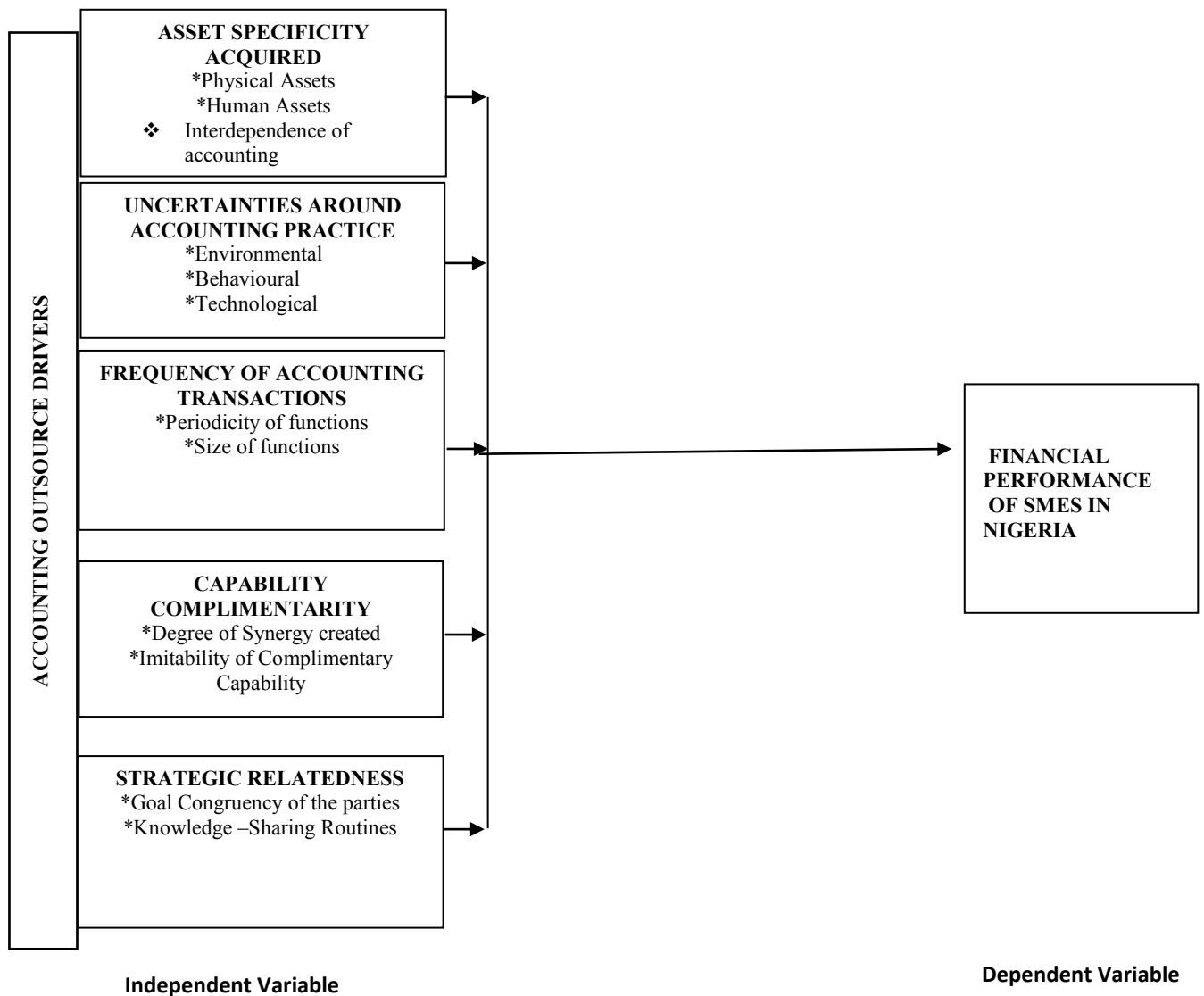


Figure 4.13

4.3.4.6 Goodness of Fit Model (GoF Model)

Go F assessment model can be seen in the amount of R^2 (R Square). Table 4.53 shows the amount of R-square at 0.735. This means that the proposed model is able to explain 73.5% of the changes in Financial Performance of SMEs vide outsourcing of accounting functions based on asset specificity employed, uncertainties surrounding accounting functions, frequency of accounting functions, capability complimentarity and strategic relatedness while the remaining 26.5% is explained by

unidentified variables outside the model. The R^2 of 0.735 indicates the proposed model is good enough.

Schepers, Wetzel, and de Ruyter (2005) explains that PLS does not have a single measurement GoF. R-square value indicates whether the model meets its goal of maximizing the variance. Cohen (1988) in Schepers, *et al*, (2005) explains that the effect size of R^2 can be grouped under the category of small ($R^2 = 0.02$), moderate ($R^2 = 0.13$), and large ($R^2 = 0.26$). This model shows the R^2 for Financial Performance (Table 4.53) is in the large category ($R^2 = 0.735 > 0.26$). Consequently, the model in this study showed a large effect size.

Table 4.53 Goodness of Fit Model

Variables	R^2	AVE
Asset Specificity		0.915
Uncertainties		0.635
Frequency		0.699
Capability Complementarity		0.671
Strategic Relatedness		0.558
Financial Performance	0.735	0.971

Vinzi, Chatelin, and Lauro (2005) develop a global measurements fit. This measure is the geometric mean of the average variance extracted and the average R^2 for the endogenous variables. GoF is calculated by the following formula:

$$\text{GoF} = \sqrt{(\text{AR2} \times \text{AAVE})}$$

where:

GoF. = Goodness of Fit

AR2 = Average R-Square

AAVE. = Average of the Average Variance Extracted

Based on the results obtained, the GoF value was 0.725 which was greater than the 0.26 band for large group as given by Schepers, *et al*, (2005). The results showed that the models goodness of fit measure is large an adequate of global PLS model validity.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this chapter the summary of the research findings, conclusion, recommendations and relevant areas for future research are presented.

5.2 Summary of the Study

The current research set out to investigate the relationship between accounting outsource drivers and the financial performance of SMEs in Nigeria. Specifically the research investigated how outsourcing of accounting functions based on asset specificity, uncertainties surrounding accounting functions, frequency of accounting functions, capability complementarity received from and strategic relatedness created with the accounting service providers influence the financial performance of these SMEs in Nigeria. The moderating significances of firms size and firms age were considered for a better insight into the relationship being examined. Relevant hypotheses were formulated, tested and results obtained. The result so obtained assisted in intelligent interpretations of the direction and significance of the relationships among the variables of the study.

Specific Objective 1: Outsourcing Relationship between asset specificity employed for accounting functions and the financial performance of SMEs in Nigeria.

The research results found that the accounting outsourcing based asset specificity has a significant and negative relationship with firm performance ($r = -0.704$ and $p < 0.05$). This finding was supported by earlier studies of (Everaert *et al.*, 2010; Alvarez-Suescun, 2010; Steven *et al.*, 2009). For this particular research the results with respect to the Nigerian SMEs supported that the level of their specific asset defined

by Barney (1991) are sufficient. As we know the accounting activities are mostly human oriented and large number of educational institutions give birth to thousands of new graduates to offer their services with cheap salary packages for SMEs in Nigeria. Therefore, most large number of SMEs internalized their accounting functions rather than to outsourcing to external party at a high cost for services which new accounting graduates can be employed for at a ridiculously low price. Also, the fixed asset acquired for accounting functions must be optimally utilised before thinking of contracting the functions to an outsiders. Hence, where this type of investment is high (Asset specificity increases) less is thought of outsourcing such functions so that such assets could contribute to the profit made. In management accounting contribution made by such assets is used to recover the cost of such asset which might have been tagged sunk cost. This practice will enhance the profit line of the organisation in due course.

Objective 2: Outsourcing Relationship between uncertainties surrounding accounting functions and the financial performance of SMEs in Nigeria.

The results supported that there is a significant and positive outsource relationship between uncertainties surrounding accounting functions and firm financial performance ($r = 0.82$ and $p < 0.05$). This positive relation indicates that the higher uncertainties surrounding the accounting functions the better for the organization to outsource the accounting functions for a better financial performance as part of the risks of uncertainties would have been shared with the external accounting experts. Uncertainty refers to unanticipated changes in circumstances surrounding an event. For instance technological change may lead to new generations of technology that render existing technology obsolete (Folta, 1998; Robertson & Gatignon, 1998) and may also result to a serious alteration to theoretical and practical knowledge, skills, production and supply chain systems that can be deployed along a firms value chain to develop goods and services (Burgelman *et al.*, 1996). Consequently uncertainties create new complexities for structuring value chain activities, especially when new

knowledge is applied at a faster rate reducing the time between innovations (Song and Montoya-Weiss, 2001).

Schoonhoven (1981) found that destandardization and decentralization of task execution had positive effects on firm performance under conditions of technological uncertainty. Harrigan (1986) argued that increases in technological uncertainty may lead firms to use less firm-specific resources but rely on the market. As a consequence, internalization is likely to decrease in the long-run, because strategic outsourcing allows firms to partly transfer the risk of task variability to the intermediate markets. Specialized firms in these markets may be better able to achieve cost efficiencies that are difficult for focal firms to achieve by balancing task requirements across multiple customers.

Objective 3: Outsourcing Relationship between frequency of accounting transactions and the financial performance of SMEs in Nigeria.

The results supported that there is a significant but negative outsourcing relationship frequency of accounting functions and firm financial performance ($r = -0.63$ and $p < 0.05$). This negative relation indicates that for an organization to improve her financial performance, the higher frequency of accounting tasks the lesser the accounting outsource. This finding was supported by previous literature (Everaert *et al.*, 2010; Williamson, 1985). The more the frequency of transactions, the more companys internalized accounting functions rather to outsource because it is costly to outsourcing from an external party. Usually in accounting functions the frequency and volume of transactions are very high and same is with Nigerian SMEs.

Objective 4: Outsourcing Relationship between capability complementarity received from exchange partners and the financial performance of SMEs in Nigeria.

The results supported that there is a significant and positive outsourcing relationship between capability complementarity received from exchange partners and the firm

financial performance ($r = 0.67$ and $p < 0.05$). This positive relation indicates that the higher accounting outsource based capability complements from the external accounting service providers the higher the profit line of the focal firm. This finding was supported by previous literature in Luo, (2002) and Hitt *et al.*, (2001) where Capability complementarity is given as a situation in which specialized capabilities enhance the value creation potential of a focal firms own capability endowments. Complementary capabilities are different, yet mutually supportive. Richardson (1972) suggests that capabilities are complementary when they represent different phases of production and require in some way or another to be coordinated in order to create maximum value. Where complementarities exist, the integration of internal and external capabilities enhances the potential financial performance firms realize.

Objective 5: Outsourcing Relationship between strategic relatedness created with the exchange partners and the financial performance of SMEs in Nigeria.

The research results found that there is a significant but negative outsourcing relationship between strategic relatedness created with the exchange partners and the financial performance of SMEs in Nigeria ($r = -0.61$ and $p < 0.05$). This finding is in the opposite direction to the expectation. This is because the strategic relatedness provides a rationale for capability-sharing between both parties for financial gains (Prahalad & Bettis, 1986; Rumelt, 1974; Tsai, 2000). Hence, it is expected that an increase in outsourcing of accounting functions based on strategic relatedness pursuit should flow in the same direction with financial performance but reverse was the case in this study. A high degree of relatedness between a firm and its exchange partners implies that they share common goals and are able to transfer knowledge between themselves more effectively for financial gains. (Holcomb & Hitt, 2006).

As profit-maximizing goals are aligned, strategic outsourcing not only reduces monitoring and enforcement costs associated with the arrangement but also increases synergies as well. When goals are aligned, specialized firms are more likely to share common interests with a focal firm and thus be more supportive of exploiting new

opportunities, even if such opportunities require these firms make additional investments. These synergies enable firms with common goals to more quickly exploit competitive imperfections observed in the market (Mahoney & Pandian, 1992) thus holding the potential to create value beyond cost savings alone and sustain long term relationships.

This negative direction of the result on this strategic relatedness among SMEs in Nigeria and their exchange partners could be accounted for with the following arguments. Despite the importance of goal congruity for success in exchange relationships (Luo, 2002), evidence suggests a lack of goal congruity in many such relationships. The result of this study therefore suggests that in a relationship of accounting outsourcing among SMEs in Nigeria, the parties are less committed to the long-term relationship we could see the buyer and supplier relationship of one-off. The reason may be that it is economic (low transaction costs) for Nigerian SMEs to move from one service provider to another or internalized all accounting functions. Another reason could be the excessive availability of service providers, be it individual or firms, because external accountants are providing services to many SMEs at the same time. Third reason could be the small business owners/managers do not want to outsource accounting functions to same external accountant every fiscal year so as not to lose company's confidential information to competitors. These might be some reasons that enforces SMEs to have short term relation with the external accountant in Nigeria. In this study it is evidence that the SMEs owners/managers and external accountants are in a relationship that is short-term oriented, both parties will have an incentive to exploit each other as quickly as possible and exit the relationship. This means that there is less effort to build and maintain long term relationship. Therefore, for this particular research the results on outsourcing based on strategic relatedness is not supported as an influencer for enhancing SMEs financial performance in Nigeria.

Objective 6: To assess the moderating significance of firms size on the relationship between Accounting Outsource Drivers and financial performance of SMEs in Nigeria.

Results suggest that there is no significant moderating effect of firms size on the relationship between outsourcing of accounting functions and financial performance of SMEs in Nigeria. The path FZ -> FP, which showed the general moderating effect of size of firm on the relationship between outsourcing of accounting functions and the financial performance of SMEs in Nigeria has path coefficient that was negative and insignificant at the 0.654 level ($\beta = -0.011$, $p > 0.05$). This result was in line with Gooderham et al. (2004), found that external accountants business advice unrelated to the size of the firm and Carey *et al.* (2006), who revealed that firm size is not associated with the level of accounting functions outsourcing. The business ethics and best practices are not differentiated on the bases on firms sizes.

Objective 7: To assess the moderating significance of firms age on the relationship between Accounting Outsource Drivers and financial performance of SMEs in Nigeria.

Results suggest that there is no significant moderating effect of firms age on the relationship between outsourcing of accounting functions and financial performance of SMEs in Nigeria. The path FG -> FP, which showed the general moderating effect of age of firm on the relationship between outsourcing of accounting functions and the financial performance of SMEs in Nigeria has path coefficient that was positive

and insignificant at the 0.896 level ($\beta = 0.003$, $p > 0.05$). This result was in line with the views of Glaum and Street (2003) that younger firms tend to concentrate on product and market development when establishing their businesses, rather than accounting operation thus neglecting the importance of this function and see no justification for outsourcing it. Consequently, Glaum and Street (2003) contend that younger firms accounting systems tend to be inadequate, resulting in lower quality accounting and disclosure. In Nigeria, evidences abound that good number of SMEs are young and exhibit the scenario presented above.

In general, the findings regarding the moderating effect of firms age on the relationship between outsourcing accounting functions and financial performance are mixed. Owusu-Ansah (1998) finds that firm age has a positive effect on outsourcing accounting functions among SMEs in Zimbabwe. However, Glaum and Street (2003) find no evidence of such a relationship among new Germanys new market firms. Al-Sammari et al. (2008) reveal that, although firm age does not significantly affect the level of outsourcing accounting among a full sampled companies taken for the study, it does significantly affect the outsourcing level among a sub-sample of 50 Kwaitian Stock Exchange-listed firms.

5.3 Conclusions

The overall objective of the study was to investigate the relationship between accounting outsource drivers and the financial performance of small and medium enterprises in Nigeria. Several hypotheses were formulated based on the constructs

of the Independent Variables in relations to the Dependent Variables within Nigerian context. The study specifically seeks to explore the act of outsourcing of accounting functions based on some drivers, as given by both the Transaction Cost Economies theory (TCE) and Resource Based Views (RBV), on the financial well-being of SMEs in Nigeria. The outsourcing drivers considered by this study therefore included: asset specificity employed, uncertainties surrounding accounting functions, frequency of accounting tasks, capability complementarity from the exchange partners and strategic relatedness between exchange partners.

Based on the empirical evidences and results of the analysis, a number of logical conclusions were reached. The researcher concludes that there is strong and negative relationship between accounting functions outsourced based on the asset specificity employed and the financial performance of the organisation. This position was clearly shown through the descriptive statistics where the five levels of investment in specific assets employed for accounting functions were cross-tabulated to the financial gains accrued to the organisations. Also, the inference statistics confirmed the existence on significant relationship where the p-value obtained is less than 5% significant level and the negative gradient obtained that is, $\beta = -0.193$ to depict the contribution of accounting functions outsourced to 1% change in the financial performance of the organization.

The study concluded that there is strong and positive relationship between accounting functions outsourced based on the uncertainties and the financial performance of the organisation. This position was clearly shown through the descriptive statistics where the effect of incessant changes in technology on the execution of the accounting functions was cross-tabulated with the financial performance of the organisations for the study period. Also, the inference statistics confirmed the existence on significant relationship where the p-value obtained is less than 5% significant level and the positive gradient obtained that is, $\beta = 0.286$ to depict the contribution of accounting functions outsourced based on uncertainties to 1% change in the financial performance of the organization.

The study further concluded that there is a strong and negative relationship between accounting functions outsourced based on the frequency of transactions and the financial performance of the organisation. This position was clearly shown through the descriptive statistics where both the velocity and size of accounting transactions were cross-tabulated with the financial performance of the organisations for the study period. Also, the inference statistics confirmed the existence on significant relationship where the p-value obtained is less than 5% significant level and the negative gradient obtained that is, $\beta = -0.171$ to depict the contribution of accounting functions outsourced based on frequency of transactions to 1% change in the financial performance of the organization.

The researcher concluded that there is strong and positive relationship between accounting functions outsourced based on capability complementarity received from exchange partners and the financial performance of the organisation. This position was clearly shown through the descriptive statistics where the specialised capabilities received from exchange partners to strengthen the internal decision process were cross-tabulated with the financial performance of the organisations for the study period. Also, the inference statistics confirmed the existence on significant relationship where the p-value obtained is less than 5% significant level and the positive gradient obtained that is, $\beta = 0.169$ to depict the contribution of accounting functions outsourced based on capability complementarity to 1% change in the financial performance of the organization.

The researcher concluded there is a strong and negative relationship between accounting functions outsourced based on strategic relatedness with exchange partners and the financial performance of the organisation. This position was clearly shown through the descriptive statistics where the organisations objectives of outsourcing accounting functions were identified and the financial performances under each objective were compared with the organisations who in-house these functions. Also, knowledge sharing plans with the exchange partners were reviewed to ascertain the values added to the organisations value chains. Also, the inference statistics confirmed the existence on significant relationship where the p-value

obtained is less than 5% significant level and the positive gradient obtained that is, $\beta = -0.169$ to depict the contribution of accounting functions outsourced based on capability complementarity to 1% change in the financial performance of the organization. However, the gradient obtained in this study deviated from the general belief that strategic relatedness should have positive effect on the profitability of the organization in the long run. The evidences obtained from this study was that SMEs in Nigeria and their exchange partners see this relationship as one-off affairs and try to maximize their benefits for the period it lasts, usually for a short period of time.

Finally, the Researcher concluded that general moderating effect of firm characteristics proxied with firm size and firm age have little or insignificant influence on the relationship between Accounting Outsource Drivers and the financial performance of SMEs in Nigeria as their path coefficient (beta) are insignificant at the 0.654 and 0.896 level respectively ($p > 0.05$). Therefore, both firm size and firm age have no moderating effect on the relationship between accounting outsource drivers and financial performance of SMEs in Nigeria.

5.4 Recommendations

The primary value and benefit of outsourcing accounting functions has been in opening up new and novels ways of extending the professional accounting services to business today. The focus on core competencies is a key attraction of outsourcing practice in modern business. From the researchers vantage point, about 70 percent of the SMEs sampled appeared to establish some sort of accounting outsourcing. However, the level of satisfaction among these SMEs in Nigeria from the experience of outsourcing accounting functions is still not very inspiring. Consequently, the following recommendations are pertinent:

- 1) SMEs should put in place a good track record to promptly ascertain the cost of Investment in specific assets employed for their accounting functions. This is necessary as this value is a driving force for a decision on accounting

outsource. This study shows that there was a significant negative relationship between the investment in specific assets employed for accounting functions and the financial performance of the organization. This position was also supported by the descriptive statistics, see tables 4.9 and 4.11 where major findings revealed that there is inverse relationship between outsourcing of accounting functions and the investment in specific both physical and human asset employed. More of outsourcing was done at the lowest level of Investment while this was reduced as this investment in specific assets increases. Consequently, when this investment is high, the SMEs should look inward and forget about accounting functions outsource so as to recover the cost invested and improve their financial performance. However, when this investment is low, the organization can embark on outsourcing of the accounting functions in order to improve her financial performance.

- 2) In the presence of uncertainty, greater internal resource commitments produce more exposure to negative shocks. Thus, higher the uncertainties (economical, behavioural and technological) surrounding the execution of accounting functions the better for the organization to outsource (looking into the market) these functions to reduce the internal resource commitment thus reducing the organisations negative exposure to shocks. This will assist the organization to improve her financial performance.
- 3) Outsourcing based frequency of accounting functions will be profitable to organisations where the frequency is low. However, with high frequency it will be profitable to carry such functions in-house to enjoy economies of large scale production and checkmate the behavioral unpredictability (service delivery delays, incessant changes to rules etc) of the external accounting service providers. This action ultimately improves the financial performance of the organization.

- 4) The paucity of accounting skills and knowledge among SMEs owners/managers in Nigeria can be resolved by focal firms instituting flexible organizational structure where markets assistance is sought to tap into exchange partners professional capabilities. This act will minimize this internal deficiency and creates avenue for the organizations to enjoy capability complementarity which is given as a situation in which specialized capabilities obtained from outside enhance the value creation potential of a focal firms own capability endowments. Thus, where complementarities exist, the integration of internal and external capabilities enhances the potential financial performance firms realize.
- 5) The accounting outsource relationship established should be strategic and long term in nature as against the usual short term practices by the SMEs in Nigeria. The external accountants, who are experts in this field of accounting, can become mentors and advisors on how to further devise the firms strategies. The long term relationship created would morally compel all the parties involved to align their goals (goals congruency) and put an arrangement in place for easy knowledge sharing for the benefit of the entire group. This will go a long to ensuring mutual trust and cooperative attitude among the parties.
- 6) There is little or insignificant moderating capacity of both firm size and firm age on the relationship between the accounting outsource drivers and the financial performance of the organisations. This simply implies that outsourcing strategy is needed by firms of all sizes and ages.

5.5 Suggestions for further studies

Outsourcing arrangements may involve the exchange of substantial financial considerations for assets controlled by SMEs. Where is value created (and lost) by

the organizations and intermediate markets? Determining optimum point for these two values (financial commitment and value creation) worth researched on.

Another area of outsourcing that may be researched in future is the determination of the right choice of outsourcing objectives for different developmental phases of the organisation. The present generalization of outsourcing objectives for all phase of organization or product life cycle certainly is not right.

Vast majority of literature focuses less attention to customers decisions based on outsourcee of the organisation. Customers perceptions on the different sources of outsourcing needs to be researched on.

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APPENDICES

APPENDIX I -Questionnaire

FOR THE SMALL & MEDIUM ENTERPRISES IN NIGERIA (SMEs)
JOMO KENYATTA UNIVERSITY OF AGRICULTURE & TECHNOLOGY
SCHOOL OF HUMAN RESOURCE DEVELOPMENT
DEPT OF ACCOUNTING & FINANCE
MAIN CAMPUS, JUJA
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22nd June, 2015

Dear Sir/Madam,

My name is Oluwaremi Feyitimi and I am a Doctoral Student of Accounting at the Jomo Kenyatta University of Agriculture and Technology in Kenya, East-Africa. As part of the course, all candidates are required to undertake a research project that examines a significant issue relating to business. The purpose of this study will be to explore the effects of outsourcing accounting functions on the financial performance among Small and Medium Enterprises in Nigeria. This research will attempt to develop a model, of those issues and factors, which drive the decisions of small business in outsourcing the finance and accounting functions.

In this regard, I have attached a survey questionnaire. Completion of the survey questionnaire is voluntary and will take approximately 20 minutes to complete. Please answer all questions and return the same form to me. Surveys are **private** and **confidential**. The information you give will be kept in a secure place and used only for the purposes stated here.

Your assistance in completing the survey is appreciated. If you have any complaints or any area for clarification, you may contact me vide my above stated information.

Kind regards

Oluwaremi Feyitimi (B.Sc, MBA, ACPIN, ACTI, FNES, FCA)

HD439-1544/2013

PLEASE ANSWER THE FOLLOWING QUESTIONS BY CROSSING (×) THE RELEVANT BLOCK OR WRITING DOWN YOUR ANSWER IN THE SPACE PROVIDED.

Section A – Background information

This section of the questionnaire refers to background or biographical information. Although we are aware of the sensitivity of the questions in this section, the information will allow us to compare groups of respondents. Once again, we assure you that your response will remain anonymous. Your co-operation is appreciated.

1	Position of Respondent in the firm	
	Owner/SME Operator	
	Manager	

2	Educational Level	
	University Degree	
	Lower than University Degree	

3	Sector of your firm	
	Agric, Forestry & Fishing	
	Minning & Quarrying	
	Manufacuring	
	Building & Construction	
	Wholesale & Retail	
	Hotels & Restaurants	
	Transport & Communication	
	Financial Intermediary	
	Real Estate & Renting Biz	
	Education	
	Health & Social Work	
	Social & Personal Services	

4	Firms Age	
	Less than 2years	
	2-5years	
	6-10years	
	11-15years	
	Above 15years	
5	Firms Size	
	Less than 10 employees	
	10-30 employees	
	31-50 employees	
	51-100 employees	
	100-200 employees	

Section B

This section explores your companys reason for the values invested on her various assets used in the operations that is, **asset specificity** that shows the reasons why the organizations assets are so precious in the eyes of the company for utilisation.

6) Do you have an Accounting Department in your organization?

Yes

No

7) If your answer to question 6 above is Yes please thick from the list below the highest qualification of the most senior officer in your Accounting Department.

- a) Basic Primary Education and Ordinary School Certificate
- b) NCE, OND and HND
- c) University First Degree
- d) University Post Graduate Degree
- e) Accounting or Business Professional Qualification

8) Please tick, in the list below, the approximate range for your organizations investment on physical assets employed in the Accounting Department.

- a) =N0 - =N50,000
- b) =N50,001 - =N200,000
- c) =N200,001 - =N500,000
- d) =N500,001 - =N999,000
- e) Over =N1,000,000

9) Please tick, in the list below, the approximate range for your organizations investment on human assets employed in the Accounting Department.

- a) =N0 - =N50,000
- b) =N50,001 - =N100,000

c) =N100,001 - =N500,000

d) =N500,001 - =N999,000

e) Over =N1,000,000

10) To what extent does your accounting departments action impact on work carried out in other subunits of your firm?

To no extent To a little extent Some extent Great extent

Very great extent

11) To what extent do actions of other subunits of the firm impact on work carried out

in your accounting department?

To no extent To a little extent Some extent Great extent

Very great extent

source: Keating, 1997

12) How easy is it for a new accounting staff to learn the ins and outs he/ she needs to know to be effective in the Accounting Department of your organisation?

Very easy Quite easy Neither easy nor difficult

Quite difficult Very difficult

source: Anderson and Schmittlein, 1984; modified

13) How unique are the skills and knowledge of the accounting staff compared to skills and knowledge of employees of other companies who work on similar activities?

Not at all unique Unique to a little extent Somewhat unique
Quite unique Very unique

14) How much of the equipment in your accounting department is especially designed or unique compared to equipment used for similar activities in other companies? Examples of equipment are machinery, tools, or warehousing.

None Some About half Most All

source: Coles and Hesterly, 1998; modified

Section C

Accounting functions of every organization are surrounded by **Uncertainties (U)** which include: environmental, behavioural and technological that depict the unpredictability and instability of the workload involved in carrying out the accounting and other business processes.

15) Did your organization experiencing frequent changes to accounting standards and policies in the recent past years?

YES

NO

16) Identify the level of Nigerian business environmental uncertainty, in terms of changing rules and regulations, on the execution of the following accounting functions of your organization:

ACCOUNTING FUNCTIONS	HIGH	AVERAGE	LOW
General Ledger Processing			
Account Payables/Account Receivables			
Payroll Accounting			
Fixed Assets Accounting			
Inventory Accounting			
Budgeting			
Management Accounting			
Taxation			

17) Did your organization experience frequent contract re-negotiation due to instability in economic indices (price, wages, inflation rate etc) during the previous years?

YES

NO

18) Has your accounting service provider been accurately discharging his duties with respect to accounting functions outsourced?

YES

NO

19) Did your organization experience delay in the service delivery from the accounting service providers in the previous years?

YES

NO

20) Did your accounting service provider ask for review of professional fees frequently in the previous years?

YES

NO

21) Were there technological changes in the way accounting functions were processed in the previous years?

YES NO

22) If your answer to question No. 20 is yes, did your accounting service provider promptly intimate the organization about the relevant technological changes?

YES NO

23) How many accounting service providers has your organization employed and relieved in the last 5years?

0 1 2

3 4

24) What is your organizations most critical reason for replacing an external accountant in the previous years?

Fees becoming high Unfaithfulness of the external accountant

Unsatisfactory performance of external accountant Regulatory demand

Section D

Frequency of Accounting Functions (FAF) is depicted by the effect periodicity and size of accounting functions on the intensity of their outsourcing (Evaraet et. Al, 2010).

25) How often do you think the following accounting functions occur your business (recurrence of transaction)? Please indicate your answer using the following 6 point

scale where daily (D), weekly (W), Monthly (M), Quarterly (Q), Half yearly (H) and Anually (A).

ACCOUNTING FUNCTIONS	D	W	M	Q	H	A
General Ledger Processing						
Account Payables/Account Receivables						
Payroll Accounting						
Fixed Assets Accounting						
Inventory Accounting						
Budgeting						
Management Accounting						
Taxation						

26) Pease indicate, by ticking appropriately, the likely size (in Naira value) of the following typical accounting functions for each batch processing.

=N000	1-50	51-100	101-200	201-500	501 and above
General Ledger Processing					
Account Payables/Account Receivables					
Payroll Accounting					
Fixed Assets Accounting					
Inventory Accounting					
Budgeting					
Management Accounting					
Taxation					

Section E

This section tries to ascertain the synergy derived from accounting service providers. This is called **Capability Complementarity (CC)** that reflects a situation in which specialized capabilities sourced from outside enhance the value creation potential of a firms own capability endowments.

27) In what major way has the output of accounting functions outsourced assisted your organization in internal decision making process?

- a) Make or Buy decision
- b) Joint Venture Agreement
- c) Stock Control Decision
- d) Pricing Decision
- e) Capital/Debt Decision

28) Does the integration of internal and external capabilities enhance the financial performance gains of your organization in the previous years?

- Yes
- No

29) In what area(s) of your organization did you realize the financial gain in the previous years resulting from the support of Accounting Service Providers?

- a) Return on Capital Employed
- b) Improved Sales Volume
- c) Reduced Bad Debt Value
- d) Higher Profit Margin
- e) Reduced Production Wastage/Scrap

30) Which specialized capabilities did your organization obtained from the external accounting services providers that complimented the internal capabilities endowment in the previous years?

- a) Creation of Fixed Assets register/Maintenance
- b) Working Capital Management techniques
- c) Budget and Budgeting Techniques
- d) Tax and Tax Management
- e) Setting up Accounting System

31) The capabilities gained from outsourcing experience cannot be easily imitated by other competitors in the industry?

Yes No Dont Know

Section F

This section aims to obtain information on the extent of **goal congruence and commonality of knowledge-sharing routines (GCKSR)** between your organization and the accounting service provider.

32) Which of the following is your objective for outsourcing accounting function or nearest to it

- a) To minimize cost
- b) To enjoy the expertise of the external accountant

- c) To form strategic alliance with professional accountant
- d) To focus more on the organizations core competence
- e) To comply with the order of the day.

33) When last did you discuss and agree the organisations objective(s) for outsource accounting functions with the external accountant.

- a) Less than a year ago
- b) Between 2-5 years ago
- c) Above 5years ago
- d) Never

34) How will you rate the accounting service provider in assisting your organization achieving the objective(s) of engaging his service?

- Excellent
- Good
- Better
- Poor
- Dont Know

35) What are the yardsticks you have been using to monitor the external accountants support to the achievement of your objective(s)?

- a) Timeliness of the output
- b) Relevance of the output
- c) Adequacy of the output
- d) Stability of the contractual agreement
- e) Availability of the accounting service provider when needed

36) Did you ever ask your external accountant for his objective of taking the outsourcing of accounting functions from your organisation?

YES NO

37) Did you establish Knowledge Sharing Plans with your external accountant?

YES NO

38) On what platform does the knowledge sharing rendered by your accounting service provider?

- a) Through training arrangement
- b) Through newsletters from the external accountant
- c) Calling the organisations attention to any relevant information from dailies and other periodicals
- d) References to the government/professional bodies pronouncements on any significant change to the existing accounting standards / rules

39) Are you incurring additional fees for this knowledge sharing from the external accountant?

YES

NO

Section G

This section aims to obtain information on the nature of **outsourcing accounting functions** in your organization.

40) Tick as appropriate where your firm carries out the following accounting functions

ACCOUNTING FUNCTIONS	IN-HOUSE	OUTSOURCE
General Ledger Processing		
Account Payables / Account Receivables		
Payroll Accounting		
Fixed Assets Accounting		
Inventory Accounting		
Budgeting		
Management Accounting		
Taxation		

Thank you for your co-operation in completing this questionnaire.

OLUWAREMI FEYITIMI (*B.Sc, MBA, AMNIM, ACTI, FNES, FCA*)

The Researcher

APPENDIX II -Questionnaire Administration

S/N	SECTOR	STATES	GEO-ZONE	NO. OF SMES	MIN. SAMPLE SIZE	QUESTIONNAIRE DISTRIBUTED	RETURNED QUESTIONNAIRE	NON-VALID	GOOD QUESTIONNAIRE FOR STUDY	PERCENT
1	Agric, Forestry & Fishing	Lagos	SW	72	5	10	7	1	6	60%
		Enugu	SE	50	3	6	4		4	67%
2	Mining & Quarrying	Edo	SS	56	4	7	5		5	71%
		Ebonyi	SE	13	1	3	3		3	100%
3	Manufacturing	Lagos	SW	1,195	78	87	87	4	83	95%
		Oyo	SW	272	18	22	15		15	68%
4	Building & Construction	Lagos	SW	36	2	5	3		3	60%
		River	SS	18	1	3	1		1	33%
5	Wholesales & Retail	Lagos	SW	545	35	40	40	4	36	90%
		Oyo	SW	294	19	25	21		21	84%
6	Hotels & Restaurants	Lagos	SW	293	19	25	22	2	20	80%
		Edo	SS	126	8	12	11	1	10	83%
7	Transport & Communication	Lagos	SW	71	5	7	3		3	43%
		Oyo	SS	54	4	6	3		3	50%
8	Financial Intermediation	Lagos	SW	335	22	35	27	2	25	71%
		Oyo	SW	177	12	15	12		12	80%
		Edo	SS	158	10	24	12		12	50%
		Delta	SS	158	10	24	14		14	58%
9	Real Estate	Lagos	SW	200	13	16	14		14	88%
		Oyo	SW	110	7	10	8		8	80%
10	Education	Lagos	SW	452	29	30	34	3	31	103%
		Oyo	SW	117	8	12	11		11	92%
11	Health & Social Work	Lagos	SW	526	34	40	33		33	83%
		Oyo	SW	200	13	18	13		13	72%
		Anambra	SE	188	12	20	13		13	65%
12	Social & Personal Services	Lagos	SW	128	8	12	9	1	8	67%
		Oyo	SW	63	4	6	4		4	67%
TOTAL				5,907	384	520	429	18	411	79%

APPENDIX III –Screening: Item Total Correlation, Reliability & Factor Loading

ASSET SPECIFICITY [AS]

		Item-Total Statistics						
S/N	ITEM	N	Mean	Std. Deviation	Corrected Item-Total Correlation	Cronbachs Alpha if Item Deleted	Factor Loading	Remark
AS 1	Existence of Accounting Department in your organisation	411	3.29	1.027	.931	.981	.954	**
AS 2	Highest qualification of the most senior officer in the Accounting Department	411	3.58	1.073	.951	.979	.962	**
AS 3	Approximate range of the organisations investment in physical assets employed for accounting functions	411	3.71	1.133	.954	.979	.963	**
AS 4	Approximate range of the organisations investment in human assets employed for accounting functions	411	3.93	.923	.924	.982	.939	**
AS 5	For a new staff to adjust or cope with the dynamics of the accounting department	411	3.95	1.136	.943	.980	.957	**
AS 6	Uniqueness of skills and knowledge of the accounting staff compared to skills and knowledge of employees of other companies who work on similar activities	411	3.32	1.238	.944	.980	.963	**
AS 7	To what extent does your accounting departments action impact on work carried out in other subunits of your firm?	411	3.20	1.237	.939	.981	.958	**
	Cronbachs Alpha	0.983		7 items				
	KMO Test	0.893						
	Bartlett's Chi-Square	5379.461						
	Df	21						

Sig

.000

Extraction Method: Principal Component Analysis.

** Item Selected for the study since Corrected Item Total Correlation is equal or greater than 0.3 (Hair et al., 2006)

Uncertainties Surrounding Accounting Functions [USAF]

A) All items under the construct

Item-Total Statistics

S/N	ITEM	N	Mean	Std. Deviation	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Factor Loading	Remark
USAF 1	Did your organization consider Nigerian business environment volatile for accounting practices?	411	1.91	.287	.262	.611	.613	
USAF 2	Identify the level of Nigerian business environmental uncertainty, in terms of changing rules and regulations, on General Ledger Processing	411	2.38	.755	.637	.543	.900	**
USAF 3	Identify the level of Nigerian business environmental uncertainty, in terms of changing rules and regulations, on Account Payable/Account Receivable	411	2.40	.631	.361	.593	.782	**
USAF 4	Identify the level of Nigerian business environmental uncertainty, in terms of changing rules and regulations, on Payroll Accounting	411	2.02	.717	.529	.564	.564	**
USAF 5	Identify the level of Nigerian business environmental uncertainty, in terms of changing rules and regulations, on Fixed Assets Accounting	411	2.36	.790	.640	.539	.939	**
USAF 6	Identify the level of Nigerian business environmental uncertainty, in terms of changing rules and regulations, on Inventory Accounting	411	2.41	.766	.642	.541	.954	**
USAF 7	Identify the level of Nigerian business environmental uncertainty, in terms of changing rules and regulations, on Budgeting	411	2.51	.738	.614	.548	.901	**

USAF 8	Identify the level of Nigerian business environmental uncertainty, in terms of changing rules and regulations, on Management Accounting	411	2.26	.585	.354	.607	.837	**
USAF 9	Identify the level of Nigerian business environmental uncertainty, in terms of changing rules and regulations, on Taxation	411	1.39	.514	.075	.626	.946	
USAF 10	your organization experience frequent contract re-negotiation due to instability in economic indices (price, wages, inflation rate etc) during the previous years?	411	1.11	.310	.296	.611	.839	
USAF 11	Has your accounting service provider been accurately discharging his duties with respect to accounting functions outsourced?	411	1.41	.739	.238	.608	.946	
USAF 12	Did your organization experience delay in the service delivery from the accounting service providers in the previous years?	411	1.55	.746	.208	.613	.891	
USAF 13	Did your accounting service provider ask for review of professional fees frequently in the previous years?	411	1.50	.694	.082	.629	.842	
USAF 14	Were there technological changes in the way accounting functions were processed in the previous years?	411	1.03	.235	.181	.619	.465	
USAF 15	If your answer to question No. 16 is yes, did your accounting service provider promptly intimate the organization about the relevant technological changes?	411	1.54	.682	.122	.624	.940	
USAF 16	How many accounting service providers has your organization employed and relieved in the last 5years?	411	1.29	.828	-.301	.691	.756	
USAF 17	What is your organizations most critical reason for replacing an external accountant in the previous years?	411	2.04	1.380	-.122	.716	.872	
	Cronbachs Alpha		0.623					17 items
	KMO Test		0.663					
	Bartlett's	Chi-Square	6435.858					
		Df	136					
		Sig	.000					

Extraction Method: Principal Component Analysis.

** Item Selected for the study since Corrected Item Total Correlation is equal or greater than 0.3 (Hair et al., 2006)

Frequency of Accounting Functions [FAF]

A) All items under the construct

Item Statistics									
S/N	ITEM	N	Mean	Std. Deviation	Corrected Item-Total Correlation	Cronbachs Alpha if Item Deleted	Factor Loading	Remark	
FAF 1	To what extent do you think the General Ledger Processing happens in the business (recurrence of transaction).	411	2.76	.838	-.254	.688	.584		
FAF 2	To what extent do you think the Account Payables/Account Receivables Processing happens in the business (recurrence of transaction).	411	2.80	.887	-.303	.618	.555		
FAF 3	To what extent do you think the Payroll Accounting Processing happens in the business (recurrence of transaction).	411	1.81	.539	-.073	.655	.666		
FAF 4	To what extent do you think the Fixed Asset Accounting happens in the business (recurrence of transaction).	411	3.32	.680	.123	.640	.234		
FAF 5	To what extent do you think the Inventory Accounting happens in the business (recurrence of transaction).	411	2.15	.958	.114	.646	.660		
FAF 6	To what extent do you think the Budgeting happens in the business (recurrence of transaction).	411	2.40	.976	.183	.636	.847		
FAF 7	To what extent do you think the Management Accounting Practices happen in the business (recurrence of transaction).	411	2.72	.833	.266	.596	.601		
FAF 8	To what extent do you think the Taxation Processing happens in the business (recurrence of transaction).	411	2.62	.922	.170	.637	.592		

FAF 9	What is the likely size (in Naira Value) of General Ledger for each batch processing	411	2.01	.995	-.049	.670	.708	
FAF 10	What is the likely size (in Naira Value) of Account Payable/Receivable for each batch processing	411	2.09	.975	.033	.658	.763	
FAF 11	What is the likely size (in Naira Value) of Payroll Accounting for each batch processing	411	2.86	.787	.203	.566	.746	
FAF 12	What is the likely size (in Naira Value) of Fixed Asset Accounting for each batch processing	411	2.42	.971	.519	.679	.511	**
FAF 13	What is the likely size (in Naira Value) of Inventory Accounting for each batch processing	411	2.72	1.073	.664	.550	.935	**
FAF 14	What is the likely size (in Naira Value) of Budgeting for each batch processing	411	2.01	.912	.688	.558	.889	**
FAF 15	What is the likely size (in Naira Value) of Management Accounting for each batch processing	411	2.70	1.111	.624	.556	.938	**
FAF 16	What is the likely size (in Naira Value) of Taxation for each batch processing	411	2.52	.821	.582	.581	.854	**
	Cronbachs Alpha	0.641		16 items				
	KMO Test	0.787						
	Bartlett's Chi-Square	4526.450						
	df	120						
	Sig	.000						

Extraction Method: Principal Component Analysis.

** Item Selected for the study since Corrected Item Total Correlation is equal or greater than 0.3 (Hair et al., 2006)

Capability Complimentarity from Exchange Partners[CC]

A) All items under the construct

Item Statistics

S/N	ITEM	N	Mean	Std. Deviation	Corrected Item-Total Correlation	Cronbachs Alpha if Item Deleted	Factor Loading	Remark
CC 1	In what major way has the output of accounting functions outsourced assisted your organization in internal decision making process?	411	3.00	.932	-.185	.612	.921	
CC 2	Does the integration of internal and external capabilities enhance the financial performance gains of your organization in the previous years?	411	2.04	.992	.427	.238	.852	**
CC 3	In what major area of your organization did you realize the financial gain in the previous years resulting from support of Accounting Service Provider?	411	2.01	.980	.445	.226	.811	**
CC 4	Which specialized capabilities did your organization obtained from the external accounting services provider that complimented the internal capabilities endowment in the previous years?	411	3.54	1.406	.538	.033	.807	**
CC 5	The capabilities gained from outsourcing experience cannot be easily imitated by the competitors	411	2.43	.927	.011	.511	.902	
Cronbachs Alpha		0.436	5 items					
KMO Test		0.548						
Bartlett's Chi-Square		511.501						
df		10						
Sig		.000						

Extraction Method: Principal Component Analysis.

Item Selected for the study since Corrected Item Total Correlation is equal or greater than 0.3 (Hair et al., 2006)

**

Strategic Relatedness with Exchange Partners[SR]

A) All items under the construct

S/N	ITEM	N	Mean	Std. Deviation	Corrected Item-Total Correlation	Cronbachs Alpha if Item Deleted	Factor Loading	Remark
SR 1	Which of the following is your objective for outsourcing accounting function or nearest to it	411	2.91	1.221	-.304	.732	.816	
SR 2	When last did you discuss and agree the organisations objective(s) for outsourcing accounting function with the external accountant	411	2.07	.793	.325	.498	.842	**
SR 3	How will you rate the accounting service provider in assisting your organization achieving the objective(s) of engaging his service	411	2.47	.867	.745	.344	.919	**
SR 4	What are yardstick you have been using to monitor the external accountants support to the achievement of your objective(s)	411	2.89	.971	.697	.341	.841	**
SR 5	Did you ever ask your external Accountants for his objective of taking the outsourcing of accounting functions from your organisation.?	411	2.57	.885	.383	.540	.855	**
SR 6	Did you establish knowledge sharing plans with your external accountant	411	3.35	.574	.067	.561	.097	
SR 7	On what platform does the knowledge sharing redered by your accounting service provider?	411	2.98	.898	.506	.430	.519	**
SR 8	Are you incurring additional fees for this knowledge sharing from the external accountant	411	2.34	1.139	.282	.509	.843	
	Cronbachs Alpha	0.548						
	KMO Test	0.600		8 items				
	Bartlett's Chi-Square	1469.393						
	Df	28						
	Sig	.000						

Extraction Method: Principal Component Analysis.

** Item Selected for the study since Corrected Item Total Correlation is equal or greater than 0.3 (Hair et al., 2006)

APPENDIX IV -Financial Performance Indicators of SMEs

Overall Financial Performance Indicators of SMEs

	2008	2009	2010	2011	2012	5-year Mean
Profitability						
Return on Equity (ROE)	4.09	4.33	4.48	4.59	4.90	4.48

Analysis of the Financial Performance by Industry

Industry	Financial Performance Indicators		2008	2009	2010	2011	2012	5-year Mean
Agriculture, Forestry & Fishing	Profitability	Return on Equity	3.67	3.89	3.01	3.66	3.9	3.63
Mining & Quarrying	Profitability	Return on Equity	4.78	4.98	5.22	5.67	5.97	5.32
Manufacturing	Profitability	Return on Equity	5.2	5.6	5.92	6.03	6.79	5.91
Building & Construction	Profitability	Return on Equity	3.9	4.6	4.89	4.91	5.29	4.72
Wholesales & Retail	Profitability	Return on Equity	4.67	4.78	4.92	5.04	5.65	5.01
Hotels & Restaurants	Profitability	Return on Equity	4.67	4.88	4.92	5.1	5.3	4.97
Financial Intermediation	Profitability	Return on Equity	3.65	3.77	4.01	4.21	4.8	4.09
Transport & Communication	Profitability	Return on Equity	3.77	3.9	4.17	4.53	5.02	4.28
Real Estate	Profitability	Return on Equity	4.16	4.69	5.2	4.23	4.78	4.61
Education	Profitability	Return on Equity	3.92	4.02	4.39	4.23	3.89	4.09
Health & Social Work	Profitability	Return on Equity	2.78	2.96	2.98	3.02	3.12	2.97
Social & Personal Services	Profitability	Return on Equity	3.85	3.91	4.11	4.45	4.32	4.13

APPENDIX V -Iterations for t-statistic & significance determination

Iterations	FAF ->				
	AS -> FP	CC -> FP	FP	SR -> FP	U -> FP
Sample 0	-0.196	0.168	-0.143	-0.456	0.223
Sample 1	-0.204	0.149	-0.202	-0.427	0.254
Sample 2	-0.213	0.201	-0.187	-0.407	0.224
Sample 3	-0.183	0.18	-0.166	-0.426	0.269
Sample 4	-0.203	0.197	-0.169	-0.414	0.244
Sample 5	-0.186	0.1	-0.159	-0.422	0.357
Sample 6	-0.179	0.163	-0.162	-0.446	0.261
Sample 7	-0.194	0.162	-0.144	-0.387	0.314
Sample 8	-0.21	0.139	-0.154	-0.415	0.323
Sample 9	-0.166	0.163	-0.187	-0.413	0.237
Sample 10	-0.171	0.175	-0.145	-0.395	0.301
Sample 11	-0.169	0.198	-0.181	-0.435	0.267
Sample 12	-0.243	0.131	-0.138	-0.361	0.315
Sample 13	-0.207	0.235	-0.134	-0.435	0.272
Sample 14	-0.199	0.197	-0.127	-0.406	0.277
Sample 15	-0.219	0.164	-0.179	-0.433	0.289
Sample 16	-0.196	0.134	-0.206	-0.382	0.284
Sample 17	-0.171	0.17	-0.202	-0.418	0.286
Sample 18	-0.192	0.123	-0.175	-0.366	0.361
Sample 19	-0.181	0.171	-0.141	-0.406	0.353
Sample 20	-0.17	0.145	-0.188	-0.416	0.281
Sample 21	-0.239	0.144	-0.212	-0.379	0.234
Sample 22	-0.19	0.19	-0.166	-0.376	0.316
Sample 23	-0.226	0.155	-0.215	-0.385	0.266
Sample 24	-0.182	0.175	-0.191	-0.369	0.306
Sample 25	-0.168	0.202	-0.185	-0.412	0.253
Sample 26	-0.167	0.218	-0.162	-0.428	0.282
Sample 27	-0.151	0.183	-0.177	-0.416	0.278
Sample 28	-0.166	0.149	-0.174	-0.386	0.295
Sample 29	-0.207	0.165	-0.19	-0.407	0.22
Sample 30	-0.187	0.206	-0.168	-0.4	0.239
Sample 31	-0.186	0.197	-0.188	-0.392	0.255
Sample 32	-0.144	0.146	-0.165	-0.392	0.337
Sample 33	-0.2	0.186	-0.168	-0.438	0.265
Sample 34	-0.184	0.136	-0.171	-0.369	0.339
Sample 35	-0.141	0.222	-0.174	-0.444	0.248
Sample 36	-0.195	0.181	-0.155	-0.38	0.289
Sample 37	-0.247	0.158	-0.198	-0.393	0.259
Sample 38	-0.18	0.123	-0.18	-0.424	0.322

Sample 39	-0.197	0.153	-0.131	-0.313	0.379
Sample 40	-0.185	0.242	-0.146	-0.442	0.249
Sample 41	-0.185	0.255	-0.119	-0.396	0.289
Sample 42	-0.152	0.18	-0.17	-0.381	0.317
Sample 43	-0.185	0.233	-0.179	-0.45	0.186
Sample 44	-0.217	0.22	-0.15	-0.425	0.245
Sample 45	-0.2	0.118	-0.211	-0.398	0.335
Sample 46	-0.181	0.166	-0.148	-0.359	0.3
Sample 47	-0.187	0.185	-0.154	-0.416	0.284
Sample 48	-0.189	0.149	-0.195	-0.391	0.284
Sample 49	-0.147	0.146	-0.161	-0.345	0.362
Sample 50	-0.208	0.151	-0.138	-0.41	0.276
Sample 51	-0.249	0.167	-0.134	-0.343	0.327
Sample 52	-0.195	0.164	-0.157	-0.437	0.293
Sample 53	-0.162	0.202	-0.173	-0.391	0.283
Sample 54	-0.181	0.179	-0.158	-0.412	0.282
Sample 55	-0.229	0.176	-0.147	-0.363	0.327
Sample 56	-0.225	0.153	-0.185	-0.39	0.251
Sample 57	-0.178	0.14	-0.157	-0.417	0.31
Sample 58	-0.2	0.133	-0.165	-0.37	0.281
Sample 59	-0.212	0.207	-0.178	-0.397	0.254
Sample 60	-0.268	0.19	-0.145	-0.391	0.269
Sample 61	-0.225	0.121	-0.171	-0.431	0.283
Sample 62	-0.164	0.193	-0.159	-0.372	0.329
Sample 63	-0.16	0.182	-0.202	-0.399	0.317
Sample 64	-0.194	0.182	-0.181	-0.404	0.259
Sample 65	-0.191	0.189	-0.163	-0.416	0.264
Sample 66	-0.228	0.167	-0.167	-0.406	0.273
Sample 67	-0.153	0.159	-0.159	-0.387	0.345
Sample 68	-0.169	0.158	-0.154	-0.408	0.275
Sample 69	-0.195	0.114	-0.172	-0.433	0.28
Sample 70	-0.219	0.082	-0.174	-0.339	0.377
Sample 71	-0.187	0.153	-0.197	-0.371	0.314
Sample 72	-0.211	0.141	-0.209	-0.415	0.268
Sample 73	-0.19	0.132	-0.177	-0.366	0.334
Sample 74	-0.211	0.09	-0.218	-0.367	0.306
Sample 75	-0.154	0.215	-0.194	-0.416	0.259
Sample 76	-0.209	0.128	-0.165	-0.429	0.298
Sample 77	-0.217	0.181	-0.197	-0.382	0.263
Sample 78	-0.209	0.179	-0.186	-0.392	0.291
Sample 79	-0.203	0.169	-0.188	-0.405	0.279
Sample 80	-0.154	0.237	-0.22	-0.423	0.251
Sample 81	-0.136	0.211	-0.143	-0.414	0.286

Sample 82	-0.193	0.193	-0.163	-0.343	0.334
Sample 83	-0.216	0.197	-0.203	-0.44	0.241
Sample 84	-0.184	0.203	-0.167	-0.42	0.268
Sample 85	-0.176	0.205	-0.154	-0.402	0.304
Sample 86	-0.196	0.225	-0.174	-0.384	0.277
Sample 87	-0.174	0.18	-0.163	-0.39	0.27
Sample 88	-0.146	0.16	-0.163	-0.365	0.307
Sample 89	-0.158	0.124	-0.197	-0.395	0.308
Sample 90	-0.224	0.178	-0.165	-0.364	0.293
Sample 91	-0.194	0.101	-0.209	-0.419	0.297
Sample 92	-0.2	0.159	-0.214	-0.393	0.276
Sample 93	-0.214	0.182	-0.141	-0.402	0.278
Sample 94	-0.214	0.18	-0.174	-0.437	0.183
Sample 95	-0.158	0.124	-0.163	-0.4	0.313
Sample 96	-0.226	0.177	-0.139	-0.422	0.302
Sample 97	-0.192	0.166	-0.187	-0.388	0.312
Sample 98	-0.177	0.198	-0.168	-0.387	0.31
Sample 99	-0.175	0.16	-0.137	-0.406	0.321
Sample 100	-0.23	0.145	-0.158	-0.407	0.29
Sample 101	-0.178	0.16	-0.148	-0.381	0.351
Sample 102	-0.181	0.172	-0.198	-0.406	0.276
Sample 103	-0.174	0.195	-0.164	-0.431	0.269
Sample 104	-0.165	0.21	-0.148	-0.436	0.275
Sample 105	-0.212	0.224	-0.177	-0.399	0.223
Sample 106	-0.225	0.208	-0.186	-0.356	0.269
Sample 107	-0.171	0.168	-0.195	-0.4	0.254
Sample 108	-0.141	0.242	-0.166	-0.403	0.255
Sample 109	-0.256	0.14	-0.23	-0.376	0.253
Sample 110	-0.233	0.133	-0.147	-0.391	0.33
Sample 111	-0.223	0.118	-0.173	-0.402	0.338
Sample 112	-0.213	0.172	-0.16	-0.433	0.268
Sample 113	-0.188	0.183	-0.175	-0.36	0.328
Sample 114	-0.215	0.177	-0.201	-0.429	0.19
Sample 115	-0.208	0.18	-0.141	-0.405	0.233
Sample 116	-0.154	0.174	-0.175	-0.372	0.313
Sample 117	-0.244	0.17	-0.2	-0.399	0.261
Sample 118	-0.225	0.135	-0.131	-0.413	0.329
Sample 119	-0.208	0.19	-0.156	-0.406	0.284
Sample 120	-0.121	0.132	-0.248	-0.39	0.291
Sample 121	-0.181	0.184	-0.207	-0.434	0.257
Sample 122	-0.238	0.162	-0.159	-0.39	0.269
Sample 123	-0.227	0.171	-0.158	-0.397	0.272
Sample 124	-0.223	0.25	-0.156	-0.368	0.226

Sample 125	-0.199	0.125	-0.23	-0.426	0.273
Sample 126	-0.182	0.175	-0.146	-0.4	0.301
Sample 127	-0.225	0.227	-0.16	-0.36	0.286
Sample 128	-0.188	0.21	-0.132	-0.386	0.304
Sample 129	-0.216	0.205	-0.18	-0.407	0.264
Sample 130	-0.217	0.196	-0.137	-0.336	0.333
Sample 131	-0.159	0.14	-0.191	-0.379	0.346
Sample 132	-0.198	0.142	-0.169	-0.409	0.331
Sample 133	-0.186	0.143	-0.209	-0.348	0.345
Sample 134	-0.192	0.218	-0.166	-0.463	0.189
Sample 135	-0.175	0.217	-0.2	-0.4	0.278
Sample 136	-0.192	0.241	-0.145	-0.393	0.244
Sample 137	-0.192	0.188	-0.155	-0.428	0.24
Sample 138	-0.168	0.217	-0.162	-0.387	0.274
Sample 139	-0.196	0.101	-0.194	-0.415	0.256
Sample 140	-0.179	0.126	-0.127	-0.371	0.343
Sample 141	-0.141	0.24	-0.148	-0.413	0.295
Sample 142	-0.229	0.085	-0.158	-0.404	0.328
Sample 143	-0.172	0.158	-0.183	-0.398	0.311
Sample 144	-0.193	0.101	-0.181	-0.422	0.298
Sample 145	-0.208	0.194	-0.164	-0.416	0.276
Sample 146	-0.217	0.177	-0.167	-0.416	0.278
Sample 147	-0.195	0.2	-0.173	-0.417	0.283
Sample 148	-0.189	0.195	-0.134	-0.432	0.231
Sample 149	-0.203	0.178	-0.165	-0.396	0.31
Sample 150	-0.184	0.125	-0.151	-0.406	0.319
Sample 151	-0.225	0.133	-0.154	-0.389	0.305
Sample 152	-0.171	0.198	-0.191	-0.408	0.224
Sample 153	-0.165	0.171	-0.179	-0.425	0.308
Sample 154	-0.153	0.145	-0.221	-0.436	0.259
Sample 155	-0.128	0.187	-0.179	-0.399	0.332
Sample 156	-0.195	0.135	-0.197	-0.338	0.34
Sample 157	-0.237	0.214	-0.181	-0.393	0.234
Sample 158	-0.21	0.149	-0.147	-0.372	0.319
Sample 159	-0.121	0.169	-0.196	-0.377	0.36
Sample 160	-0.152	0.17	-0.173	-0.397	0.254
Sample 161	-0.144	0.185	-0.188	-0.428	0.296
Sample 162	-0.153	0.171	-0.18	-0.36	0.308
Sample 163	-0.166	0.15	-0.197	-0.406	0.263
Sample 164	-0.214	0.114	-0.175	-0.39	0.35
Sample 165	-0.196	0.189	-0.168	-0.415	0.267
Sample 166	-0.208	0.152	-0.151	-0.427	0.296
Sample 167	-0.171	0.196	-0.175	-0.405	0.299

Sample 168	-0.17	0.189	-0.166	-0.419	0.261
Sample 169	-0.203	0.222	-0.159	-0.376	0.27
Sample 170	-0.173	0.139	-0.195	-0.379	0.321
Sample 171	-0.183	0.201	-0.119	-0.423	0.277
Sample 172	-0.15	0.166	-0.192	-0.373	0.362
Sample 173	-0.189	0.197	-0.171	-0.411	0.296
Sample 174	-0.237	0.137	-0.168	-0.404	0.267
Sample 175	-0.193	0.15	-0.166	-0.439	0.266
Sample 176	-0.213	0.188	-0.196	-0.386	0.275
Sample 177	-0.116	0.166	-0.197	-0.459	0.261
Sample 178	-0.2	0.172	-0.153	-0.415	0.291
Sample 179	-0.184	0.089	-0.205	-0.416	0.312
Sample 180	-0.197	0.135	-0.16	-0.39	0.289
Sample 181	-0.209	0.097	-0.149	-0.429	0.301
Sample 182	-0.213	0.12	-0.206	-0.431	0.237
Sample 183	-0.198	0.177	-0.13	-0.447	0.282
Sample 184	-0.16	0.204	-0.184	-0.432	0.301
Sample 185	-0.215	0.166	-0.199	-0.389	0.29
Sample 186	-0.191	0.084	-0.199	-0.401	0.338
Sample 187	-0.211	0.127	-0.148	-0.397	0.285
Sample 188	-0.187	0.179	-0.175	-0.435	0.266
Sample 189	-0.199	0.187	-0.175	-0.397	0.304
Sample 190	-0.204	0.164	-0.159	-0.427	0.238
Sample 191	-0.194	0.206	-0.162	-0.416	0.258
Sample 192	-0.189	0.207	-0.165	-0.4	0.266
Sample 193	-0.193	0.165	-0.198	-0.422	0.272
Sample 194	-0.172	0.224	-0.165	-0.387	0.285
Sample 195	-0.212	0.215	-0.173	-0.439	0.198
Sample 196	-0.2	0.18	-0.188	-0.357	0.266
Sample 197	-0.172	0.176	-0.174	-0.457	0.247
Sample 198	-0.232	0.123	-0.16	-0.442	0.271
Sample 199	-0.201	0.161	-0.157	-0.456	0.239
Sample 200	-0.187	0.177	-0.185	-0.355	0.319
Sample 201	-0.22	0.111	-0.178	-0.373	0.326
Sample 202	-0.15	0.2	-0.186	-0.444	0.244
Sample 203	-0.178	0.236	-0.149	-0.467	0.227
Sample 204	-0.213	0.143	-0.187	-0.398	0.266
Sample 205	-0.212	0.156	-0.141	-0.395	0.309
Sample 206	-0.198	0.17	-0.127	-0.434	0.322
Sample 207	-0.197	0.155	-0.206	-0.404	0.289
Sample 208	-0.145	0.19	-0.204	-0.41	0.291
Sample 209	-0.213	0.174	-0.156	-0.377	0.311
Sample 210	-0.164	0.188	-0.164	-0.372	0.31

Sample 211	-0.175	0.136	-0.181	-0.377	0.333
Sample 212	-0.144	0.214	-0.22	-0.421	0.25
Sample 213	-0.185	0.161	-0.141	-0.416	0.291
Sample 214	-0.216	0.205	-0.177	-0.386	0.24
Sample 215	-0.202	0.164	-0.132	-0.443	0.271
Sample 216	-0.202	0.244	-0.17	-0.377	0.228
Sample 217	-0.176	0.229	-0.179	-0.447	0.245
Sample 218	-0.16	0.195	-0.191	-0.399	0.318
Sample 219	-0.194	0.152	-0.178	-0.382	0.29
Sample 220	-0.178	0.183	-0.169	-0.377	0.313
Sample 221	-0.197	0.178	-0.155	-0.398	0.307
Sample 222	-0.17	0.198	-0.143	-0.454	0.229
Sample 223	-0.157	0.159	-0.139	-0.44	0.28
Sample 224	-0.182	0.168	-0.164	-0.442	0.271
Sample 225	-0.162	0.205	-0.202	-0.408	0.279
Sample 226	-0.138	0.159	-0.169	-0.467	0.284
Sample 227	-0.21	0.13	-0.211	-0.411	0.267
Sample 228	-0.172	0.079	-0.187	-0.394	0.328
Sample 229	-0.238	0.125	-0.156	-0.373	0.321
Sample 230	-0.185	0.177	-0.182	-0.421	0.245
Sample 231	-0.195	0.196	-0.142	-0.434	0.248
Sample 232	-0.221	0.14	-0.147	-0.441	0.249
Sample 233	-0.245	0.067	-0.159	-0.428	0.35
Sample 234	-0.157	0.199	-0.165	-0.432	0.267
Sample 235	-0.187	0.206	-0.172	-0.4	0.23
Sample 236	-0.217	0.123	-0.155	-0.38	0.289
Sample 237	-0.215	0.093	-0.201	-0.438	0.25
Sample 238	-0.205	0.115	-0.184	-0.415	0.269
Sample 239	-0.176	0.131	-0.164	-0.39	0.348
Sample 240	-0.188	0.236	-0.129	-0.421	0.285
Sample 241	-0.225	0.216	-0.169	-0.371	0.283
Sample 242	-0.241	0.137	-0.141	-0.362	0.32
Sample 243	-0.151	0.131	-0.199	-0.37	0.325
Sample 244	-0.16	0.118	-0.214	-0.404	0.338
Sample 245	-0.18	0.103	-0.161	-0.36	0.367
Sample 246	-0.154	0.252	-0.148	-0.391	0.3
Sample 247	-0.163	0.232	-0.178	-0.364	0.31
Sample 248	-0.181	0.178	-0.218	-0.406	0.265
Sample 249	-0.209	0.118	-0.123	-0.375	0.362
Sample 250	-0.221	0.105	-0.2	-0.417	0.257
Sample 251	-0.243	0.148	-0.179	-0.403	0.272
Sample 252	-0.203	0.161	-0.183	-0.359	0.297
Sample 253	-0.201	0.173	-0.132	-0.384	0.297

Sample 254	-0.226	0.117	-0.165	-0.371	0.297
Sample 255	-0.168	0.173	-0.17	-0.447	0.277
Sample 256	-0.176	0.108	-0.243	-0.392	0.287
Sample 257	-0.162	0.189	-0.137	-0.413	0.302
Sample 258	-0.244	0.115	-0.2	-0.457	0.244
Sample 259	-0.206	0.128	-0.134	-0.401	0.353
Sample 260	-0.191	0.131	-0.164	-0.389	0.322
Sample 261	-0.172	0.168	-0.184	-0.392	0.303
Sample 262	-0.196	0.195	-0.152	-0.403	0.303
Sample 263	-0.175	0.204	-0.182	-0.458	0.215
Sample 264	-0.218	0.129	-0.162	-0.421	0.278
Sample 265	-0.208	0.213	-0.166	-0.43	0.264
Sample 266	-0.209	0.193	-0.163	-0.401	0.27
Sample 267	-0.203	0.188	-0.164	-0.446	0.265
Sample 268	-0.176	0.156	-0.195	-0.401	0.322
Sample 269	-0.172	0.18	-0.14	-0.391	0.295
Sample 270	-0.198	0.154	-0.161	-0.38	0.295
Sample 271	-0.224	0.132	-0.15	-0.398	0.272
Sample 272	-0.172	0.177	-0.125	-0.449	0.269
Sample 273	-0.256	0.185	-0.174	-0.39	0.266
Sample 274	-0.205	0.201	-0.177	-0.426	0.239
Sample 275	-0.187	0.173	-0.177	-0.422	0.271
Sample 276	-0.189	0.162	-0.182	-0.437	0.318
Sample 277	-0.188	0.144	-0.195	-0.344	0.31
Sample 278	-0.229	0.161	-0.18	-0.355	0.301
Sample 279	-0.175	0.254	-0.175	-0.364	0.289
Sample 280	-0.198	0.247	-0.216	-0.428	0.219
Sample 281	-0.202	0.172	-0.191	-0.432	0.229
Sample 282	-0.177	0.194	-0.202	-0.431	0.213
Sample 283	-0.201	0.184	-0.185	-0.406	0.315
Sample 284	-0.152	0.228	-0.192	-0.421	0.237
Sample 285	-0.212	0.19	-0.185	-0.408	0.242
Sample 286	-0.209	0.205	-0.188	-0.388	0.264
Sample 287	-0.191	0.171	-0.145	-0.412	0.28
Sample 288	-0.205	0.187	-0.163	-0.385	0.286
Sample 289	-0.171	0.152	-0.179	-0.405	0.279
Sample 290	-0.206	0.162	-0.163	-0.439	0.305
Sample 291	-0.179	0.139	-0.175	-0.442	0.259
Sample 292	-0.207	0.171	-0.166	-0.4	0.289
Sample 293	-0.172	0.195	-0.208	-0.405	0.264
Sample 294	-0.228	0.153	-0.164	-0.347	0.263
Sample 295	-0.178	0.213	-0.171	-0.408	0.259
Sample 296	-0.241	0.191	-0.159	-0.372	0.28

Sample 297	-0.216	0.154	-0.171	-0.412	0.261
Sample 298	-0.19	0.14	-0.163	-0.39	0.339
Sample 299	-0.198	0.184	-0.165	-0.388	0.295
Sample 300	-0.215	0.178	-0.158	-0.419	0.254
Sample 301	-0.216	0.138	-0.171	-0.413	0.257
Sample 302	-0.222	0.159	-0.157	-0.377	0.311
Sample 303	-0.227	0.078	-0.183	-0.38	0.331
Sample 304	-0.142	0.234	-0.185	-0.396	0.276
Sample 305	-0.191	0.192	-0.175	-0.403	0.296
Sample 306	-0.249	0.161	-0.153	-0.355	0.286
Sample 307	-0.168	0.216	-0.166	-0.391	0.259
Sample 308	-0.191	0.213	-0.197	-0.391	0.26
Sample 309	-0.263	0.148	-0.155	-0.368	0.264
Sample 310	-0.18	0.117	-0.235	-0.385	0.308
Sample 311	-0.211	0.229	-0.193	-0.412	0.228
Sample 312	-0.196	0.162	-0.188	-0.44	0.276
Sample 313	-0.218	0.116	-0.181	-0.36	0.313
Sample 314	-0.251	0.103	-0.15	-0.411	0.268
Sample 315	-0.182	0.17	-0.163	-0.353	0.315
Sample 316	-0.092	0.259	-0.152	-0.419	0.315
Sample 317	-0.209	0.193	-0.197	-0.413	0.222
Sample 318	-0.173	0.215	-0.172	-0.369	0.285
Sample 319	-0.155	0.199	-0.209	-0.433	0.255
Sample 320	-0.215	0.125	-0.185	-0.467	0.275
Sample 321	-0.222	0.088	-0.187	-0.406	0.296
Sample 322	-0.187	0.14	-0.155	-0.344	0.368
Sample 323	-0.213	0.187	-0.148	-0.411	0.285
Sample 324	-0.203	0.164	-0.183	-0.486	0.266
Sample 325	-0.149	0.152	-0.171	-0.421	0.302
Sample 326	-0.182	0.22	-0.17	-0.362	0.274
Sample 327	-0.212	0.097	-0.184	-0.355	0.313
Sample 328	-0.156	0.109	-0.212	-0.421	0.304
Sample 329	-0.149	0.172	-0.144	-0.388	0.324
Sample 330	-0.265	0.158	-0.174	-0.392	0.258
Sample 331	-0.217	0.143	-0.171	-0.353	0.341
Sample 332	-0.208	0.144	-0.128	-0.4	0.339
Sample 333	-0.174	0.189	-0.157	-0.391	0.324
Sample 334	-0.16	0.165	-0.145	-0.404	0.32
Sample 335	-0.145	0.204	-0.208	-0.429	0.285
Sample 336	-0.198	0.199	-0.176	-0.399	0.306
Sample 337	-0.178	0.175	-0.171	-0.408	0.277
Sample 338	-0.175	0.173	-0.172	-0.408	0.278
Sample 339	-0.156	0.181	-0.169	-0.4	0.297

Sample 340	-0.234	0.137	-0.146	-0.397	0.281
Sample 341	-0.232	0.176	-0.159	-0.431	0.25
Sample 342	-0.198	0.125	-0.17	-0.391	0.309
Sample 343	-0.23	0.153	-0.181	-0.384	0.28
Sample 344	-0.184	0.113	-0.194	-0.427	0.267
Sample 345	-0.188	0.146	-0.154	-0.424	0.268
Sample 346	-0.186	0.197	-0.152	-0.386	0.285
Sample 347	-0.159	0.203	-0.14	-0.44	0.269
Sample 348	-0.21	0.111	-0.14	-0.467	0.272
Sample 349	-0.201	0.15	-0.187	-0.473	0.214
Sample 350	-0.205	0.153	-0.149	-0.415	0.318
Sample 351	-0.197	0.209	-0.179	-0.41	0.246
Sample 352	-0.169	0.198	-0.17	-0.397	0.28
Sample 353	-0.219	0.117	-0.2	-0.363	0.309
Sample 354	-0.2	0.191	-0.174	-0.412	0.273
Sample 355	-0.174	0.245	-0.156	-0.424	0.233
Sample 356	-0.229	0.137	-0.178	-0.424	0.253
Sample 357	-0.216	0.172	-0.164	-0.414	0.314
Sample 358	-0.208	0.153	-0.179	-0.393	0.261
Sample 359	-0.188	0.107	-0.174	-0.457	0.263
Sample 360	-0.212	0.146	-0.15	-0.39	0.322
Sample 361	-0.21	0.168	-0.171	-0.408	0.278
Sample 362	-0.189	0.129	-0.168	-0.433	0.256
Sample 363	-0.216	0.156	-0.159	-0.427	0.29
Sample 364	-0.199	0.158	-0.182	-0.394	0.258
Sample 365	-0.156	0.172	-0.179	-0.392	0.321
Sample 366	-0.184	0.223	-0.165	-0.466	0.248
Sample 367	-0.125	0.225	-0.211	-0.412	0.283
Sample 368	-0.169	0.145	-0.154	-0.364	0.326
Sample 369	-0.177	0.145	-0.197	-0.41	0.299
Sample 370	-0.187	0.17	-0.17	-0.407	0.307
Sample 371	-0.203	0.128	-0.154	-0.369	0.37
Sample 372	-0.167	0.127	-0.165	-0.396	0.331
Sample 373	-0.199	0.146	-0.164	-0.424	0.271
Sample 374	-0.221	0.108	-0.204	-0.399	0.268
Sample 375	-0.182	0.172	-0.148	-0.41	0.313
Sample 376	-0.172	0.159	-0.14	-0.413	0.308
Sample 377	-0.213	0.149	-0.156	-0.382	0.328
Sample 378	-0.197	0.199	-0.186	-0.436	0.234
Sample 379	-0.166	0.124	-0.165	-0.396	0.283
Sample 380	-0.198	0.155	-0.182	-0.402	0.314
Sample 381	-0.149	0.218	-0.155	-0.389	0.292
Sample 382	-0.188	0.211	-0.179	-0.419	0.237

Sample 383	-0.197	0.246	-0.141	-0.37	0.281
Sample 384	-0.21	0.205	-0.16	-0.455	0.244
Sample 385	-0.169	0.229	-0.191	-0.431	0.242
Sample 386	-0.198	0.157	-0.206	-0.372	0.307
Sample 387	-0.232	0.106	-0.226	-0.359	0.282
Sample 388	-0.239	0.107	-0.175	-0.379	0.3
Sample 389	-0.195	0.16	-0.174	-0.402	0.302
Sample 390	-0.2	0.15	-0.174	-0.378	0.282
Sample 391	-0.185	0.164	-0.167	-0.4	0.273
Sample 392	-0.119	0.211	-0.164	-0.422	0.269
Sample 393	-0.189	0.218	-0.13	-0.418	0.285
Sample 394	-0.168	0.246	-0.194	-0.409	0.238
Sample 395	-0.146	0.124	-0.168	-0.404	0.307
Sample 396	-0.126	0.178	-0.204	-0.416	0.253
Sample 397	-0.199	0.16	-0.183	-0.362	0.299
Sample 398	-0.216	0.171	-0.167	-0.407	0.275
Sample 399	-0.219	0.182	-0.157	-0.409	0.226
Sample 400	-0.105	0.243	-0.196	-0.408	0.231
Sample 401	-0.238	0.191	-0.17	-0.437	0.208
Sample 402	-0.189	0.172	-0.163	-0.393	0.278
Sample 403	-0.184	0.188	-0.137	-0.399	0.284
Sample 404	-0.217	0.076	-0.158	-0.416	0.304
Sample 405	-0.224	0.123	-0.181	-0.393	0.329
Sample 406	-0.178	0.198	-0.149	-0.408	0.292
Sample 407	-0.204	0.15	-0.173	-0.396	0.3
Sample 408	-0.171	0.235	-0.152	-0.424	0.236
Sample 409	-0.144	0.126	-0.179	-0.406	0.341
Sample 410	-0.221	0.183	-0.169	-0.398	0.248
Sample 411	-0.154	0.213	-0.185	-0.363	0.298
Sample 412	-0.162	0.211	-0.153	-0.409	0.286
Sample 413	-0.201	0.145	-0.189	-0.414	0.28
Sample 414	-0.195	0.139	-0.184	-0.418	0.268
Sample 415	-0.169	0.231	-0.144	-0.392	0.26
Sample 416	-0.194	0.14	-0.185	-0.381	0.306
Sample 417	-0.158	0.184	-0.141	-0.358	0.32
Sample 418	-0.19	0.132	-0.163	-0.422	0.289
Sample 419	-0.201	0.169	-0.166	-0.428	0.279
Sample 420	-0.154	0.198	-0.193	-0.438	0.286
Sample 421	-0.162	0.072	-0.196	-0.407	0.319
Sample 422	-0.176	0.114	-0.188	-0.331	0.323
Sample 423	-0.176	0.18	-0.154	-0.36	0.334
Sample 424	-0.219	0.168	-0.157	-0.377	0.316
Sample 425	-0.192	0.13	-0.152	-0.406	0.317

Sample 426	-0.197	0.167	-0.18	-0.4	0.298
Sample 427	-0.187	0.136	-0.185	-0.426	0.273
Sample 428	-0.187	0.223	-0.149	-0.385	0.274
Sample 429	-0.217	0.166	-0.172	-0.413	0.269
Sample 430	-0.223	0.166	-0.151	-0.406	0.259
Sample 431	-0.203	0.129	-0.185	-0.394	0.263
Sample 432	-0.19	0.168	-0.17	-0.399	0.287
Sample 433	-0.235	0.162	-0.182	-0.438	0.272
Sample 434	-0.144	0.201	-0.176	-0.416	0.285
Sample 435	-0.201	0.173	-0.161	-0.412	0.23
Sample 436	-0.169	0.106	-0.159	-0.436	0.31
Sample 437	-0.185	0.182	-0.186	-0.402	0.285
Sample 438	-0.196	0.166	-0.19	-0.383	0.278
Sample 439	-0.229	0.157	-0.169	-0.378	0.285
Sample 440	-0.224	0.136	-0.143	-0.443	0.291
Sample 441	-0.184	0.118	-0.14	-0.393	0.336
Sample 442	-0.172	0.212	-0.18	-0.403	0.296
Sample 443	-0.15	0.199	-0.212	-0.434	0.235
Sample 444	-0.242	0.178	-0.203	-0.439	0.227
Sample 445	-0.184	0.19	-0.165	-0.464	0.238
Sample 446	-0.241	0.159	-0.147	-0.359	0.261
Sample 447	-0.187	0.153	-0.133	-0.385	0.317
Sample 448	-0.191	0.136	-0.173	-0.394	0.303
Sample 449	-0.154	0.242	-0.139	-0.396	0.263
Sample 450	-0.176	0.149	-0.178	-0.371	0.353
Sample 451	-0.204	0.157	-0.201	-0.388	0.285
Sample 452	-0.209	0.198	-0.167	-0.391	0.238
Sample 453	-0.214	0.172	-0.178	-0.352	0.29
Sample 454	-0.197	0.184	-0.14	-0.363	0.304
Sample 455	-0.162	0.203	-0.12	-0.363	0.344
Sample 456	-0.209	0.093	-0.219	-0.413	0.294
Sample 457	-0.181	0.191	-0.165	-0.428	0.256
Sample 458	-0.175	0.196	-0.183	-0.4	0.273
Sample 459	-0.144	0.155	-0.208	-0.41	0.246
Sample 460	-0.169	0.194	-0.15	-0.389	0.328
Sample 461	-0.167	0.228	-0.109	-0.43	0.286
Sample 462	-0.233	0.169	-0.192	-0.417	0.233
Sample 463	-0.198	0.096	-0.184	-0.376	0.329
Sample 464	-0.217	0.163	-0.121	-0.307	0.376
Sample 465	-0.159	0.205	-0.176	-0.342	0.303
Sample 466	-0.2	0.134	-0.167	-0.42	0.297
Sample 467	-0.227	0.144	-0.16	-0.418	0.298
Sample 468	-0.154	0.199	-0.161	-0.355	0.304

Sample 469	-0.191	0.161	-0.12	-0.351	0.349
Sample 470	-0.22	0.138	-0.152	-0.419	0.292
Sample 471	-0.15	0.172	-0.224	-0.398	0.279
Sample 472	-0.2	0.203	-0.149	-0.39	0.283
Sample 473	-0.198	0.154	-0.183	-0.352	0.292
Sample 474	-0.207	0.133	-0.179	-0.428	0.259
Sample 475	-0.186	0.122	-0.201	-0.426	0.28
Sample 476	-0.201	0.158	-0.161	-0.385	0.279
Sample 477	-0.2	0.21	-0.175	-0.401	0.243
Sample 478	-0.183	0.164	-0.192	-0.48	0.193
Sample 479	-0.179	0.129	-0.187	-0.398	0.297
Sample 480	-0.186	0.229	-0.182	-0.421	0.261
Sample 481	-0.201	0.137	-0.164	-0.362	0.323
Sample 482	-0.17	0.167	-0.17	-0.415	0.306
Sample 483	-0.179	0.162	-0.109	-0.341	0.371
Sample 484	-0.184	0.136	-0.19	-0.409	0.277
Sample 485	-0.211	0.208	-0.184	-0.409	0.268
Sample 486	-0.162	0.13	-0.183	-0.372	0.332
Sample 487	-0.213	0.171	-0.121	-0.394	0.307
Sample 488	-0.166	0.174	-0.171	-0.435	0.314
Sample 489	-0.219	0.182	-0.155	-0.444	0.284
Sample 490	-0.174	0.157	-0.208	-0.414	0.287
Sample 491	-0.173	0.235	-0.163	-0.432	0.229
Sample 492	-0.164	0.182	-0.183	-0.416	0.272
Sample 493	-0.261	0.208	-0.132	-0.423	0.254
Sample 494	-0.153	0.159	-0.158	-0.398	0.333
Sample 495	-0.186	0.185	-0.149	-0.381	0.319
Sample 496	-0.179	0.16	-0.185	-0.416	0.28
Sample 497	-0.191	0.157	-0.13	-0.375	0.365
Sample 498	-0.201	0.172	-0.2	-0.387	0.265
Sample 499	-0.141	0.197	-0.16	-0.405	0.315

APPENDIX VI –Sample Selection Procedure

a) Industry Selection based on the first to third in Southern Nigeria Federation

STATE	GEO-POLITICAL ZONE	AGRIC. FORESTRY & FISHING	MINING & QUARRYING	MANUFACTURING	BUILDING & CONSTRUCTION	WHOLESALE & RETAIL	HOTELS & RESTAURANTS	TRANSPORT & COMMUNICATION	FINANCIAL INTERMEDIATION	REAL ESTATE	EDUCATION	HEALTH & SOCIAL WORK	OTHER COMMUNITY, SOCIAL & PERSONAL SERVICE	TOTAL
ANAMBRA	SE											188		188
DELTA	SS								158					158
EBONYI	SE		13											13
EDO	SS		56				126		158					340
ENUGU	SE	50												50
LAGOS	SW	72		1195	36	545	293	71	335	200	452	526	128	3853
OYO	SW			272		294		54	177	110	117	200	63	1287
RIVERS	SS				18									18
TOTAL		122	69	1467	54	839	419	125	828	310	569	914	191	5907

Source: NBS-SMEDAN, 2010

b) Industry Selection based on the first to third in all the 36 states of Nigerian Federation

STATE	GEO-POLITICAL ZONE	AGRIC, FORESTRY & FISHING	MINING & QUARRYING	MANUFACTURING	BUILDING & CONSTRUCTION	WHOLESALE & RETAIL	HOTELS & RESTAURANTS	TRANSPORT & COMMUNICATION	FINANCIAL INTERMEDIATION	REAL ESTATE	EDUCATION	HEALTH & SOCIAL WORK	OTHER COMMUNITY, SOCIAL & PERSONAL SERVICE	TOTAL
ABIA	SE	41	2	177	5	162	26	16	0	31	33	50	10	553
ADAMAWA	NE	18	4	41	7	22	37	0	20	21	15	50	10	245
AKWA IBOM	SS	23	0	68	2	37	32	22	39	21	16	50	5	315
ANAMBRA	SE	27	0	251	0	88	63	27	39	24	67	188	15	789
BAUCHI	NE	14	4	81	5	103	79	54	59	7	134	49	26	615
BAYELSA	SS	0	0	14	5	7	37	11	0	0	50	0	10	134
BENUE	NC	9	0	81	2	74	37	44	39	21	83	0	0	390
BORNO	NE	5	0	61	2	29	11	0	0	3	17	25	15	168
CROSS RIVER	SS	9	5	81	2	59	63	11	39	10	17	88	10	394
DELTA	SS	41	0	109	2	74	79	16	158	14	50	100	5	648
EBONYI	SE	14	13	75	0	44	21	16	20	10	34	0	41	288
EDO	SS	14	56	224	9	125	126	49	158	38	17	138	20	974
EKITI	SW	14	0	95	0	59	11	0	20	7	50	25	5	286
ENUGU	SE	50	2	34	11	88	47	27	59	21	34	75	0	448
GOMBE	NE	32	23	54	9	74	16	5	20	17	0	0	5	255
IMO	SE	27	2	88	5	96	47	27	79	52	34	125	10	592
JIGAWA	NW	9	0	102	5	15	21	16	0	0	34	25	5	232
KADUNA	NW	44	2	272	29	287	116	33	177	76	34	200	26	1296

KANO	NW	45	9	978	11	427	121	60	0	45	17	50	66	1829
KATSINA	NW	32	0	143	7	132	47	71	20	17	67	0	10	546
KEBBI	NW	27	0	68	2	81	37	0	0	7	0	25	0	247
KOGI	NC	17	0	88	0	22	53	11	79	17	0	63	0	350
KWARA	NC	4	0	68	5	59	26	33	177	24	50	0	0	446
LAGOS	SW	72	9	1195	36	545	293	71	335	200	452	526	128	3862
NASSARAWA	NC	23	5	143	2	118	42	0	39	10	0	50	0	432
NIGER	NC	5	0	197	0	66	78	27	20	14	67	13	5	492
OGUN	SW	18	2	121	2	81	58	5	98	14	34	113	47	593
ONDO	SW	5	4	149	7	140	68	11	98	31	0	113	20	646
OSUN	SW	0	0	68	0	22	0	0	0	10	0	0	0	100
OYO	SW	32	7	272	20	294	121	54	177	110	117	200	63	1467
PLATEAU	NC	0	15	20	11	155	142	5	39	28	50	175	20	660
RIVERS	SS	5	0	156	18	140	95	27	138	10	34	100	15	738
SOKOTO	NW	18	4	170	11	191	37	14	59	9	34	50	3	600
TARABA	NE	12	0	75	0	22	16	5	20	0	34	63	0	247
YOBE	NE	14	0	34	0	22	26	16	39	3	0	0	6	160
ZAMFARA	NW	43	0	81	5	169	11	27	20	10	0	0	2	368
FCT	NC	5	0	75	2	81	132	27	39	55	34	38	24	512
TOTAL		768	168	6009	239	4210	2272	838	2323	987	1709	2767	627	22917

Source: NBS-SMEDAN, 2010