ENTREPRENEURIAL AWARENESS, ENTREPRENEURIAL SELF-EFFICACY, VIABLE BUSINESS PLAN AND SMEs' PERFORMANCE IN NORTH-WESTERN NIGERIA: THE MODERATING ROLE OF ACCESS TO FINANCE

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ABSTRACT

SMEs are essential to economic growth in Nigeria and are assumed to be a major source of employment, contributing significantly to the country's gross domestic product. The purpose of this study is to examine the moderating role of access to finance (AF) on the relationship between entrepreneurial awareness (EAW), entrepreneurial self-efficacy (ESE), viable business plan (VBP), and performance of small and medium enterprises (SMEs) in north-western Nigeria. Even though the relationships have generated significant scholarly interest, few studies have been conducted among the SMEs in Nigeria. The unit of analysis in this study was the organisation, which was the SMEs in Nigeria and the owners/managers of the SMEs were the participants. The study employed the cluster sampling technique and data were collected randomly using the drop-off and collect method. 559 questionnaires were distributed using the cross-sectional research design. After the screening, a total of 354 questionnaires were deemed completed and usable. SmartPLS 2.0 was employed to analyse the data. The findings of this study revealed that EAW and VBP had direct significant relationships with SMEs' performance in Nigeria while ESE was found not to be a predictor of performance. Of the moderating relationships, AF was found to moderate those between VBP and SME's performance but exerted no moderating effect on the relationships between EAW, ESE, and SMEs' performance. This study contributes to the extant literature on how AF moderates such strategic resources and SMEs' performance relationships. Finally, the study's implications for theory and practice, limitations, conclusions as well as the direction for future research are provided and discussed.

Keywords: entrepreneurial awareness, entrepreneurial self-efficacy, viable business plan, access to finance, SME's performance

ABSTRAK

Perusahaan Kecil dan Sederhana (PKS) adalah penting kepada pertumbuhan ekonomi di Nigeria. PKS adalah sumber utama pekerjaan kerana ia menyumbang dengan ketara kepada keluaran dalam negara kasar Nigeria. Tujuan kajian ini dilaksanakan adalah untuk mengkaji peranan penyederhana akses kewangan (AF) dalam hubungan antara kesedaran keusahawanan (EAW), keusahawananefikasi kendiri (ESE), pelan perniagaan yang berdaya maju (VBP), dan prestasi PKS di bahagian barat-laut Nigeria. Walaupun hubungantersebut telah menjana minat ilmiah yang ketara, namun tidak banyak kajian yang dijalankan dalam kalangan PKS di Nigeria. Data telah dikumpulkan daripada PKS yang beroperasi di bahagian barat laut Nigeria dengan menggunakan reka bentuk kajian keratan rentas. Unit analisis dalam kajian ini adalah organisasi, iaitu PKS di Nigeria dan pemilik atau pengurus PKS yang merupakan peserta kajian. Kajian ini menggunakan teknik persampelan berkelompok dan data dikumpulkan secara rawak dengan menggunakan kaedah *drop off* dan pengumpulan. Sebanyak 559 borang soal selidik telah diedarkan dengan menggunakan reka bentuk kajian keratan rentas. Selepas melalui proses tapisan, sebanyak 354 soal selidik dianggap lengkap dan sesuai digunakan untuk dianalisis dengan menggunakan Smart PLS 2.0 . Dapatan kajian ini menunjukkan bahawa EAW dan VBP mempunyai hubungan signifikan langsung dengan prestasi PKS di Nigeria, tetapi ESE tidak menjadi peramal prestasi. Manakala tentang hubungan penyederhanaan, AF didapati menyederhanakan hubungan antara VBP dan prestasi PKS, tetapi tidak menyederhanakan hubungan antara EAW, ESE, dan prestasi PKS. Kajian ini menyumbang kepada literatur sedia ada tentang peranan AF dalam menyederhanakan hubungan antara sumber strategik dan prestasi PKS. Akhir sekali, implikasi kajian bagi teori dan amalan, batasan, kesimpulan dan hala tuju kajian pada masa akan datang turut dibincangkan.

Kata kunci: Kesedaran keusahawanan, keusahawanan efikasi kendiri, pelan perniagaan yang berdaya maju, akses kewangan, prestasi PKS

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LIST OF ABBREVIATIONS

AF	Access to Finance
AVE	Average Variance Extracted
BSC	Balanced Scorecard
CBN	Central Bank of Nigeria
CMV	Common Method Variance
CR	Composite Reliability
EAW	Entrepreneurial Awareness
ESE	Entrepreneurial Self-efficacy
F^2	Effect Size
FCT	Federal Capital Territory
GDP	Gross Domestic Product
GoF	Goodness-of-Fit
INT	Interest Rate
MSMEs	Micro Small and Medium Enterprises
NBS	National Bureau of Statistics
NPC	National Population Commission
PLS	Partial Least Squares
POT	Pecking Order Theory
Q^2	Construct cross validated Redundancy
R^2	R-squared values
RBV	Resource Based View
SEM	Structural Equation Modelling
SmartPLS	SmartPLS Statistical Package
SMEDAN	Small and Medium Enterprises Development Agency of Nigeria
SMEs	Small and Medium Enterprises
SPSS	Statistical Package for Social Science
Sta.	Statistics
Std.	Standard Deviation
UK	United Kingdom

UNIDO	United Nation Industrial Development organization
US	United State of America
UUM	Universiti Utara Malaysia
VBP	Viable Business Plan
VIF	Variance Inflation Factor
VRIN	Valuable, Rare, Inimitable and Non-substitutable

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Small and medium enterprises (SMEs) have been extensively recognised as a catalyst supporting economic development. They assume a crucial role in the advancement of any country's economy (Babajide, 2011). Therefore, the SME sector serves as an instrument for economic recovery and is among the important areas of economic proliferation in both developed and developing countries (Herath & Mahmood, 2013, 2014; Oduyoye, Adebola, & Binuyo, 2013). SMEs constitute the greater part of business enterprises, are responsible for most job creation and are considered to be the major driving force and contributor to economic growth in most economies (Akingunola, 2011). Thus, the impact of SMEs on the growth and development of any country's economy cannot be over emphasised (Aminu & Shariff, 2014).

Nowadays, job creation is one of the areas of global attention, and it is an issue of serious concern that encourages and facilitates SME development around the globe (Oduyoye et al., 2013). Most of countries worldwide use the instrumentality of SMEs to combat unemployment and alleviate poverty, as well as to increase their Gross Domestic Product (GDP) (Babajide, 2011). Considering the potential and prospects of SMEs, there is an urgent need to improve the performance of the SME sector (Lawson, 2012).

Nowadays, the performance of SMEs is becoming an important area of concern among business researchers, practitioners, governments and international organisations (Akingunola, 2011). SMEs are considered the major contributors to exports and to the generation of employment, and are unarguably accountable for most of the business- related activities in many countries (Akingunola, 2011). Unfortunately, SMEs contribute only a small proportion of Nigeria's GDP (Bello, 2014; Gbandi & Amissah, 2014).

More recently, the available reports and statistics on SMEs' performance show that they constitute a dominant sector of most countries' economies, making a significant contribution to their GDP. For instance, the total number of registered SMEs in the UK is about 5.2 million, equivalent to 99.9% of the industrial capacity and contributing 49.8% to the GDP (Sheffield, 2013). In China, SMEs have massively supported GDP growth, which in record time rose to 60% representing 99.7% of the industrial capacity with a total of 42 million registered enterprises (Ayyagari, Demirgüç-Kunt, & Maksimovic, 2011). In Malaysia there are 645,136 registered SMEs, representing over 97.3% of the entire industrial capacity and contributing 33.1% to the GDP (Kee-Luen et al., 2013). Ghana's experience is equally revealing, with SMEs constituting some 92% with a total number of 4,170, contributing 70% to the country's GDP (Ndumanya, 2013). Similarly, in Kenya SMEs have significantly improved the economy with 1.3 million registered enterprises, dominating 90% of business and contributing 45% of the country's GDP (Katua, 2014).

However, in Nigeria, all these meaningful gains observed elsewhere are unfortunately elusive. Although there are currently 72,838 registered SMEs,

dominating 96% of the entire economy, their impact on GDP growth is very low compared to the aforementioned countries, at less than 10% (Bello, 2014; Gbandi & Amissah, 2014). Table 1.2 and Figure 1.1 present the number of SMEs and their contribution to GDP growth respectively.

Table 1.1
Summary of SMEs and their contribution to GDP

Country	**No of Registered SMEs**	**% of SMEs in the industrial unit**	**SMEs Contribution to GDP (%)**
UK	5.2 million	99.9%	49.8%
China	42 million	99.7%	60%
Malaysia	645,136	97.3%	33.1%
Ghana	4,170	92%	70%
Kenya	1.3 million	90%	45%
Nigeria	72,838	96%	< 10%

Source: *Sheffield (2013); Ayyagari, Demirgüç-Kunt, and Maksimovic (2011); Kee-Luen et al., (2013); Ndumanya (2013); Katua (2014); Bello (2014) and Gbandi and Amissah (2014)*

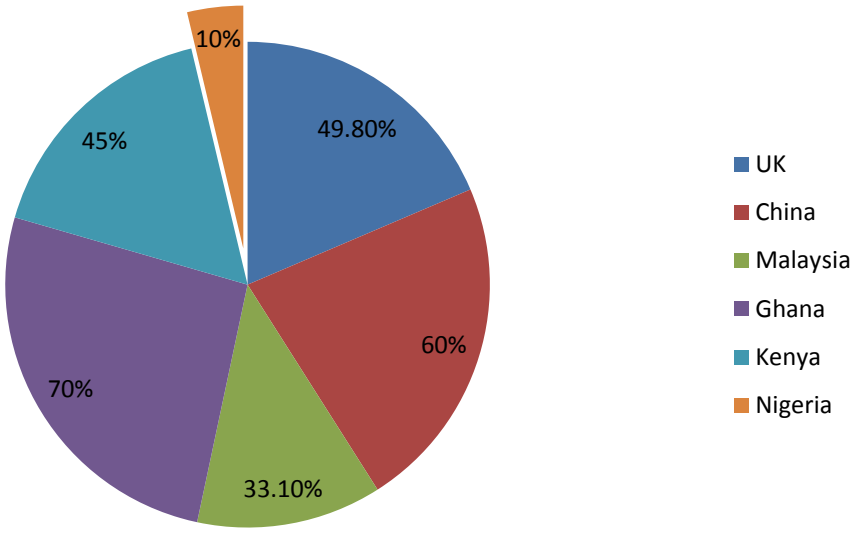

Figure 1.1
SMEs Contribution to GDP
Source: *Sheffield (2013); Ayyagari, Demirgüç-Kunt, and Maksimovic (2011); Kee-Luen et al., (2013); Ndumanya (2013); Katua (2014); Bello (2014) and Gbandi and Amissah (2014)*

This signifies that the contribution of SMEs to GDP in Nigeria is very low compared to that of Asian countries, which is about 40%, and of Europe and US, at 50% (Bello, 2014; Gbandi & Amissah, 2014). Thus, the poor performance of SMEs in Nigeria is a serious issue that affects all stakeholders, particularly as the country aims to be among the biggest 20 economies worldwide by the year 2020 (Thomas & Brycz, 2014). Indeed, to achieve this dream SMEs need to play a much more significant role (Bello, 2014) in Nigeria's economic development.

Against the backdrop of SMEs' contribution to the countries mentioned above, it is safe to assume that the Nigerian government is critically concerned about transforming, promoting and supporting SME Sector (Hassan & Olaniran, 2011). For instance, since 1970 the Nigerian government has introduced various schemes,

programmes, policies and institutions for promoting SMEs. These includes the Small Scale Industries Credit Guarantee Scheme (1971); Rural Banking Scheme (1977); Peoples Bank (1989); Bank of Industry (BOI); Nigerian Industrial Development Bank (NIDB); Small and Medium Enterprises Equity Investment Scheme (SMEEIS); Industrial Development Centre (IDC); Microfinance Bank Institutions (MFBIs) and finally, in 2004 Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) (Babajide, 2012; Babajide, 2011). In addition, the Nigerian government recently introduced other programmes such as the SUbsidy Re-investment and Empowerment Programme (Sure-P) in 2012; You Win in 2012; N-power in 2016 and Youth Entrepreneurship Support (YES) in 2016 (Akande, 2016; Enelamah, 2016; Odia & Odia, 2013).

Although Nigerian SMEs are motivated by the opportunities offered by these schemes (SMEDAN, 2012, 2013), their performance remains unimpressive for a number of reasons, including inadequate awareness or poor flow of information, poor funding, lack of entrepreneurial effectiveness, poor and weak linkage between different segments of operations in the sector, low operating capacities in terms of skills, knowledge and enterprises attitudes, inadequate viable business plans, insufficient government financial support and inadequate infrastructure (Mohammed & Obeleagu-Nzelibe, 2014; National Implementation Plan, 2010; Oluboba, 2002; SMEDAN, 2012).

Mohammed and Obeleagu-Nzelibe (2014) further identified the socio-political ambitions of some entrepreneurs as leading to the diversion of valuable funds and energy from business to social waste (i.e. the financial resources accessed for the

purpose of entrepreneurial activities are being diverted to personal use). The problem of bias against goods made in Nigeria is significant, while infrastructure problems range from shortage of water supply, inadequate transport systems and lack of electricity to poor solid waste management, meaning that businesses have to provide expensive parallel infrastructure. These points obviously incapacitate the performance of SMEs in Nigeria, and therefore occupy a central position as the fundamental factors forcing SMEs out of business (Lawson, 2012; Okpara, 2011; Oluboba, 2002; SMEDAN, 2012; Udenka, 2013). Hence, managers need to respond to strategies that would safeguard their businesses from collapse and give them a competitive advantage (Alawode, 2013).

Studies on entrepreneurial awareness (EAW) argue that, recognising and selecting the precise opportunity for both new and existing business enterprises are central to the qualities needed by efficacious entrepreneurs (Ardichvili, Cardozo, & Ray, 2003; Mot, 2011; Stevenson, Kearney, & Pendleton, 1985). Therefore, creating awareness of both new and existing entrepreneurial opportunities is important for any government wishing to support its entrepreneurs (Singh & Belwal, 2008). However, an empirical study revealed that many potential beneficiaries are unaware of programmes related to SMEs' financing and are therefore excluded (Gaiha & Thapa, 2006; Seghers, Manigart, & Vanacker, 2009). For instance, 85% of low-income entrepreneurs are excluded or unaware of the existence of such programmes, or how to exploit financial services (Gbandi & Amissah, 2014). The literature reveals that entrepreneurial awareness is essential in countries where entrepreneurship is neither publicised nor acclaimed (Swart, 2014), which is currently the situation in Nigeria.

Regarding entrepreneurial self-efficacy (ESE), empirical research studies support the importance of its role in determining business enterprise performance (Hmieleski & Baron, 2008; Hmieleski & Corbett, 2008). Consequently, entrepreneurs' belief in their own ability will affect their attempts establish new business enterprises or develop existing ones (Hmieleski & Baron, 2008). Therefore, lack of such capabilities is among the major factors responsible for the failure of a large number of SMEs (Martinez Campo, 2011). Thus, the performance of any enterprise revolves around entrepreneurial self-efficacy and entrepreneurs' competence in running the business activities in a dynamic environment (Oyeku *et al*., 2014).

Viable business plans (VBP) are another predictor of SMEs' performance. Planning is an important aspect of an organisation's processes, since it resolves numerous problems resulting from ambiguity and information irregularity existing in the discovery and exploitation of entrepreneurial opportunities (Delmar & Shane, 2003). Therefore, entrepreneurs need business planning to provide them with tools for managing their resources; lack of planning could lead to time consuming, and result in bottlenecks and missing information (Delmar & Shane, 2003).

Studies on access to finance (AF) have strongly demonstrated that it is an important determinant of SMEs performance (Batra, Kaufmann, & Stone, 2003; Mazanai & Fatoki, 2012; Kuzilwa, 2005; Gbandi & Amissah, 2014). Despite the fact that access to finance contributes about 25% to SMEs' success in Nigeria (Gbandi & Amissah, 2014; Ogujiuba, Ohuche, & Adenuga, 2004), it is also true that 77% have not been accessing the financial services available to them under different financing options

(Ayanda & Laraba, 2011; Oni, Paiko, & Ormin, 2012). Therefore, the trouble of financing SMEs is among the significant issue (I. M. Aminu & Shariff, 2014).

The presence of all these practical issues is motivation for conducting various studies on strategic (intangible) resources and SMEs' performance (Aminu & Mahmood, 2015; Ardichvili et al., 2003; Hmieleski & Baron, 2008; Hmieleski & Corbett, 2008; Shehu & Mahmood, 2014; Usman & Gulani, 2011). However, there is a lack of empirical studies that jointly link EAW, ESE and VBP as factors influencing SMEs' performance in a single study. Similarly, there are few empirical studies on the moderating role of access to finance on the relationship between EAW, ESE, VBP and SMEs' performance (Frank, Kessler, & Fink, 2010; Wiklund & Shepherd, 2005). Most of the studies have concentrated on individual rather than organisational performance (Ballout, 2009; Cherian & Jacob, 2013; Clare, Marková, Roth, & Morris, 2011; Day & Allen, 2004). For these reasons, this study intends to investigate the extent of the existing relationship between EAW, ESE and VBP on the one hand and SMEs' performance in Nigeria on the other hand, with the moderating role of AF.

1.2 Problem Statement

Despite the vital role played by SMEs in economic development, SMEs have been constrained by access to finance (AF) (Boateng & Boateng, 2014; Ibru, 2009; Kuzilwa, 2005; Olutunla & Obamuyi, 2008; SMEDAN, 2012). Absence of financial resources is the key factor behind SMEs' weak performance (Xavier, Kelly, Kew, Herrington, & Vorderwülbecke, 2013). Likewise, Nigerian SMEs are facing

numerous challenges, among which are the absence of awareness, poor entrepreneurial efficacy, lack of entrepreneurs' ability to access the required financial capital, as well as inadequate viable business plan (VBP) (Mohammed & Obeleagu-Nzelibe, 2014; SMEDAN, 2012). These lead to the high rate of enterprise mortality in their infancy. For instance, 60% of SMEs die at this stage in Nigeria (Harash, Al-Timimi, & Alsaadi, 2014), and 80% in an early stage of their lifecycle (Cocca & Alberti, 2010; Gbandi & Amissah, 2014).

The current performance of Nigerian SMEs is below expectation, as depicted in Table 1.2 and Figure 1.1 presented in previous section. It is contended that the poor performance is predicated on a number of issues, notably the variables already identified, entrepreneurial awareness (EAW), entrepreneurial self-efficacy (ESE) and viable business plan (VBP) with many more established in the literature as having far-reaching implications on SMEs positively or otherwise (Mohammed & Obeleagu-Nzelibe, 2014; Oluboba, 2002; SMEDAN, 2012; Udenka, 2013). The resource base view (RBV) of firms developed by Penrose (1959) recognises the importance of specific strategic resources for enhancing business performance (Tokuda, 2007). RBV further analyses the connection between a firm's internal qualities and its performance.

Considerable evidence has accumulated regarding the antecedents of SMEs performance. A comprehensive review of literature has identified several factors influencing SMEs performance. The most commonly investigated factors include entrepreneurial orientation (Fairoz, Hirobumi, & Tanaka, 2010; Kraus, Rigtering, Hughes, & Hosman, 2012; Moreno & Casillas, 2008; Tang, Tang, Marino, Zhang, &

Li, 2008), market orientation (Cano, Carrillat, & Jaramillo, 2004; Chao & Spillan, 2010; Gaur, Vasudevan, & Gaur, 2011; Mahmoud, 2011), dynamic capabilities (Lin & Wu, 2014; Protogerou, Caloghirou, & Lioukas, 2012; Wilden, Gudergan, Nielsen, & Lings, 2013), organizational learning (Jiménez-Jiménez & Sanz-Valle, 2011; Michna, 2009; Pérez López, Manuel Montes Peón, & José Vazquez Ordás, 2005), absorptive capacity (Flatten, Greve, & Brettel, 2011; Mustafa Kamal & Flanagan, 2012), and total quality management (Anderson & Sohal, 1999; Carlos Pinho, 2008; Kober, Subraamanniam, & Watson, 2012; Rahman, 2001), among others.

Although these factors have provided important insights into the determinants of SMEs performance, only a limited number of studies, however, investigated the idea that performance of SMEs may be influenced by EAW, ESE and VBP (see Table 2.3).

Specifically, empirical studies link the concept of awareness to performance/outcome across a variety of organisational settings, including the aviation industry (Endsley & Jones, 2001; Mica Endsley & Robertson, 2000); strategic marketing (Homburg, Klarmann, & Schmitt, 2010; Subhani & Osman, 2009; Subhani & Osman, 2011); insurance (Ajemunigbohun, Ademola, & Iyun, 2014); e-banking (Mansor, Shariff, & Manap, 2012); e-government (Mitrovic & Bytheway, 2009); health (Snider, 1980; Srivastava & Kumar, 2014; Wright, Taekman, & Endsley, 2004); ICT (Knol, 2004; Montiel-Campos, Solé-Parellada, Aguilar-Valenzuela, Berbegal-Mirabent, & Duran-Encalada, 2011); Islamic finance (Khan & Asghar, 2012; Khattak & Kashif-Ur-Rehman, 2010); and e-business (Panian & Spremić, 2004). But, very few consider the performance in SME sector.

However, the findings from these studies are mixed. In particular, some (Homburg *et al*., 2010; Janicik & Bartel, 2003; Johnson, 2005; Mansor *et al*., 2012; Montiel-Campos *et al*., 2011; Panian & Spremić, 2004; Thong, Chye, & Fong, 2013; Ugwu & Ezeani, 2012) reported a significant relationship between EAW and performance/outcome, while others studies found no significant relationship between them (Ajemunigbohun et al., 2014; Subhani & Osman, 2011; Thong *et al*., 2013; Ugwu & Ezeani, 2012).

Furthermore, while these few empirical studies are noteworthy in revealing that EAW is a potential determinant of SMEs performance, however, the interactive mechanisms that will enhance this relationship have not been adequately addressed in the literature. Therefore, this study extends the existing literature by examining EAW as a key factor influencing SMEs performance. Hence, it is theoretically imperative to pay greater attention to understanding the integrative mechanisms that straighten the relationship between EAW and SMEs' performance. To address this major imperial gap in the literature, the present study proposes to examine the underlying process through which this relationship will enhance by focusing on access to finance.

Likewise, review of the literature revealed that, in addition to EAW factor that is claimed to influence SMEs performance, this current study also ponders entrepreneurial self-efficacy (ESE) factor as predictor of SMEs' performance. Entrepreneurial self-efficacy is a valuable factor for explaining individual trait as research indicates that it plays a prominent role in determining an entrepreneur's choice, their level of effort, and determination toward entrepreneurial success (Chen

et al., 2004). The inability of entrepreneurs to react to available opportunities or access the required funding is another factor militating against the performance of SMEs in Nigeria (Oluboba, 2002; SMEDAN, 2012). This has encouraged many empirical studies among the scholars of self-efficacy, who have produced mixed findings. Many have reported a significant effect of ESE on performance (Anna, Chandler, Jansen, & Mero, 2000; Ballout, 2009; Baum & Locke, 2004; Drnovšek, Wincent, & Cardon, 2010; Herath & Mahmood, 2014; Hmieleski & Corbett, 2008; Torres & Watson, 2013; Trevelyan, 2011), while others found no significant impact (Herath & Mahmood, 2014; Hmieleski & Baron, 2008; Hmieleski & Corbett, 2008; Oyeku *et al*., 2014; Torres & Watson, 2013).

However, these aforementioned studies proposed either social cognitive theory or self-efficacy theory as an underpinning theory linking self-efficacy to performance. Specifically, these theories postulated that, when there is higher self-efficacy it will leads to an increase in performance/outcome. Despites the aforementioned theory and research, however, there is need for the mechanism that will explain why and when self-efficacy influence performance (Judeh, 2012). Therefore, this study proposed resource based view (RBV) and pecking order theory as underpinning theories, which provides avenue for this current study to focus on the access to finance (AF) to straighten the relationship between ESE and SMEs' performance.

However, with regards to VBP, most of the entrepreneurs neglect business planning, focusing instead on particular activities such as gathering of information, customer relationship planning, and marketing mix. These entrepreneurs need to know exactly what and how to plan as well as promoting the planning task (Gruber, 2007).

Numerous researchers have shown that there is a high rate of business failure due to poor planning (Delmar & Shane, 2003; Gartner & Liao, 2005; Shane & Delmar, 2004). Similarly, Norman, Douglas, and Thomas (2009) argue that lack of clearly defined business planning could lead to an insecure base on which to build and maintain a competitive edge in the marketplace. Some investigations reported that a positive relationship between business planning and business performance (for example, Brinckmann, Grichnik, & Kapsa, 2010; Delmar & Shane, 2003; Gartner & Liao, 2005; Hopkins & Hopkins, 1997; Kee-Luen et al., 2013; Lange *et al*., 2006; Shane & Delmar, 2004), while other studies showed the inverse relationships (Bracker, Keats, & Pearson, 1988; Gruber, 2007; Honig & Karlsson, 2004; Kraus, Harms, & Schwarz, 2006; Mazzarol, Reboud, & Soutar, 2009). A study by Risseeuw and Masurel (1994) found a weak relationship between planning and performance.

Given the inconsistent findings in previous studies, this study proposes the moderating role of access to finance in explaining how and when EAW, ESE and VBP influence SMEs' performance (Baron & Kenny, 1986; Frazier, Tix, & Barron, 2004). The specific grounds for the moderating relationship are informed by the significance of AF in several studies, stressing its unique role as a catalyst in enhancing SMEs' performance (Beck & Demirguc-Kunt, 2006; Demir & Caglayan, 2012; Fonseka, Yang, & Tian, 2013; Krishnan, Nandy, & Puri, 2014; Kuzilwa, 2005; Rahaman, 2011; Rogerson, 2008; Xavier et al., 2013; Zou, Chen, & Ghauri, 2010). Likewise, research has also found that entrepreneurial strategies require considerable financial resources to be successful (Wiklund & Shepherd, 2005), further highlighted the importance of integrative mechanisms, greater insight into performance might be gained through investigating the integrative mechanisms that ensure

complementarity among a firm's various aspects. This suggests a configurational approach, which involves the simultaneous and joint consideration of firm's strategic resources and access to finance, relying solely on the main effect relationship provides an incomplete understanding of small business performance.

However, not only does this study use AF as a moderator, but others (e.g. Frank, Kessler, & Fink, 2010; Wiklund & Shepherd, 2005), also employed it in investigating the relationship between entrepreneurial orientation and business performance. These studies emphasize the need for replication. This motivates the present study in examining the moderating role of AF on the relationship between a firm's strategic resources (EAW, ESE and VBP) and SMEs' performance in Nigeria.

From the related literature reviewed, there are few combined studies on EAW, ESE and VBP as major drivers of SMEs' performance. Similarly, base on the knowledge of the researcher no study that investigated the moderating effect of AF on the collective influence of EAW, ESE and VBP on SMEs' performance. In short, most of the previous studies aimed at investigating EAW, ESE and VBP in isolation, thereby neglecting the effect of their collective influence on SMEs' performance. Equally, most of the previous studies also concentrated on individual performance rather than organisational performance. Generally, few empirical studies have been made of EAW, ESE, and VBP on SMEs' performance, particularly in developing countries like Nigeria; most of the literature on EAW, ESE, VBP and performance describes research conducted in developed economies (Gruber, 2007; Hmieleski & Baron, 2008; Hmieleski & Corbett, 2008; Homburg *et al*., 2010; Pan, Sun, & Chow,

2011; Panian & Spremić, 2004). This indicates an important gap in the literature (see Table 2.3).

A final important issue is that most of the studies on SMEs' performance were conducted using established instruments (Aminu, 2015; Nambisan, Agarwal, & Tanniru, 1999; Perry, 2002; Stewart, 2003; Suliyanto & Rahab, 2012; Wilson, Kickul, & Marlino, 2007). Hence, replication of such studies is warranted, to enhance the validity and reliability of the constructs and to investigate the applicability of such constructs in a different geographical context. Therefore, the current study attempts to fill in these important gaps by examining the moderating role of access to finance on the relationship between EAW, ESE, VBP and SMEs' performance in north-western Nigeria.

1.3 Research Questions

Based on the above problem statement, this study attempts to answer the following questions:

1. Is entrepreneurial awareness significantly related to the performance of SMEs in North-western Nigeria?
2. Is entrepreneurial self-efficacy significantly related to the performance of SMEs in North-western Nigeria?
3. Is viable business plan significantly related to the performance of SMEs in North-western Nigeria?
4. Does access to finance moderate the relationship between entrepreneurial awareness and the performance of SMEs in North-western Nigeria?
5. Does access to finance moderate the relationship between entrepreneurial self-efficacy and the performance of SMEs in North-western Nigeria?
6. Does access to finance moderate the relationship between viable business plan and the performance of SMEs in North-western Nigeria?

1.4 Research Objectives

Based on these research questions, the goal of this study is to examine the relationship between EAW, ESE, and VBP on SMEs' performance in North-western Nigeria, with the moderating role of AF. Specifically, the study aims to achieve the following objectives:

1. To examine the significant relationship between entrepreneurial awareness and performance of SMEs in North-western Nigeria.
2. To examine the significant relationship between entrepreneurial self-efficacy and performance of SMEs in North-western Nigeria.
3. To examine the significant relationship between viable business plan and performance of SMEs in North-western Nigeria.
4. To examine the moderating role of access to finance on the relationship between entrepreneurial awareness and the performance of SMEs in North-western Nigeria.
5. To examine the moderating role of access to finance on the relationship between entrepreneurial self-efficacy and the performance of SMEs in North-western Nigeria.
6. To examine the moderating role of access to finance on the relationship between viable business plan and the performance of SMEs in North-western Nigeria.

1.5 Significance of the Study

As the study proposes to examine the moderating role of AF on the relationship between EAW, ESE, VBP and SMEs' performance, it contributes significantly to the pool of literature in various aspects. First, it uses the standard Resources-Based View (RBV) and Pecking Order Theory (POT) together, an unusual approach. Another contribution from the theoretical perspective the findings offer empirical evidence on the influence of strategic resources (EAW, ESE and VBP) on SMEs performance, thus enriching the existing literatures. Several studies have been carried out to

investigate various predictors of SMEs performance (Fairoz, Hirobumi, & Tanaka, 2010; Kraus, Rigtering, Hughes, & Hosman, 2012; Moreno & Casillas, 2008; Tang, Tang, Marino, Zhang, & Li, 2008; Cano, Carrillat, & Jaramillo, 2004; Chao & Spillan, 2010; Gaur, Vasudevan, & Gaur, 2011; Mahmoud, 2011; Lin & Wu, 2014; Protogerou, Caloghirou, & Lioukas, 2012; Flatten, Greve, & Brettel, 2011; Mustafa Kamal & Flanagan, 2012)

Although extant empirical studies have investigated various factors determining SMEs performance, yet, most of these studies centred on such variables as entrepreneurial orientation, market orientation, dynamic capabilities, organisational learning, absorptive capacity, total quality management. This implies that other strategic resources factors have been given less attention. Hence, this study fills the gap by incorporating other strategic resources determinants of SMEs performance (i.e. entrepreneurial awareness, entrepreneurial self-efficacy and viable business plan). Second, it also expands the current body of knowledge by utilising a moderating variable which has not been given extensive consideration in previous studies. Specifically, the study provides empirical proof on the link between EAW, ESE, VBP and SMEs performance in North-western Nigeria with the moderating role of AF. It was also explained that in the previous studies largely, descriptive statistics were used in analysis and very few used the next generation techniques like the structural equation modeling (SEM). The ability of this study to have used SmartPLS-SEM to empirically examine the interrelationships among the study variables is a significant contribution to knowledge.

At the same time, the study will make several practical and managerial contributions if applied by Nigerian entrepreneurs and policy makers in their process of overhauling the long underperforming SMEs sector. However, the level of understanding and awareness of the significance of research is minimal in Nigeria compared to developed countries, as a result of the misconception of Nigerian SME owner/managers on research; this will necessitate stimulating their awareness and inclusion in the survey; especially as they are unaware of the government initiatives for entrepreneurial activities (SMEDAN, 2012).

Therefore, the outcome of this study will benefit business practitioners, SME owner/managers as well as the government at all levels of policy making. It will contributes significantly to the growth and development of Nigerian SMEs, specifically in understanding and executing a strategy for sustaining competitive advantage and excellent performance, especially in Nigeria's turbulent business environment. It will also provide the economically active entrepreneurs with the awareness and knowledge to exploitat opportunities. It will help academics by improving their understanding and knowledge regarding the constructs under investigation in a Nigerian context.

The findings of this study will contribute if applied by the Nigerian entrepreneurs and policy makers in their process to revamp the long underperforming SME sector. First of all, it can contribute a lot to the development and growth of Nigerian SMEs especially toward conceiving of and implementing a strategy for sustaining competitive advantage and excellent performance.

Nigerian policy makers will be able to use the study's findings as a reliable mechanism for improving the performance of SMEs both domestically and at the international level, in turn improving GDP. Finally, the study will remain as a guide to SME owner/managers in identifying the significant elements enhancing their performance, and to SME regulators (SMEDAN) as reference material for future research.

1.6 Scope of the Study

This study focuses on examining the relationship between EAW, ESE and VBP on SMEs' performance, with the moderating role of AF. It covers SMEs in all sectors located in Kano, Kaduna and Sokoto states in north-western Nigeria. North-western Nigeria has the largest number of SMEs and the highest population in the country, according to the 2006 census (NPC, 2006). The region also has the most states; Kano, Kaduna, Sokoto, Katsina, Jigawa, Kebbi and Zamfara. The first three are the oldest and most populated states, with 73% of the population, and all the other states in the region were created out them. The unit of analysis of the study is the organisation, represented by SME owner/managers.

The study proposes owner/managers as respondents on behalf of their enterprises, because they are in the best position to provide the researcher with essential, available and accurate information concerning success or failure, as well as the current practice of their respective firms. These owner/managers are expected to represent the sampled SMEs (i.e. units of analysis) confidently and objectively by each completing a structured questionnaire.

1.7 Definition of Terms

Access to finance (AF): refers to the absence of financial and other non-financial blocks in accessing the available financial resources and accompanying services (Ganbold, 2008).

Entrepreneurial awareness (EAW): is the state of entrepreneurs' knowledge of the existence and importance of opportunities for entrepreneurial activities and their success, that is the entrepreneur's knowledge of the capabilities of entrepreneurial opportunities (Mitrovic & Bytheway, 2009).

Entrepreneurial self-efficacy (ESE): is entrepreneurs' judgement of their own ability to execute some course of action required to attain an outcome (Bandura, 1997).

Owner/managers: A person who both own a business and involve in running or manage it (Stokes, Wilson, & Wilson, 2010). That person must be aware of the current status of the firm as well its formal structure and the current position in the industry.

SMEs' performance: refers to the outcome of organisational commitment measured along with its intended objectives (Kaplan & Norton, 2001).

Small and Medium Enterprises (SMEs): (SMEs): Any business or firm with 10 to 199 employees and total assets of NGN5 million to NGN500 million, excluding land and buildings (SMEDAN, 2012).

Viable business plan (VBP): entrepreneurial activities resulting in producing a written document that is sufficiently formal and substantive to provide direction for the development of business activities (Perry, 2002).

1.8 Organisation of the Thesis

The thesis is structured in five chapters. Chapter One presents the introduction, statement of problem, research questions, research objectives, scope and significance of the study, and defines of key terms.

Chapter Two presents reviews the literature on SMEs' performance, EAW, ESE, VBP and AF. It examines the empirical findings and methods linking EAW, ESE, VBP, AF and SMEs' performance, and discusses the underpinning theories. Finally, it presents and explains the research framework and hypothesis development.

Chapter Three establishes the methodology of the study, the operationalisation and measurement of the variables, and the research design and population of the study. It describes the sample size and power analysis, sampling technique, the procedure for data collection and the instrument used. It highlights the technique used for data analysis and the statistical package employed for this. Lastly, the results of the pilot or preliminary study are presented.

Chapter Four presents the findings of the study; it comprises statistical analysis of the gathered data, data preparation and screening. The chapter also reports the analysis of the measurement model (outer model) and the structural model (inner model) of PLS-SEM assessed in the SmartPLS 2.0 software package.

The final chapter presents the findings of the study based on the respective research questions, objectives and the research hypotheses. It delivers the theoretical, practical and methodological implications of the findings. Finally, it outlines the limitations of the study, suggests directions for future research and presents the overall conclusion to the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the related literature to provide background information on the moderating role of AF on the relationship between EAW, ESE, VBP and SMEs' performance in North-western Nigeria. It discusses related issues including the concept of SMEs, the development of SMEs in Nigeria, SMEs' performance, the main problems facing SMEs in Nigeria, the concepts of EAW, ESE and VBP as well as previous empirical studies on the constructs/variables of the conceptual model. Finally, the theoretical framework and underpinning as well as the development of hypotheses are discussed.

2.2 Definition of SMEs

Different studies in different economies and institutions set their own guidelines for defining SMEs, usually based on the number of employees, assets and sales, as well as the legal status and methods of production in some cases (Abor & Quartey, 2010). For example, the European Union has defined an SME as any firm that satisfies three of the following criteria: a small firm is one that has an annual turnover and balance sheet totalling no more than £10 million; employees number fewer than 50. The medium firm has a turnover not exceeding £50 million, a balance sheet totalling not more than £43 million, and employees numbering fewer than 250. In this definition,

to qualify as an SME the turnover, balance sheet and employee criteria must all be fulfilled (Commission, 2003).

On the other hand, the World Bank has defined SMEs as those business enterprises with not more than 300 employees, $US15 million of annual revenue, and $15 million in assets. The Inter-American Development Bank describes SMEs as enterprises with a maximum of 100 employees and less than $3 million in revenue (Bouri et al., 2011). In Malaysia, SME is defined under two categories: manufacturing, and services and other sectors. In manufacturing, sales turnover must not be more than RM50 million and full-time employees not exceed 200, while in services and other sectors, the sales turnover not above RM20 million and the number of full-time employees does not exceed 75 (SMIDEC, 2014).

In Nigeria, SMEs are classified by various measures, including sales turnover, number of employees, investment, asset base or an amalgamation of some or all of these (SMEDAN, 2012). The current definition of SMEs in Nigeria was proposed by SMEDAN in 2012. Small scale is defined as any enterprise with a workforce of ten to 49 employees; and total assets of five million Naira (NGN5 million) NGN50 million including working capital but excluding the cost of land. Enterprises with a workforce of 50 to 199 employees, and total assets of NGN50 million NGN500 million, including working capital but excluding cost of land, are medium scale (SMEDAN, 2012) (see Table 2.1).

Table 2.1
Definitions and Classification of SME(s)

S/N	Size Category	Employment	Assets (₦ Million) (excl. land and building)
1.	Small enterprises	10 to 49	5 to less than 50
2.	Medium enterprises	50 to 199	50 to less than 500

Source: *National policy on MSMEs, SMEDAN (2012)*

This study therefore defines SMEs as any business enterprise with 10 to 199 employees and total assets of NGN5 million to NGN500 million, excluding land and buildings.

Irrespective of how SMEs are defined, they are considered as the major engine of economic growth and development, especially in developing and the least developed countries (LDCs). A vibrant SME sector is needed for the promotion of sustainable economic development in Nigeria, as in any other country, through wealth creation and employment generation as well as poverty reduction (Gbandi & Amissah, 2014).

2.3 Development of SMEs in Nigeria

Nigeria is the second largest economy in Africa, with a population of 178.5 million and a GDP in 2013 of $521.8 billion (WorldBank, 2014). The country is divided into six geo-political zones: North-West, North-East, North-Central, South-Central, South-East and South-West.

Figure 2.1
Map of Nigeria showing the six geo-political zones

Figure 2.2
Map of Nigeria showing states consist in the geo-political zones

Poverty remains a serious issue in Nigeria, with about 70% of the population below the poverty line on an average $300 per capita annual income (SMEDAN, 2012). Oil and non-oil activities make up the economy, with about 50% of government revenues coming from the oil and gas sector and earning over one quarter of the foreign exchange. Nevertheless, agriculture remains the biggest sector in Nigeria's economy (SMEDAN, 2012). The activities of SMEs and agriculture are the source of income

of most Nigerians, remembering that as at 2013 there were nearly about 73,000 registered SMEs (SMEDAN, 2013).

Formally, SMEs are categorised into: agriculture, manufacturing, hunting, wholesale and retail trade; mining and quarrying; building and construction; hotels and restaurants; transport, education, forestry and fishing; financial intermediation; health and social work; real estate and renting; storage and communication; and personal and social activities (SMEDAN, 2012). Most of the large SMEs in Nigeria are clustered around the population centres. For instance, Otigba ICT SMEs are clustered in Lagos state, leather and fashion SMEs in Abia state, tie and dye in Oshogbo and Abeokuta, leather in Kano, and automobile SMEs in Nnewi. Other micro and small enterprises operate largely in the rural areas or at village level throughout the country (SMEDAN, 2012).

In 2013, SMEs employed almost 1,903,820 people (SMEDAN, 2013). Most SMEs are located along tertiary, secondary and major roads in and around market areas (Bank, 2005). Of the 72,839 SMEs in the country, Lagos state has the highest number with 11,663, Kano state is second with 8,286, followed by Oyo and Kaduna states with 7,987 and 2,882 respectively. Sokoto state has about 841 SMEs and Zamfara, Bayelsa and Kwara states of the fewest, with 526, 426 and 226 respectively (SMEDAN, 2013).

2.4 Nigerian government initiatives (policies and programmes) for promoting SMEs

In recognition of their poor contribution to Nigeria's GDP, initiatives and policies promoting the development of SMEs feature in the government's economic sustainability and development plans, aiming to foster further growth in the sector (Ayanda & Laraba, 2011).

The government is critically concerned about transforming, promoting and supporting the SME sector in order to improve its contribution to the national GDP (Hassan & Olaniran, 2011). Thus, since 1970, several programmes, schemes, policies and institutions have been introduced by the government for the promotion or advancement of SMEs, as shown in Table 2.2.

Table 2.2
Various Agencies, Scheme, Programmes, Policies and Institutions for the promotion of SMEs

Policies and Programmes	**Objective(s)**
CBN policy on merchant and commercial banks (1970)	To promote and up-lift the SMEs sector by allocating certain percentage to SMEs.
Small Scale Industries Credit Scheme [SSICS] (1971)	To provide convenient and monetary support for SMEs.
Small Scale Industries Credit Committee [SSICC] (1971)	To look at the financial support set aside for the program all over the country. To make credit available to SMEs the scheme intended to bring the state and central government grant into contact.
Bank of Industry (BON)	To provide financial support to indigenous business particularly SMEs.
World Bank II loan scheme in 1987	To negotiation with World Bank to find potential ways of supporting SMEs in Nigeria.
National Directorate of Employment [NDE] (1986)	To develop SMEs through vocational skills and Youth empowerment development programme.

Table 2.2 Cont…

National Economic Reconstruction Fund [NERFUND] (1989)	To make both long and medium term soft loan available to indigenous SMEs in the country.
Small and Medium Enterprises Equity Investment Scheme [SMEEIS] (2001)	To have collaboration between CBN and the Bankers Committee to agree on the condition that each and every commercial bank should set aside 10% of their annual profit before tax for the promotion of SMEs.
Small and Medium Enterprises Development Agency of Nigeria [SMEDAN] (2003)	To promote small business sector in the economy. To promote wealth creation, empowerment generation, facilitate access to credit. To improve the utilization of local raw materials, poverty alleviation, motivate the utilization of local technology, facilitation of access to local and foreign market and facilitate the development of rural areas.
SUbsidy Re-investment and Empowerment Programme [Sure-P] (2012)	To reduce unemployment among graduates and stimulate economic growth. To enhance the opportunities towards the attainment of Vision 2020.
Youth Enterprise with Innovation in Nigeria [You Win] (2012)	To generate jobs by encouraging and supporting aspiring entrepreneurial youth in Nigeria to develop and execute business ideas that will lead to job creation. To provide aspiring youth with a platform to show case their business acumen, skills and aspirations to business leaders, investors and mentors in Nigeria.
N-power (2016)	To help youth in reducing unemployment by helping them to create jobs and engaging them in activities while unemployed.
Youth Entrepreneurship Support [YES] (2016)	Aimed at equipping young people with the skills and knowledge to be self-employed by starting and managing their own businesses.

Source: *Hassan and Olaniran (2011)*

These agencies, programmes and policies aim at the promotion and development of the SME sector either directly or indirectly; they were initiated by different governments under different administration due to various circumstances and situations (Abiodun, 2003; Aminu, 2009; Babajide, 2012; Babajide, 2011).

2.5 SMEs' Performance

The actual outcome of every organisation measured alongside its input makes up the performance of a firm. Performance measurement allows organisations to concentrate on the units needing to be improved, by assessing the degree of progress required, based on quality, cost and time, as well as combining areas with higher yields (Ringim, 2012; Tomlinson, 2011).

According to Dess and Robinson (1984) as cited by Ringim (2012), SMEs' performance is assessed by a number of criteria or indicators for competition, globalisation, long-term survival liquidity, profitability, management performance, human resource management, leverage market share, and quality of goods and services. To Dess and Robinson, these indicators serve as the major elements in measuring SMEs' or organisational performance. Berry, Sweeting and Goto (2006), also relate performance to level of productivity, the optimal utilisation of resources in an effective and efficient way.

Performance is defined by Man (2009) as the result of acclimatising effective management processes; it can be measured by a number of criteria: productivity, growth, efficiency and effectiveness. Kaplan and Norton (1995, 2001) suggested that, a firm's performance should be determined by using a Balanced Scorecard (BSC) which captures both lagging and leading performance measures. BSC examines performance from four different perspectives: financial, customer, the internal business process, and learning and growth.

The BSC method was used by Kee-Luen *et al*. (2013) to measure business performance, with the financial perspective as an indicator to measure financial (goals) performance; the customer perspective to measure performance in terms of time, cost, quality and services in relation to customer satisfaction; critical internal operation measured by the internal business perspective; and the learning and growth perspective to measure the emphasis of management on employee capabilities, motivation, available information systems and empowerment. These provide a balanced view of a firm's performance.

Nevertheless, Hudson, Smart and Bourne (2001) identified shortcomings in the BSC approach, even though it cover very good performance dimensions, because no mechanism is provided for maintaining the defined measure. Ballantine and Brignall (1994) identified lack of integration between strategic scorecard, top-level and operational-level measures as an additional deficiency of Kaplan and Norton's model. Hudson *et al*. (2001) proposed six dimensions of performance measurement: flexibility, quality, finance, time, human resources and customer satisfaction.

Murphy, Trailer and Hill (1996) and Suliyanto and Rahab (2012) measured performance using only two dimensions: financial and non-financial measures. Performance is the determination of financial ability of an organisation, such as its investment level and profitability level including growth in sales (Kamyabi & Devi, 2011). However, the performance concept as explained by Olusola (2012) is the ability to measure the level of achievement of a business organisation, whether big or small; SMEs can be assessed in terms of size, employment level, profitability and potency of working capital.

Some studies choose the subjective (non-financial) measure in assessing SMEs' performance. For instance, Ittner and Larcker (2003) showed that subjective measures assist managers to examine the level of achievement of their respective SMEs. However, other studies prefer the financial (objective) performance measure as an indicator of general performance (see Murphy *et al.*, 1996). Meanwhile, the report of Davood and Morteza (2012) concluded that performance is the ability of a firm to produce an acceptable outcome and actions; performance in business activities is therefore the central issue that needs sufficient planning and commitment.

Performance viewed in terms of objective assessment, that is from the financial perspective, can be further measured by organisational performance on equity, on return, on sales growth and on assets base (Shariff, Peou, & Ali, 2010). According to Brinckmann *et al.* (2010), performance can be measured in terms of profitability, survival and growth.

To summarise these concepts and definitions, SMEs' performance refers to organisational successes that cover operational and financial outcomes. Organisational success means achieving the overall objectives in an effective and efficient utilisation of resources. Performance can be measured using objective (financial) and subjective (non-financial) measures.

2.5.1 Main problems facing SMEs Performance in Nigeria

Regardless of the numerous benefits derived from the SME sector in Nigeria. Adelaja (2007), Eniola and Ektebang (2014) and Ogechukwu (2011) identified

difficulty in accessing financial capital, lack of viable and strategic business plans, lack of awareness, lack of managerial competence, problems of infrastructure, poor administration, and mismanagement of financial resources and policy implementation as the challenges encountered.

Many studies (Adelaja, 2007; Eniola & Ektebang, 2014; Ogechukwu, 2011; Oluboba, 2002) have recognised that SMEs in Nigeria face numerous challenges, largely contributing to their low performance and premature demise, these includes poor flow of information, poor and weak linkage between different segments of operations in the sector, low operating capacities in terms of skills, knowledge and enterprises attitudes (National Implementation Plan, 2010).

Likewise, Okpara (2011) identified administrative problems such as accounting and finance, poor management skills, absence of planning; and lack of financial support as the major challenges that SMEs face in Nigeria. The author added corruption, poor location, poor infrastructure and illegal business conduct.

On the other hand, Onu and Ekine (2009) acknowledged inadequate sources of finance, absence of basic infrastructure, low investor confidence, poor access to credit, poor investment in agriculture, unfavourable government policies, high production costs, uncertainty on investment, an unfavourable business environment and inadequate institutional support as the major problems. Issues like EAW, poor funding, lack of ESE, inadequate VBP, insufficient government financial support and inadequate infrastructure are all behind the underperformance of Nigerian SME sector (SMEDAN, 2012).

In addition, Olutunla and Obamuyi (2008) and Okpara (2011) stated that poor technology adaption, lack of access to essential information, absence of property protection rights, high dependency on imports, weak purchasing power, high inflation, corruption, lack of honesty, inadequate power, poor business position and poor marketing strategies are the major challenges to SMEs in Nigeria.

Of all the many issues identified in the literature as the main problems behind underperformance of SMEs in Nigeria, this study focuses on EAW, ESE, VBP and AF as determining factors (SMEDAN, 2012) which have been largely neglected in the previous studies. Therefore, literature on these specific topics is reviewed in the following sections.

2.6 Concept of Entrepreneurial Awareness (EAW)

Entrepreneurship is a psychological property of individuals that can be described in terms such as creativity, daring and aggression (Wilken, 1979). Historically, concept of "entrepreneurial alertness" was developed by Kirzner (1973) from the Austrian economics literature; this assumes that entrepreneurship involves the discovery of opportunities and the resources to exploit them to attain equilibrium. The term "alertness" was the first used by Kirzner (1973) to explain the recognition of entrepreneurial opportunity. Entrepreneurial alertness is defined as an attitude of receptiveness to available, but as yet overlooked, opportunities (Kirzner, 1997).

Furthermore, Hou (2008) explained Kirzner's concept of entrepreneurial alertness by three antecedents: awareness, motivation, and capability. Awareness refers to "how an individual recognises an opportunity in the competitive environment"; motivation

accounts for the incentives that drive the entrepreneur to undertake actions in the context of competitive dynamics; and capability reflects the entrepreneur's resource or knowledge that underpins his/her ability to execute competitive actions (Chen, Su, & Tsai, 2007). Many studies have measured entrepreneurial alertness from different perspectives and in different domains.

In general, entrepreneurial alertness is regarded as awareness measured as a propensity to sensitivity and to notice information about incidents, objects and forms of conduct in the environment (Hayton & Cholakova, 2012). Various studies measured awareness in the area of marketing to assess the level of customers' awareness of new product brands as well as loyalty to the existing service (Khan & Asghar, 2012; Market-Research-Worldwide, 2009; Mitrovic & Bytheway, 2009; Subhani & Osman, 2011). According to Clare et al. (2011), awareness can be defined as a practical perception or consideration of a given phase of one's situation, performance, expressed openly or perfectly. Awareness is the state of knowing the existence of something and its importance (Oxford Dictionary, 2010). Nambisan, Agarwal, and Tanniru (1999) measured awareness as technology cognizance and defined it as a user's knowledge about the capabilities of a technology, its features, potential use, and cost and benefits.

However, the above discussion shows that the concept of EAW in most studies was commonly measured as one aspect of organisational performance (mostly product, customer or brand awareness), neglecting to measure it against the whole aspect of performance, particularly SMEs' performance. The present study therefore measures EAW by considering both financial and non-financial performance of Nigerian

SMEs. Entrepreneurial awareness is considered to be the state of entrepreneurs' knowledge of the existence and importance of entrepreneurial opportunities for success. The next section reviews empirical studies linking EAW with performance outcomes.

2.7 Entrepreneurial Awareness and Performance

Governments in both developed and developing countries have embarked on various schemes and programme to provide entrepreneurial opportunities for SME development. However, many entrepreneurs are still unaware of the existence of these opportunities (SMEDAN, 2012; Thong *et al*., 2013). A communication campaign on available entrepreneurial opportunities (financial opportunity) was conducted among entrepreneurs to increase their awareness and acceptance of financial services (UNDP, 2008). Singh and Belwal (2008) stated that the creation of awareness is imperative for any government and other stakeholders worldwide who wish to launch programmes promoting entrepreneurship. However, their study revealed that many of the potential beneficiaries are excluded from microfinance schemes because of inadequate awareness (Gaiha & Thapa, 2006). This motivates the conduct of most of the empirical studies.

Many studies have been conducted in various disciplines to assess the concept of awareness. For instance, Thong *et al*. (2013) examined the level of awareness of microfinance programmes among microenterprises in the central region of Malaysia. Their study uses a causal and descriptive design with a sample size of 384 respondents; the findings indicate that educational level and marketing and

promotional activities are positively related with the level of awareness, while age, monthly income, social culture and gender are negatively related with the level of awareness.

Hou (2008) conducted a study with 683 large franchise chains in Taiwan, reporting that EAW has a positive influence on both entrepreneurial action and previous performance, but a negative one on the franchise's working duration. Ajemunigbohun *et al*. (2014) undertook an empirical investigation to measure the level of accessibility of micro-insurance products in Nigeria through the creation of awareness. The study adopted a survey research design and interview method of data collection from 60 respondents, and the Kolmogorov-Smirnov technique for data analysis with the sample size. However, it concluded that awareness creation is not encouraged among Nigerian insurance companies and does not significantly reflect the behaviour of many potential insurance clients.

To assess the impact of awareness on product perspective, Subhani and Osman (2011) examined the association between brand awareness and consumer loyalty in the packaged milk industry in Pakistan. The study tested the relationship using the Chi-squire technique of data analysis. No significant relationship was found between brand awareness and consumer loyalty. In a similar study, Homburg *et al*. (2010) reported a positive relationship between brand awareness and market performance, where the relationship is stronger in a market that has greater buyer time pressure, homogeneous buying, a high degree of technological turbulence and homogenous products.

To verify the degree of awareness among Croatian corporate managers of the impact of business selection on e-business efficiency, Panian and Spremić (2004) sampled 400 large companies, using a correlation technique for data analysis. The findings of the study reported a significant relationship between the degree of awareness and managers' perception toward e-business. Similarly, the findings of Mansor et al. (2012) reported a significant relationship between service quality, promotion and technology, and awareness of e-banking among Malaysian SMEs. In a study by Ugwu and Ezeani (2012) the level of EAW on entrepreneurship skill was investigated using a sample of 110 library and information science students in a Nigerian university. Almost 70% of the students were unaware of the entrepreneurship opportunities. Janicik and Bartel (2003) reported that time awareness has a significant relationship with task performance.

In summary, most of the studies concentrated on large organisations and individual performance (Subhani & Osman, 2011; Panian & Spremić, 2004; Homburg et al., 2010; Hou, 2008; Ugwu & Ezeani, 2012), with the majority conducted in developed countries. Few concentrated on SMEs (Ajemunigbohun *et al.*, 2014; Thong *et al*., 2013; Mansor *et al*., 2012). The findings from the earlier studies reported mixed results. Most used first-generation analysis techniques (SPSS), neglecting second-generation techniques such as Partial Least Square-Structural Equation Modelling (PLS-SEM). There is also a scarcity of empirical studies linking EAW and SMEs' performance in developing countries, including Nigeria. Further empirical research linking EAW and SMEs' performance, using PLS-SEM, is therefore required.

2.8 Concept of Entrepreneurial Self-efficacy (ESE)

According to Bandura (1997) self-efficacy is defined as the beliefs of individuals concerning their ability to organise cognitive resources and needed courses of action to effectively perform a particular task in a given situation. The achievement of higher career goals are determined by the higher self-efficacy beliefs of an individual (Ballout, 2009). Self-efficacy is also defined as "belief in one's ability to muster and implement necessary resources, skills, and competencies to attain levels of achievement" (Baron, 2004, p. 4). To summarise, self-efficacy is the confidence one has in one's capability to achieve outcomes on a specified task (Trevelyan, 2011).

Different ways of measuring the concept of self-efficacy were found. For instance, Kossek, Roberts, Fisher and Demarr (1998) measured it on the basis of career self-efficacy through the employee's belief, competence and the ability to self-manage her/his career. In a study by Martinez Campo (2011), self-efficacy was measured as ESE, encompassing deliberation of specific tasks and considering how to perform particular activities that relate to the instigation and development of a new business enterprise. These tasks are identified by considering the basic functional business areas. For instance, Scherer, Adams, Carley and Wiebe (1989) measured ESE as proficiency in basic business functions, such as production, accounting, human resources, marketing and general organisational skills. However, the shortcoming of this approach is that expertise in all these functional business areas may not be necessary for all new business enterprises.

In the case of entrepreneurship, a different approach to descriptive entrepreneurial efficacy is to think about the extensive human competencies related with new business enterprise development. This is based on the assumption that appraisal of human competency is less dependent on the requirements and complications of particular new business enterprises' entry domains (Martinez Campo, 2011). Martinez Campo further defined ESE as the extent of the belief that he or she is capable of successfully establishing a new business enterprise.

With regard to the entrepreneurial role, business initiators understand their environment and pay attention to their customers in order to discover new opportunities, and develop methods to utilise opportunities to the advantage of a new firm (Mintzberg & Waters, 1982). Lastly, the business initiators in this technical-functional role must have some specific proficiency in the industry in which the firm will operate (Chandler & Jansen, 1992; Timmons, Muzyka, Stevenson, & Bygrave, 1987). ESE thus entails individuals' belief in their understanding and ability to succeed through successfully addressing the challenges attached to stated goals throughout the business start-up process (Drnovšek *et al*., 2010).

In a nutshell, few studies used these definitions and concepts to measure self-efficacy as ESE at the organisational success level (Martinez Campo, 2011; Scherer, Adams, Carley, & Wiebe, 1989). The present study therefore measures ESE as the entrepreneurs' judgement of their ability to execute some courses of action to attain an organisational outcome. The next section reviews empirical studies linking ESE to performance outcome.

2.9 Entrepreneurial Self-efficacy and Performance

The emergence of ESE serves as an essential construct in understanding entrepreneurial action. Several empirical studies confirmed that self-efficacy plays a vital role in influencing the performance of an enterprise. For instance, Hmieleski and Corbett (2008) reported a positive relationship between ESE and a firm's performance. Similarly, in the studies of Anna *et al*. (2000) and Forbes (2005), a positive relationship was found between ESE and new business enterprise performance. These findings further stated that entrepreneurs with high self-efficacy are more likely to face the challenges attached to their firm's growth and continue in their managerial efforts toward the achievement of their stated goals.

In contrast, Bresó, Schaufeli, and Salanova (2011) in a longitudinal design examined whether self-efficacy-based intervention increases engagement, performance and decrease burnout, as well as changing the sense of well-being among university students. The study employed an intervention programme with 66 students; 23 participated as the researcher's intervened group and the remaining 43 completed a questionnaire as a stressed and health control group. The findings reported that self-efficacy, performance and engagement increased in the intervened group, compared to the control group. Meece, Wigfield and Eccles (1990) and Pajares and Miller (1994) found an independent effect of individuals' beliefs in their efficacy on their performance achievements, while their level of anxiety had little or no correlation to their academic performance.

Hmieleski and Baron (2008) and Oyeku *et al*. (2014) believe that ESE is largely considered to be a strong predictor of the firm's performance. The findings of their studies in dynamic environments indicated a positive relationship between high ESE and firms' performance, combined with moderate optimism, while the relationship was negative when the optimism was high. Conversely, in a stable environment the effect of self-efficacy became weak and was not moderated by optimism. The studies finally concluded that high self-efficacy is not always positive and may have a negative effect under certain conditions. ESE negatively influences entrepreneurial intentions (Torres & Watson, 2013).

Nevertheless, it was observed by Drnovšek *et al*. (2010) that business enterprise growth self-efficacy focused on entrepreneurs' belief in exploiting the market value of existing goods and services successfully; there is a distinction between ESE beliefs about one's ability to start up a business successfully and ESE beliefs about one's ability to develop the business successfully. ESE is positively related to enterprise performance (Baum & Locke, 2004), and empirical evidence suggests that it is a strong influence (Trevelyan, 2011).

Some studies used self-efficacy as a mediating or moderating variable. For instance, Ballout (2009) examined the relationship between career commitment and career success with the moderating role of self-efficacy. The study employed a snowball sampling approach and multiple regressions for data analysis, with a response of 180. Self-efficacy was found to have a positive effect on the relationship between career commitment and career success. The study further explained that individuals with higher career commitment and higher self-efficacy would enjoy greater career

satisfaction. Self-efficacy has a direct influence on career success (Kidd & Green, 2006). Day and Allen (2004) reported that self-efficacy is an indicator of performance effectiveness and career success. A significant relationship between self-efficacy and occupational performance was found (Lent, Brown, & Hackett, 1994).

Herath and Mahmood (2014) reported mixed results in their study examining the effect of ESE on SME entrepreneurs' performance in Sri Lanka. Their study measured ESE through six dimensions with a sample of 800 entrepreneurs of small-scale restaurants and hotels, using SEM. The mixed results of this study indicated a positive relationship for the effect of five dimensions (developing new product and market opportunities, building an innovative environment, initiating an investor relationship, defining core purpose and coping with unexpected challenges) on performance, but a negative one between developing critical human resources and performance. Mueller and Dato-On (2008) reported insignificant differences between self-efficacy beliefs in male and female students.

Likewise, Hmieleski and Corbett (2008) examined 159 entrepreneurs to analyse the moderating role of ESE on the relationship between the improvisational behaviour of the founder and the performance of new business enterprises. This study had mixed results, indicating a positive relationship between improvisational behaviour and new business enterprise performance, although the moderating role of ESE had a negative effect.

Differently, Judeh (2012) assessed whether job characteristics have any impact or influence on self-efficacy and workers' performance. A questionnaire-based survey approach was employed with 279 respondents randomly selected from listed technology and communication companies on the Amman Stock Exchange. In order to test whether the data collected supported the proposed research model, SEM was employed for data analysis. The findings indicated inconclusive evidence for the influence of self-efficacy on job performance.

In a study undertaken in China, Pan *et al*. (2011) examined the impact of self-efficacy on 226 employees of four manufacturing firms. The study used self-efficacy as a mediating variable and it was acknowledged from the findings that supervisory mentoring is hindered by employee self-efficacy. However, a positive relationship was indicated between employee self-efficacy and the mediating role of work-related performance. In contrast, a negative relationship was found between self-efficacy and the mediating role of job satisfaction.

Similarly, Cherian and Jacob (2013) examined the influence of self-efficacy on employee motivation and performance using a meta-analysis technique. The study analysed individual research findings from the period 2000-2012, using standardised data extraction forms. Self-efficacy was identified as having a positive influence on employee performance. On the other hand, self-efficacy does not necessarily increase individual performance (Bandura & Jourden, 1991), and may be negatively related do it (Cervone & Wood, 1995; Vancouver, Thompson, & Williams, 2001).

To sum up, the literature reviewed here indicated that most of the studies concentrated on individual performance (Anna et al., 2000; Bandura & Jourden, 199; Bresó, Schaufeli, & Salanova, 2011; Cervone & Wood, 1995; Cherian & Jacob, 2013; Vancouver, Thompson, & Williams, 2001) and the majority of such studies were conducted in developed countries. Few concentrated on enterprises performance, and several reported mixed results. The review further indicated a scarcity of empirical studies linking ESE and SMEs' performance in developing countries, including Nigeria. More work is therefore needed to add to the understanding of this construct and to realise its potential to shed light on the theoretical and practical challenges of entrepreneurship (Forbes, 2005). That is, there is a need for further empirical research linking ESE and SMEs' performance.

2.10 Concept of Viable Business Plan (VBP)

Planning is an important part of the managerial process, helping to overcome the numerous problems that are the consequence of indecision and irregular information in the exploitation of entrepreneurial opportunities (Delmar & Shane, 2003).

Entrepreneurship involves planning, whose functionality is a contentious issue in entrepreneurship research (Frese et al., 2007). Theorists and researchers on planning have argued about the value of planning in entrepreneurship. For instance, Locke and Latham's (1990) "goal setting theory" argued that planning is necessary in a multifaceted task environment. Gollwitzer (1999) agreed that theories like cognitive, action and organisation theories hold that translating thoughts and intentions into

action necessitates proper planning. However, Sonnentag (1998) is of the opinion that it is the quality of the plans that count, rather than their quantity.

Overall, the literature has revealed that the critical phase of performance is planning (Mumford, Schultz, & Van Doorn, 2001), so entrepreneurs should prepare plans for the organisational process that involve opportunity exploitation through recombining resources (Delmar & Shane, 2003). In organisational process, planning overcomes many problems resulting from the information asymmetry and uncertainty attached to the exploitation of entrepreneurial opportunities. Planning identifies the financial, human and physical resources needed by a business enterprise, and measures the precision of the entrepreneur's speculations concerning opportunities (Delmar & Shane, 2003). A business plan is an action engaged in by entrepreneurs in overcoming the problems of uncertainty and information irregularity attached to resource acquisition. Delmar and Shane (2003) further defined business plans as documents that help identify the entrepreneur's speculations in both visual and written form, and which make possible the communication of those speculations to financiers.

MacMillan and Narasimha (1987) explained how entrepreneurs use planning in identifying the strategy required for building a business enterprise, its location, the risk involved, the financial condition of the enterprise, its assets, structure and the timing as well as the amount of funds needed from the financier.

"Business plans provide a signal of the quality of the entrepreneur and the opportunity" (Shane, 2003, p. 187). Similarly, Zimmerman and Zeitz (2002) opined

that the business plan is an institutional structure use by entrepreneurs to tell stories relating to their business enterprise.

Castrogiovanni (1996) saw planning as pre-start up planning, a written document that serves as a business proposal enabling entrepreneurs to access external financing for their new business. Financiers use these documents to determine the likely success of the proposed ventures. According to Castrogiovanni, pre-start up planning serves as a symbol to identify the new business enterprise's proposal, as well as developing communication with potential financiers and different external stake holders.

A comprehensive business plan also offers an opportunity to entrepreneurs in pulling together all the aspects of a new business enterprise in order to observe the cost of various approaches and their strategies, as well as verifying the financial requirements for initiation and development of ideas into a viable business enterprise (Chwolka & Raith, 2012). At the same time, the business plan comprehensively serves as a screening tool for financiers and bankers. For instance, entrepreneurs prepare plans to show financiers the details of their proposed enterprises, enabling them to exploit the available opportunities (Castrogiovanni, 1996). Obtaining finance is one of the potential benefits from pre-start up planning (Castrogiovanni, 1996; Hisrich & Peters, 1989; Sexton & Bowman-Upton, 1991).

A business plan is a pre-requisite for entrepreneurs in accessing formal financing or venture capital, because it serves as the most important source of information for financiers or banks in the financing decision (Zacharakis & Meyer, 2000). This was emphasised by Hindle (1997), who maintained that readers used the information in the business plan to take decisions on whether or not to provide resources to a

particular business enterprise. Similarly, Trimi and Berbegal-Mirabent (2012) stated that business plans serve as a means of communication between an entrepreneur and financier, the essence of financing.

Most entrepreneurs do not have the capital to start their business at the time they want. For example, Bygrave, Lange and Evans (2004) estimated that only one in any ten thousand new business enterprises have sufficient funding at the outset. This makes it necessary for entrepreneurs to engage in writing business plans, because all sources of business finance, whether corporate strategic partners or banks make formal business planning a requirement in accessing their financial resources.

While most researchers consider business planning as a requirement for accessing financial resources, Mintzberg (1994), Kee-Luen *et al*. (2013) and Pearce and Robinson (2000) saw it as strategic planning involving defining the organisation's direction, and its decision making on resource allocation to pursue their policy. It is carried out by strategists or strategic planners who engage many research sources in their investigation of a corporation and its relationship with the competitive environment. Perry (2001, 2002) defined business planning as entrepreneurial activities resulting in producing a written document that is sufficiently formal and substantial to provide direction for the development of business activities. Perry used the forecasts of sales, staffing, capital requirements and capital expenditure to judge the business plan.

Therefore, this study defined VBP by adapting Perry's (2001, 2002) definition: a written document that is sufficiently formal to improve internal operations as well as

describe and market the business to potential external financiers and provide direction for the development of business activities.

2.11 Viable Business Plan and Performance

Many researchers in the field of entrepreneurship have debated the assessment of business planning (Delmar & Shane, 2003), with empirical studies to investigate the relationship between planning and business enterprise performance from different perspectives, with different outcomes. For instance, in Gruber's (2007) addition to the literature on the planning-performance relationship, his study focused on the area of marketing planning in order to limit the scope of business planning. The study employed a sample of 348 firms in Germany, using an e-mail questionnaire for data collection, with 142 responses analysed using a correlation coefficient. The findings indicated significant negative coefficient between marketing objectives and marketing planning.

Chwolka and Raith (2012) employed nascent entrepreneurs in measuring the value of planning and their decision on whether or not to plan. Their results contrast with the empirical studies that evaluate ventures' performance after market entry. Planning was found to be important in entrepreneurs' decisions on opportunity evaluation, having a significant impact on entrepreneurs before market entry.

In another proposition, although many nascent entrepreneurs do plan their enterprises, the more successful among them may nonetheless start business enterprise with no business plan. For instance, Chwolka and Raith (2012) employed a sample of 10,000 nascent entrepreneurs to relate business planning and venture

success. 55% decided to plan, of which 825 emerged successful. This is similar to the study undertaken by Lange et al. (2006) which examined 1,725 entrepreneurs, of whom 52% were successful; most of them planned their business before starting, but the majority of successful ones started without planning. To summarise, these observations contradict the generally recognised need for business planning.

However, Brinckmann *et al.* (2010) proposed that whether the enterprise is new or already established, planning will lead to better performance, and is vital for development and survival. However, Shane and Delmar (2004) argued that writing business plans before undertaking marketing activities should improve the survival of the venture. They examined a random sample of 223 new ventures in Sweden within their first nine months, and found that those which had completed a business plan before any marketing activities had a better survival rate than those which had not.

Bracker *et al*. (1988) conducted a study on the relationship between planning and the financial performance of small firms in operation for more than five years in a growth industry (electronics), using MANOVA with a sample of 217 owner/managers. Data from their questionnaire indicated that planning for the sake of planning process did not lead to increased financial performance; the type of planning process employed, and especially long-term planning, were the important elements regarding performance.

Honig and Karlsson (2004) found no relationship between the survival of growing enterprises and business planning; within the first two years there was no relationship

between writing a business plan and profitability. Therefore, the study concluded that a pre-startup business plan would not produce higher performance.

Among the host of contradictory opinions, strategic management researchers have empirically clarified the nature of the relationship between planning and performance. For instance, Hopkins and Hopkins (1997) used a causal design to find the relationship between strategic plans and banks' financial performance, using the sample of 112 banks; they reported that the strategic planning process has a direct positive effect on the banks' financial performance. The study also indicated that there is a reciprocal relationship between strategic planning intensity and performance, and concluded that without an intense engagement process by the manager, strategic planning would not lead to improved financial performance.

In the same vein, formal business plans do not improve business performance and successful growth. Mazzarol *et al*. (2009) examined strategic planning in small, growth-oriented firms using a sample of 204 owner-managers; a structured questionnaire were used for data collection and confirmatory factor analysis and discriminate analysis applied.

Kraus *et al*. (2006) conducted an investigation on strategic planning in smaller enterprises using a sample of 290 in Austria, with logistical regression analysis. They reported that some aspects of strategic planning (strategic instrument, time horizon and control) did not contribute to performance. Nevertheless, there is a scarcity of empirical studies on strategic planning in small businesses; most small firms plan in a formal manner which takes up a considerable amount of time (Kraus *et al*., 2006).

In another study on strategic planning and business performance of SMEs in Malaysia, Kee-Luen *et al*. (2013) reported a positive relationship between them, with r = 0.591, p = 0.01. Data was collected through an e-mail questionnaire survey 50 responses were retrieved from the 350 randomly selected SMEs, and analysed , by multiple regression analysis using SPSS vn 17. A large-scale study of small Dutch real estate agencies found a weak relationship between planning and performance (Risseeuw & Masurel, 1994). In contrast, Norman et al. (2009) argued that planning can lead to an increase in performance, in turn bringing business success.

Most of the studies reviewed above were conducted in developed countries, and few concentrated on the performance of existing enterprises. The findings from the earlier studies reported mixed results. Most used first-generation analysis techniques (SPSS) rather than second-generation analysis techniques like PLS-SEM. There were few empirical studies linking VBP and SMEs' performance in developing countries, including Nigeria, so one is required, using PLS-SEM.

2.12 Access to Finance as a Moderator

Access to financial resources is measured from two different perspectives: the supply (providers) and demand (users) perspectives. Kumar (2005) stated that access to financial resources is measured by three major dimensions or elements: institutional, functional and product. The institutional dimension measures the degree of modern financial services, objective efficacy, conditions and terms for the provision of financial services, and close observation; the functional dimension measures the

capacity of supply side or suppliers to deliver a particular financial service; and the product dimension measures the level and availability of financial services.

Bouri et al. (2011) stated that most SMEs in emerging economies are constrained in accessing financial capital, which continues to hamper their growth and development. Most SMEs rated AF as their major limitation, as they found it very difficult to acquire resources from either local or other financial institutions. AF is, indeed, one of the most severe problems encountered by SMEs in developing nations (UNIDO, 2007) and restricting their development. This explains the uncertainty attached to SMEs (Dobbs & Hamilton, 2007).

Considering the centrality of AF, various definitions have been proposed. For instance, Bouri et al. (2011) characterised it as the accessibility of internal debt and equity (cash-related resources) for SMEs. SMEDAN (2012) likewise characterised it as financial services delivered by financial establishments. According to Kelley, Singer, and Herrington (2012), AF is the accessibility of monetary assets and other financial facilities to SMEs. In a broader definition, AF might be defined as an absence of both financial and non-financial blocks in accessing financial capital and facilities. Ganbold (2008) asserted that, access to finance refers to the absence of financial and other non-financial barriers in accessing the available financial resources and accompanying services.

Recently, there is growing affirmation that a superior access to finance for SMEs can enhance their performance, and thus prompt private and financial advantages for the national economy (Kumar, 2005). Xavier et al. (2013) confirmed that AF is a major, critical element supporting SMEs' business-related activities in any country. It can

influence the performance of SMEs either positively or adversely. As indicated by Psillaki, Tsolas and Margaritis (2010), outstanding performance is accompanied by a corresponding degree of influence. Conversely, excessive obligation can result in under-performance (Campello, 2006).

It is unquestioned that an important part of operating any enterprise is finance (SMEDAN, 2012). Inadequate AF jeopardises an enterprise's current performance and its potential for growth (Rahaman, 2011). Therefore, lack of financial resources interrupts the realisation of SMEs' full capacity as economic drivers. AF is a critical issue responsible for the poor performance of Nigerian SMEs (SMEDAN, 2012). Viable business activities in the long term will be strongly influenced by the organization's AF (Aktan & Bulut, 2008). AF in both privatised and publicly owned industries has been shown to positively affect firms' performance (Knyazeva, Knyazeva & Stiglitz, 2009).

Numerous studies (e.g. Beck & Demirguc-Kunt, 2006; Demir & Caglayan, 2012; Fonseka et al., 2013; Krishnan et al., 2014; Kuzilwa, 2005; Rahaman, 2011; Rogerson, 2008; Xavier et al., 2013; Zou et al., 2010) stress the unique role played by AF in enhancing SMEs' performance. Onakoya, Fasanya and Abdulrahman (2013) investigated empirically AF for small-scale enterprises and its impact on economic growth in Nigeria, using time-series data covering the period 1992-2009, and the econometric technique of the Ordinary Least Square (OLS) for data analysis. The size of the coefficients signified the impact of bank loans on economic growth. Loans to SMEs had a positive impact on the growth of GDP, though minimal but still significant; the interest rate had a negative impact on the growth of GDP because the

CBN's policy on interest rates was inconsistent over time. Access to credit continues to be a major problem for SMEs in Nigeria since the traditional financial institutions have not been able to meet their credit needs. Another problem confronting SMEs in Nigeria is managerial capacity.

In another study, Akingunola (2011) assessed specific financing options available to SMEs in Nigeria and their contribution to economic growth via their investment level. The Spearman's Rho correlation test was applied to determine the relationship between SME financing and investment level. The analysis reported a significant Rho value of 0.643 at 10%, which indicated a significant positive relationship. The relevance of SMEs as a means of generating employment and reducing poverty in Nigeria was examined by Ayanda and Laraba (2011). After a thorough review of the literature, they concluded that the SME sector is the main driving force behind job creation, poverty reduction, wealth creation, income distribution and reduction in income disparities.

Kuzilwa (2005) investigated the role of credit in generating entrepreneurial activities with a sample survey of businesses that gained access to credit from a Tanzanian government source; the findings reveal that those enterprises whose owners received business training and extension advice performed better than those who did not. The study further shows that many of the problems faced by the entrepreneurs are not related to capital, but rather arise as a result of macro-economic and institutional constraints, citing business barriers such as poor infrastructural support and stiff competition amongst micro- and small-scale producers as an example.

However, the study by Oni, Paiko and Ormin (2012) determined SMEs' AF in Nigeria. The study employed 360 randomly selected SMEs and questionnaires were used for data collection, analysed using a simple percentage technique. The study found that 83.89% of SMEs had no access to finance, as most of them were not within reach of financial institutions. Instead, they relied heavily on self-help groups and other means to meet their financial needs.

Wiklund and Shepherd (2005) confirmed that AF is of paramount importance in boosting SMEs' performance. In contrast, Shariff and Peou (2008) reported that AF did not influence performance, as did Shariff, Peou and Ali (2010). AF used as moderator in a replicative study by Frank, Kessler and Fink (2010) confirmed that it did not moderate the relationship between entrepreneurial orientation and performance in a configuration model. Mazanai and Fatoki (2012), however, posited that AF was directly related to SMEs' performance. Further confirmation based on RBV was that the basic tool leading to SMEs' performance is access to resources, specifically financial capital (Fonseka *et al.*, 2013; Zou *et al*., 2010) and Pecking order theory (POT) is closely related to SMEs' AF, suggesting a hierarchical choice of available financing (Chen & Chen, 2011).

However, the majority of studies reviewed agree that AF is an important construct that can predict SMEs' performance. It is therefore expected that AF can serve as a moderating variable in this study, because a moderating variable is one that has a strong contingent effect on the relationship between the predictor and criterion variables (Sekaran & Bougie, 2010). Furthermore, there is a dearth of studies examining the moderating role of AF on the relationship between intangible

resources and SMEs' performance. Accordingly, this study conceptualises AF as a means of SMEs obtaining financial capital (either internal or external financing) with reduced or absent of financial and non-financial barriers. Research has found that entrepreneurial strategies require considerable financial resources to be successful (Wiklund & Shepherd, 2005). This suggests that businesses that face performance constraints, in terms of limited strategies resources, can be superior performers if they have a high AF, therefore, the relationship between EAW, ESE, VBP and SMEs' performance depend on AF.

2.13 Underpinning Theories

Theory is a testable formal explanation of some events; it includes predictions of how things relate to one another. It consists of a logical set of general propositions that offer a coherent explanation of some phenomenon and the way other things correspond to this phenomenon (Zikmund, Babin, Carr & Griffin, 2012). Various theoretical approaches have been used in studying available resources and the performance/outcome of a firm. The present study is built on the platform of two theories: the Resource Based View (RBV) and the Pecking Order Theory (POT).

2.13.1 Resource Based View (RBV)

The emergence of RBV can be traced back to the work of Penrose in 1959, in which he emphasised that a firm should be considered as a pool with both human and physical resources in an organisational structure. RBV also recognised the importance of resources in increasing a firm's performance. It assumes that a firm's competitive advantage rest on its capacity to exploit the accessible package of

valuable tangible and intangible resources (Barney, 1991; Rumelt, 1987; Wernerfelt, 1984). These resources are valuable if they enable the firm to effectively exploit available opportunities and embrace strategies to maintain competitive advantage (Marshall, McIvor, & Lamming, 2007; McIvor, 2009).

Hafeez, Malak and Zhang (2007) categorise resources into intellectual assets and physical assets. Intellectual assets include employee skills, organisational knowledge, tacit knowledge and individual competencies (attributes) which are intangible; and physical assets (plant and equipment) are easily distinguished by being visible or having a tangible existence.

Barney (1991) contended that these resources must be valuable, rare, inimitable and non-substitutable (VRIN). Specifically, RBV was developed as a theory that aims at explaining performance; it is opposed to market power and is driven by resources that are heterogeneous. According to Penrose (1959), businesses are the collection of resources that give the firm an upper hand (competitive advantage). Competitive advantage is considered as the ability of a firm to embrace strategies that are qualitatively inventive and at the same time not utilised by contenders or potential contestants (Barney, 1991).

In 1991 Barney offered the well-known explanation of RBV by describing a firm's resources as the capabilities, assets, knowledge, procedures and other characteristics that it can use to articulate as well as to implement viable strategies. Assets or individuals' attributes are resources that can be used by the firm in a strategic way to maintain sustainable competitive advantage (Daft, 2009).

Fundamentally, there are two parts to RBV. First, capabilities, assets, procedures, awareness and characteristics influencing the firm should be poles apart from its contenders' (heterogeneity). Secondly, the immobility of the resources, i.e. the differences with other firms, must be sustained over a long period (Barney, 1991). Heterogeneity is necessary in achieving competitive advantage, while immobility of resources means the difficulties encountered by competitors in copying the strategy of the firm that possesses the resources.

Consequently, firms can achieve competitive advantage if their resources are not the same across all firms. It is not easy to transfer these resources from one firm to another and they cannot be copied before or after implementation (Peteraf, 1993). Godfrey and Hill (1995) argued that RBV tries to discover the components that influence different performance outcomes between firms, through the gathering of factors of production, or heterogeneous resources.

Barney (1991) and Godfrey and Hill (1995) classify a business's resources (assets) as organisational, physical and human. Physical assets are tangible, and human and organisational assets are intangible. Human resources are those identified with individual traits, incorporating preparation, knowledge, aptitudes, judgment and performance capacities of the people within the organisation. Organisational assets are the firm's characteristics, which include cultural strength, environmental scanning strategies, reporting structure and relationship with its host environment. In a nutshell, RBV explains how organisations develop, combine and deploy resources and capabilities to achieve above-average returns and competitive advantage (Akingbola, 2013).

Entrepreneurship has been acknowledged as an intricate part of the RBV framework (Conner, 1991; Rumelt, 1987), and in strategic management RBV itself has become a dominant paradigm (Peteraf, 1993). The focus of most RBV research is on intangible assets; for example, entrepreneurial characteristics (Finkelstein & Hambrick, 1996; Huselid, 1995; McIvor, 2009; Penning et al., 1998); information (Bennett & Robson, 2004; Sampler, 1998); dynamic capabilities (Ambrosini, Bowman, & Collier, 2009; Teece, Pisano, & Shuen, 1997; Teece & Pisano, 1994); and knowledge (Grant, 1996; Hafeez et al., 2007; McIvor, 2009; Nonaka, Toyama, & Konno, 2000; Spender & Grant, 1996). Consequently, EAW, ESE and VBP are intangible and valuable resources that will give a firm an advantage over its competitors.

EAW and ESE are entrepreneurial characteristics that involve the translating of opportunity recognition in defining the organisational mission to achieve competitive advantage (Alvarez & Barney, 2007). They are perceived as heterogeneous, complex and unique entrepreneurial attributes, such as the firm's strengths, knowledge and ability to discover and exploit existing entrepreneurial opportunities that bring economic value, and are not known by competitors (Alvarez & Barney, 2007; Kirzner, 1979; Schumpeter, 1934; Shane & Venkataraman, 2000). Identifying the right entrepreneurial opportunities and the right settings are required for success (Timmons & Spinelli, 2004). These in essence will foster a firm's performance.

EAW and ESE are a firm's VRIN resources and a high level could lead to entrepreneurial success. Firms with efficacious entrepreneurs have the ability over others to comprehend opportunity (Timmons & Spinelli, 2004). They are more active in business in terms of identifying, exploiting and implementing new ideas and

products, in response to the competitive environment. Thus, RBV indicates that firms with VRIN resources such as EA and ESE will be likely to perform better than those without such resources.

VBP is the VRIN resource that can help the firm to use information about possible decisions concerning exploitation of entrepreneurial opportunities and the probabilities related with potential outcomes (Alvarez & Barney, 2007; Miller, Fern, & Cardinal, 2007). It enables the firm to outperform its competitors by planning strategies that are inimitable for marketing, financial and operational activities. Firms conduct in-depth feasibility analyses and prepare VBPs to enhance their chances of success (Alvarez & Barney, 2007; Miller et al., 2007). A VBP is a valuable resource that offers an advantage for greater performance (Choi & Shepherd, 2004).

In accordance with the nature of the VRIN resources involved in this study, RBV theory will be used as an underpinning theory; sustainable competitive advantage depends on this package of valuable internal and external resources.

2.13.2 Pecking Order Theory (POT)

Several theories have been developed related to business financing. One of the earlier theories, the Static Trade-Off Theory, describes the formulation of a firm's capital structure. It was followed by Agency Theory and the Pecking Order Theory (POT) (Chen & Chen, 2011). According to Vasiliou, Eriotis and Daskalakis (2009), the theory most closely related to SMEs' AF is POT, which was developed as a result of asymmetric information in financial markets. Another reason for POT is external

financing transaction costs; it holds that entrepreneurs embrace more information related to the prospects and conditions of their firms than do outside investors.

Myers and Majluf (1984) argued that entrepreneurs might decide not to become involved in lucrative investments if the financing option is costly or risky. POT assumes that they will have a preference for their retained earnings to finance their projects, rather than hybrid or debt forms of finance (convertible loans), or external equity (Myers & Majluf, 1984). SMEs in particular seem to develop structures that have a minimum amount of debt rather than the maximum. Owner/managers have no wish to yield part of their ownership, preferring to use their retained profits so as to uphold control of their assets as well as the operations of the business (Cassar & Holmes, 2003). POT is adopted in this study, suggesting a hierarchical choice of available financing.

AF is one of the firm's tangible assets (Harris & Raviv, 1991). POT predicts that firms with a high level of tangible assets will be less exposed to asymmetric information problems and reduce agency costs (Chen & Chen, 2011). SMEs' performance is a potential determinant of capital structure. Accordingly, they prefer to fund all projects using internal sources if possible; if there are asymmetric information problems or insufficient retained earnings, SMEs tend to use debt financing (Chen & Chen, 2011; Frank & Goyal, 2003) in order to maximise a high level of performance.

Accordingly, access to more resources facilitates EAW, ESE and VBP. Access to financial resources has all the earmarks of being of specific significance to SMEs.

Financial capital is the most non-specific kind of asset and can generally effectively be converted into other types of resources (Dollinger, 1999). Thus, resource constraints in other areas can to some extent be mitigated by access to financial resources. Further, SMEs habitually face difficulties obtaining equity and debt financing, putting severe restrictions on their development (Stanworth, & Grey, 1991), but SMEs involved in striving for high performance will have ‘‘a very great need for financial resources’’ (Greene & Brown, 1997, p. 170). This is reflected in the venture capital industry that provides huge totals of money to SMEs yet commonly just to innovative firms with the capability of achieving higher performance (Zacharakis & Meyer, 2000).

More specifically, access to financial capital should interact with EAW, ESE and VBP in explaining performance. Financial capital provides firms the slack to explore different avenues regarding new procedures and imaginative undertakings that might not be approved in a more resource-constrained condition (Argote & Greve, 2007). Financial relaxed fosters a culture of experimentation because it protects firms from the uncertain outcomes of those projects, facilitating experimentation with new strategies and practices (Bourgeois, 1981). Thus, financial capital should stimulate a firm’s performance. Such a process needs reinvestments and should be considerably easier if the firm has access to more financial capital. In summary, the successful implementation of an EAW, ESE and VBP as strategic resources appears to require access to significant resources (Shirokova, Vega, & Sokolova, 2013).

2.14 Research Framework

The focus of this study is to examine the relationship between entrepreneurial awareness, entrepreneurial self-efficacy, viable business plan and SMEs' performance, with the moderating role of access to finance. Figure 2.3 presents the research conceptual framework:

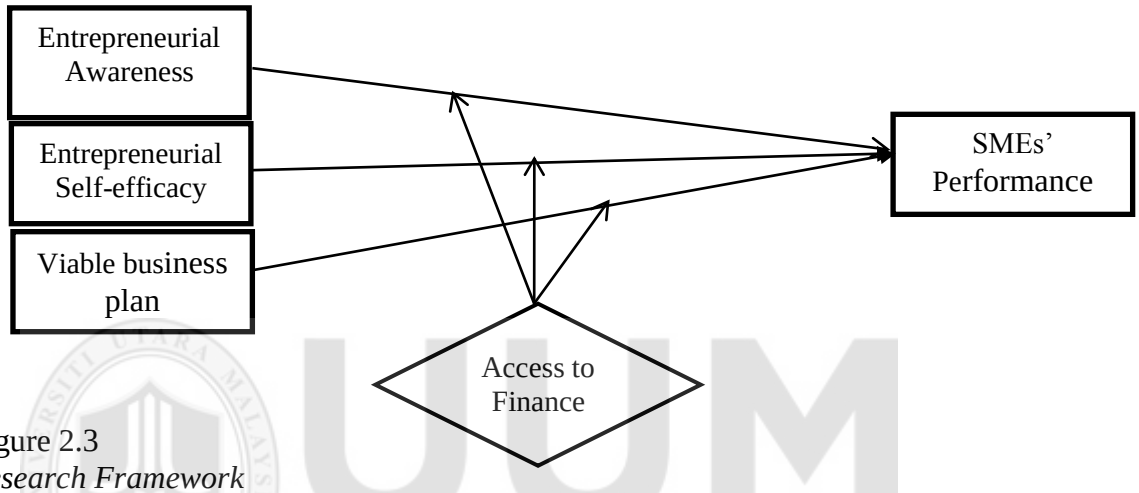

Figure 2.3
Research Framework

2.15 Hypothesis Development

This section presents the hypotheses developed by this study based, on the research questions and objectives and the literature review.

2.15.1 Entrepreneurial Awareness and Performance

Despite the fact that critics such as Subhani and Osman (2011) and Ajemunigbohun, Ademola and Iyun (2014) do not believe that EAW aids performance outcome, evidence from other authors show the converse (Singh & Belwal, 2008; Tang, Kacmar, & Busenitz, 2012; Thong et al., 2013). There is a positive relationship between brand awareness and market performance (Homburg et al., 2010). A study

by Panian and Spremić (2004) indicated a significant relationship between the degree of awareness and managers' perceptions of e-business. Based on the above arguments, the following hypothesis is proposed:

H1: Entrepreneurial awareness is significantly related to SMEs' performance.

2.15.2 Entrepreneurial Self-efficacy and Performance

Several studies empirically supported that ESE plays a vital role in influencing performance. For instance, Hmieleski and Corbett (2008) reported a positive relationship between ESE and performance. Anna, Chandler, Jansen and Mero (2000) and Forbes (2005) found a positive relationship between ESE and new business enterprise performance. In contrast, some studies reported that high ESE may have a negative effect under certain conditions (Hmieleski & Baron, 2008; Oyeku et al., 2014). However, the following hypothesis is proposed:

H2: Entrepreneurial self-efficacy is significantly related to SMEs' performance.

2.15.3 Viable Business Plan and Performance

Empirical evidence has established a relationship between planning and business enterprise performance, seen from different perspectives and with different outcomes. For instance, Chwolka and Raith (2012) reported that planning is important in entrepreneurs' decisions on opportunity evaluation, and has a significant impact before market entry. Similarly, Gartner and Liao (2005) and Shane and Delmar (2004) opined that business planning reduces the high mortality of nascent

business enterprises. Strategically, planning can lead to increase in performance (Norman et al., 2009). Hopkins and Hopkins (1997) reported that the strategic planning process has a direct positive effect on banks' financial performance. In contrast, Honig and Karlsson (2004) found no relationship between the survival of growing enterprises and business planning. Hence, planning does not necessarily lead to improved financial performance (Hopkins & Hopkins, 1997). In the same vein, formal business planning was found not to improve business performance and successful growth (Mazzarol *et al*., 2009). Gruber (2007) found a significant negative coefficient in the association between marketing objectives and marketing planning. However, in view of the above arguments, the following hypothesis is proposed:

H3: Viable business plan is significantly related to SMEs' performance.

2.15.4 Access to Finance as Moderator

A number of empirical studies (Beck & Demirguc-Kunt, 2006; Demir & Caglayan, 2012; Fonseka *et al*., 2013; Krishnan *et al*., 2014; Kuzilwa, 2005; Rahaman, 2011; Rogerson, 2008; Xavier *et al*., 2013; Zou *et al*., 2010) stressed that access to finance (AF) serves as an important variable for predicting SMEs' performance. Mazanai and Fatoki (2012) also posited that AF is directly related with SMEs' performance. It is a critical issue whose failure is responsible for the poor performance of Nigerian SMEs (SMEDAN, 2012).

AF was used as moderator in a study of Frank *et al*. (2010), while Wiklund and Shepherd (2005) reported no moderating effect on the entrepreneurial orientation-

performance relationship in their configuration model. Replication of the moderating relationship is therefore needed (Frank et al., 2010; Wiklund & Shepherd, 2005). Research has also found that entrepreneurial strategies require considerable financial resources to be successful (Wiklund & Shepherd, 2005). This suggests that businesses that face performance constraints, in terms of limited strategies resources, can be superior performers if they have a high AF. More specifically, access to financial capital should interact with EAW, ESE and VBP in explaining performance. Financial capital provides firms the slack to explore different avenues regarding new procedures and imaginative undertakings that might not be approved in a more resource-constrained condition (Argote & Greve, 2007). In summary, the successful implementation of an EAW, ESE and VBP as strategic resources appears to require access to significant resources (Shirokova *et al*., 2013). Therefore, the relationship between EAW, ESE, VBP and SMEs' performance depend on AF. In view of the above, the following hypotheses are proposed:

H4: Access to finance moderates the significant relationship between entrepreneurial awareness and SMEs' performance.

H5 Access to finance moderates the significant relationship between entrepreneurial self-efficacy and SMEs' performance.

H6: Access to finance moderates the significant relationship between viable business plan and SMEs' performance.

2.16 Summary

This chapter delivers a general overview concerning all the matters deliberated in it. It introduces various issues, such as development of SMEs in Nigeria, SMEs' performance, and the main problems facing SMEs' performance in Nigeria. The chapter also observes the meaning as well as the theoretical understanding of both dependent (SMEs' performance) and independent variables (EAW, ESE and VBP) with the moderating variable (AF) respectively. Finally, other issues concerning the relationship of each of the independent variables to the dependent variable were established leading to the development of the hypotheses.

Table 2.3
Summary of some of the reviewed literature

Author	**Variables**	**Research Setting**	**Methodology**			**Data Analysis Techniques**	**Major Findings**
			Research Design	***Sample & Response rate***	***Data Collection***		
Wong Kee Luen et al. (2013)	Strategic planning and Business performance	Malaysia	Survey	Simple Random, 50 Responses	E-mail Questionnaire	Regression, SPSS 17	Positive
Olusola, (2011)	Accounting skill and performance	Nigeria	Survey	Simple Random	Questionnaire	Chi-square	Positive
Seghers, Manigart, and Vanacker, 2009	Human and Social Capital and Entrepreneurs' Knowledge of Finance Alternatives	Belgian	Survey	Simple Random	Questionnaire	Regression	Positive
Kanyabi & Devi, (2012)	Owner managers knowledge, competitive intensity, complexity of marketing decision and performance	Iran	Survey	Simple Random, 770 responses	Questionnaire	Regression	Positive
Brinckmann et al. (2010)	Business planning and performance	N/A	Evidence-base research approach	46 studies	International Data base	Meta-analysis	Positive

Author	**Variables**	**Research Setting**	**Methodology**			**Data Analysis Techniques**	**Major Findings**
			Research Design	***Sample & Response rate***	***Data Collection***		
Mandy, (2009)	Innovativeness and performance	Malaysia	Survey	Simply Random, 121 responses	E-mail Questionnaire	Regression, SPSS	Positive
Kessy, (2009)	Microfinance and enterprises performance	Tanzania	Survey	-	Questionnaire	Independent t-test	Not significant
Minai and Lucky (2011)	Individual determinant, external factors, firm characteristics, location and firm performance.	Nigeria	Survey/ Cross sectional	Simple Random, 182 responses	Questionnaire	Descriptive statistics/ hierarchical multiple regression/ SPSS 17	Moderating role of Location on the relationship between individual determinants and firm performance is not significant, while it is in the other construct relationship
Shariff, Peous and Ali, (2010)	Entrepreneurial value, firm financing, management, marketing practice and performance.	Cambodia	Survey	Simple Random/ 220 responses	Questionnaire	hierarchical multiple regression	Positive
Kessy & Temu, (2010)	Training and SMEs	Tanzania	Survey	Simple	Questionnaire	t-test	Male owned

Author	**Variables**	**Research Setting**	**Methodology**			**Data Analysis Techniques**	**Major Findings**
			Research Design	***Sample & Response rate***	***Data Collection***		
	performance			Random/ 225 Responses			enterprises have the higher level of sales revenue, assets and number of employees than female owned enterprises.
Thong et al., (2013)	Monthly income, age, gender, social culture, marketing and promotional activities, educational level and level of awareness of microfinance programmes.	Malaysia	Descriptive and Causal design	Cluster Sampling/ 304 Responses	Questionnaire	Multiple Regression	Educational level and marketing and promotional activities are positively related with the level of awareness, while age, monthly income, social culture and gender are negative relation with level of awareness.
Ajemunigbohun, Oreshile and Iyun,	Awareness and Accessibility	Nigeria	Survey	Simple Random/ 60	Interview	Kolmogorov-	Awareness creation is not encouraged

Author	**Variables**	**Research Setting**	**Methodology**			**Data Analysis Techniques**	**Major Findings**
			Research Design	***Sample & Response rate***	***Data Collection***		
(2014)	of micro-insurance product			responses.		Smirnove	among the Nigerian insurance companies and it is not significantly reflect among the life of many insuring populace.
Subhani and Osman (2011)	Brand awareness, consumers' perception and consumer/ brand loyalty	Pakistan	Survey	Simple Random/ 280 responses	Questionnaire	Chi-square	No significant relationship between brand awareness and brand/ consumer loyalty.
Klarmann and Schmitt, (2010)	Brand awareness and market performance	Germany	Survey	Cross-firm Cross industry sampling 310 responses	Questionnaire	Structural equation modelling	Positive
Panian and Spremic, (2004)	Degree of awareness and business selection	Croatia	Survey	Simple Random/ 400 responses	Questionnaire	Correlation	Significant

Author	**Variables**	**Research Setting**	**Methodology**			**Data Analysis Techniques**	**Major Findings**
			Research Design	***Sample & Response rate***	***Data Collection***		
Mansor et al. (2012)	Service quality, promotion and technology; and awareness of e-Banking	Malaysia	Survey	Quarter Sampling/ 358 Responses	Questionnaire	Pearson correlation and Regression analysis	Significant
Ugwu and Ezeani (2012)	Entrepreneurship awareness and entrepreneurship skill	Nigeria	Survey	purposive sampling	Questionnaire	Mean and Simple percentage	Not aware
Montiel-Campos, et al. (2011)	Entrepreneurial orientation and firm performance moderating role of technology founder-managers moral awareness		Survey	Simple Random/ 126 response rate	E-mail Questionnaire	Regrassion	Positive
Ballout (2009)	Career Commitment, Career Successs and Self-efficacy.	Lebanon	Survey	Snowball Sampling	Questionnaire	Hierarchical Multiple Regrassion	positive
Herath and Mahmood (2014)	entrepreneurial self-efficacy and SME entrepreneur's performance	Sri Lanka	Survey	Random Sampling/ 436 response rate	Questionnaire	AMOS	Mixed Result

Author	**Variables**	**Research Setting**	**Methodology**			**Data Analysis Techniques**	**Major Findings**
			Research Design	***Sample & Response rate***	***Data Collection***		
Hmieleski and Corbett, (2008)	Improvisational behavior, Entrepreneurial self-efficacy and work satisfaction	United State	Survey	Random Sampling/ 115 response rate	E-mail Questionnaire	Hierarchical Regression analysis	Negative Moderating effect
Judeh (2012)	Job characteristics, self-efficacy and employee performance	Amman	Survey	Random sampling/ 279 response rate	Questionnaire	SEM	In conclusive result

Author	**Variables**	**Research Setting**	**Methodology**			**Data Analysis Techniques**	**Major Findings**
			Research Design	***Sample & Response rate***	***Data Collection***		
Pan, Sun, & Chow, (2011)	Self-efficacy, supervisory support, employee productivity, job satisfaction	China	Quantitative	Random sampling/ 226 response rate	Questionnaire	Multiple regression	Mixed result
Gruber, (2007)	Planning and Venture performance	Germany	Survey	Random sampling/ 142 response rate	E-mail Questionnaire	Correlation coefficient	Significant negative coefficient

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter presents the methods employed for conducting the present study. The researcher determines the research paradigm, the study population, sampling method, power analysis and sample size as well as the instruments and measures adapted from previous studies. Assessment of the validity and reliability of the measurements is described, as are the pilot test and the procedures for data collection and analysis.

3.2 Research Paradigm

Research paradigm is a model, pattern and frame of reference which a researcher observed and recognized (Babbie, 2012). In other hand, the philosophy which influences the technique and method on how a research is to be constructed and the explanations on the findings are known as a paradigm (Neuman, 2014). Research paradigms have a significant role on the approach in which the research is conducted. There has been a long-standing epistemological school of thought among scientific philosophers and researchers on how research is designed. Basically, there are two schools of thought: The positivism and interpretivism (Bryman, 2012). In the literature these two epistemological paradigms are described as follows.

Table 3.1
Positivist and Interpretivist approach to research

Points of distinction	Positivist paradigm	Interpretivist paradigm
Field of study Concepts	Natural Sciences, Structure, Social and Natural fact	Human sciences Meaning and social developments, learned human phenomena.
Methods	Quantitative, Statistical Inference (hypothesis testing), cause and effect relationships, measurement	Qualitative, generation of hypotheses, interactions, processes
Scope	Seeks explanations for things, generalisations, laws, considers reality as being objective, tangible and unique.	Seeks to understand people, context dependent.
Researcher's role	Uninvolved observer	Actively involved
Analysis	Objective, abstract, fixed, value free	Subjective, grounded flexible, political

Source: *Developed for the study*

Positivist paradigm: In this, researcher intends to predict and explain the happenings in the world through causal relationships and irregularities searching and among its constituent elements (Burrell and Morgan ' s, 1979). Hassard (1995) believed that by positivists the objectivity and externality of the world can be unravelled. Hence, in ensuring the objectivity, while observing the subjects they have to (researchers) remained independent, and to draw a conclusion to examine the proposed relationships they have to develop hypotheses (Gray, 2013). According to Antwi and Hamza, (2015) positivists examine relationships based on the cause-and-effect and basic laws, and make interpretation generally of everything for the facilitation of simplistic analyses.

Because the method application related to natural science is favoured by positivists to grasp social reality and beyond (Cohen, Manion, & Morrison, 2013), the quantitative approach and experiments were adopted by them for testing hypothetical deductive generalizations (W. Chen & Hirschheim, 2004). Furthermore, Gray (2013) stressed on the significance of proper procedure for data-collection, explanation and testing of the behavioural patterns.

Mukherji and Albon (2009) emphasized that in generalizing the obtained results from a sample of a certain population, it depends on the positivist paradigm. The application of Positivism is widely recognized in management and behavioural-science research where the quantitative research method and tools which are survey and experiment which seek to establish causal relationships are applied by positivists (Brown, R., & Brignall, 2007).

There is quite a difference between the philosophies of interpretivist paradigm and those of the positivist paradigm. The key research objectives in the interpretivist paradigm is the social phenomenon observations which are aimed at finding out the facts and truth about the reality and which tend to achieve social science-related discoveries (Tuli, 2011). The behaviours of human beings are in accordance with socially constructed values instead of causal relationships; interpretivists have the belief that human beings are behaving according to socially constructed values rather than to causal relationships (S. Sarantakos, 2012).

Marshall and Rossman (2014) emphasized that for a clear understanding of social events, interpretivists are engaged in the social world they belong so as to gather experience in relation to the social reality as the participants do the same. Amaratunga, Baldry, Sarshar, and Newton (2002) added that the use of naturalistic and qualitative methods are considered by interprevists since their approach is based on the realization and explanations of a phenomenon based on its situation instead of the basic laws or external reasons. Therefore, O'hEocha, Wang, and Conboy (2012) stated that the framework of the interpretivist depended on the methods qualitative data collection, for instance, observations, interviews, focus groups and case studies.

A conceptual research model and its fundamental hypotheses are intended to be tested in this study by relying on the approach of a survey-based quantitative research since the positivism paradigm is more suitable for this study for the achievement of the research objectives, instead of interpretivism.

3.3 Research Design

According to Zikmund, Babin, Carr and Griffin (2012), research design is classified into i) non-experimental/survey designs which consist of questionnaires and interviews; ii) historical design which involves the application of observation and of secondary information, and iii) experimental design carried out in a research laboratory.

Considering the present research's hypotheses and framework, a quantitative approach was employed. Quantitative study is used in response to research questions on the associations between variables measured purposely for predicting, controlling and explaining phenomena (Leedy & Ormrod, 2005). A single cross-sectional survey design was used for data collection, i.e. the researcher collects data at a single point and time and only once during the whole study (Sekaran & Bougie, 2010). The cross-sectional survey method is appropriate here to achieve the overall goal of the study.

The target population is SMEs operated in the north-west Nigerian states of Kano, Kaduna and Sokoto, chosen for cost and time savings. 73% of the total SMEs in the north-west region are located in these three states (SMEDAN, 2012).A survey design via questionnaire was chosen as the tool for the collection of data. A quantitative

approach with a specific end goal was used to depict the attributes of the SMEs, summarise the information and test the expressed hypotheses.

The questionnaire was administered personally, as this is the best method to collect all the complete responses in a short period of time (Sekaran and Bougie, 2011). It enabled the researcher and research assistant to distribute questionnaires to a large number of targeted respondents at one time, in different places.

3.4 Operationalisation and Measurement of Variables

Cavana, Delahaye and Sekaran (2001) stated that variables are non-figurative in nature and do not have any meaning in the study unless they are operationally defined. Operational definition is the description of how a researcher defines all constructs in a study; such definitions are peculiar to that study (Creswell, 2012).

Likewise, measurement of variables was made in order to provide uniformity, adequacy, accuracy, consistency, precision and comparison in the process of assessment and description of particular concepts (Sotirios Sarantakos, 2005). Thus, the measurement procedure includes stating the variables that serve as representations for the constructs (Hair, Wolfinbarger, Ortinau & Bush, 2008). Specifically, this study measured five variables: SMEs' performance, EAW, ESE, VBP and AF. Measurement is related to the number of items, determined by rule of thumb, that each variable must to be reflected by at least three items (Hair, Black, Babin, Anderson & Tatham, 2006). In this study, the Likert scale was found to be appropriate for all the items, given the nature of the data being collected; the respondents were asked to indicate their responses to each question on a seven-point

scale (Alreck & Settle, 1995). Therefore, this section provides definitions of the constructs and the selection of the items for each construct.

The seven-point Likert scales was preferred, as having a mid-point offers more accurate results (Krosnick & Fabrigar, 1997) and seven points give a wider choice than five for respondents to better express their stand (Schuman & Presser, 1981; Souro, 2010). Table 3.2 summarises the variables' measurement.

Table 3.2
Measurement of Variables

Variable	Dimension	Item	Source
SMEs' performance	Uni-dimension	6	Suliyanto and Rahab (2012)
Entrepreneurial awareness	Uni-dimension	5	Nambisan et al. (1999)
Entrepreneurial self-efficacy	Uni-dimension	6	Wilson, Kickul, and Marlino (2007)
Viable business plan	Uni-dimension	15	Perry (2002) and Stewart (2003)
Access to finance	Uni-dimension	8	Aminu (2015)

Source: *Aminu (2015); Nambisan et al. (1999); Perry (2002); Stewart (2003) and Suliyanto and Rahab (2012)*

The following subsections explain the measurement items for these variables in details.

3.4.1 SMEs' Performance

The operational definition of SMEs' performance in this study, derived from the literature review, is organisational successes that cover operational and financial outcomes; performance is divided into financial and non-financial. Financial

performance refers to earnings (profitability, sales growth, and return on investment) that are related to enterprises' efficiency. Non-financial performance is associated with brand loyalty, customer base, technology, innovation, quality of human resources, image and reputation. The study operationalises performance as a one-dimensional construct.

Suliyanto and Rahab's (2012) scale was adapted to measure performance using six items with Cronbach's alpha 0.987. The scale was rooted in the study of Keskin (2006) and is in line with suggestions that performance measurement should comprise both financial and non-financial elements (Kaplan & Norton, 2001; Venkatraman & Ramanujam, 1986). On the seven-point scale, 1 = Strongly disagree; 2 = Disagree; 3 = Somewhat disagree; 4 = Neither agree or disagree (Neutral); 5 = Somewhat agree; 6 = Agree; 7 = Strongly agree, where respondents were asked to rate their degree of agreement with the performance of their firm. Table 3.3 presents the items used to measure SMEs' performance.

Table 3.3
Measurement of SMEs Performance

Items	Item adapted from	Scale
1. Compared to last three years, our product reaches a wider market 2. Compared to last three years, our enterprise increases product sales 3. Compared to last three years, our enterprise's profit has increased 4. Compared to last three years, the level of complaints from customers decreased 5. Compared to last three years, the number of our employees has increased 6. Compared to last three years, the number of our customers has increase	Suliyanto and Rahab (2012)	Seven-point scale Where: 1= Strongly Disagree 2= Disagree 3= Somewhat disagree 4= Neither agree or disagree (Neutral) 5= Somewhat agree 6= Agree 7 = Strongly agree

Source: *Suliyanto and Rahab (2012)*

3.4.2 Entrepreneurial awareness

EAW was operationalised in this study as the state of entrepreneurs' knowledge on the existence and importance of opportunities for entrepreneurial activities, and their success, that is the entrepreneur's knowledge of the capabilities of entrepreneurial opportunities, their features, potential, and cost and benefits.

The measurement of EAW was adapted from the scale of Nambisan et al. (1999). With five items and Cronbach's alpha 0.86, this scale was also validated by Martins and Kellermanns' (2004) method and found to have a construct validity of 0.82. The same seven-point Likert scale was used, with respondents asked to rate their degree of agreement with their level of awareness of entrepreneurial opportunity for their organizational success. Table 3.4 presents the items used to measure EAW.

Table 3.4
Measurement of Entrepreneurial awareness

Items	Item adapted from	Scale
1. Our enterprise is aware of the existence of available entrepreneurial opportunities. 2. Our enterprise is aware of the procedure of accessing available entrepreneurial opportunities. 3. Our enterprise is aware of the nature of benefit to be derived from the available entrepreneurial opportunities. 4. Our enterprise is aware of the extent of the benefits to be derived from available entrepreneurial opportunities. 5. Our enterprise is aware of the types of the business activities that can take advantage of the available entrepreneurial opportunities.	Nambisan et al. (1999)	Seven-point scale Where: 1 = Strongly disagree; 2 = Disagree; 3 = Somewhat disagree; 4 = Neither agree or disagree (Neutral); 5 = Somewhat agree; 6 = Agree; 7 = Strongly agree

Source: *Nambisan et al. (1999)*

3.4.3 Entrepreneurial Self-efficacy

ESE is the entrepreneurs' judgement of their abilities to execute some courses of action required to attain an outcome. It is the perception of one's ability to achieve an expected outcome or the judgement of capabilities to organise and execute a particular course of action. ESE was measured on a scale adapted from that of Wilson et al. (2007), and consisted of six items on the same seven-point scale, with respondents asked to rate their degree of agreement with their ability to exploit the existing entrepreneurial opportunities for organisational success. Table 3.5 presents the items used to measure ESE.

Table 3.5
Measurement of Entrepreneurial Self-efficacy

Items	Item adapted from	Scale
1. Our enterprise has the ability to solve a particular problem 2. Our enterprise has the ability to manage its financial resources 3. Our enterprise has the ability to create business opportunity. 4. Our enterprise has the ability to influence its customers. 5. Our enterprise has the ability to maintain a positive outlook despite setbacks and negative feedback from competitors. 6. Our enterprise has the ability to make a critical decision relating to its operations.	Wilson, *et al.* (2007)	Seven-point scale Where: 1 = Strongly disagree; 2 = Disagree; 3 = Somewhat disagree; 4 = Neither agree or disagree (Neutral); 5 = Somewhat agree; 6 = Agree; 7 = Strongly agree

Source: *Wilson et al. (2007)*

3.4.4 Viable Business Plan

VBP was operationalised as entrepreneurial activities resulting in a written document that is sufficiently formal and substantial to provide direction for the development of business activities. This study adapted the measurement of Perry (2002) and Stewart (2003) with 11 items from the former and four from the latter, again on the seven-point scale. Respondents were asked to rate their degree of agreement on whether planning activity in the form of a written document appropriate to their business activities. Table 3.6 presents the items used to measure VBP.

Table 3.6

Measurement of Viable Business Plan

Items	Item adapted from	Scale
1. Our enterprise prepares a written sales forecast. 2. Our enterprise prepares a written staffing forecast. 3. Our enterprise prepares annual written cash requirement forecast. 4. Our enterprise prepares a written capital expenditure forecast. 5. Our enterprise analyses the strength of its competitors and prepare a written identification of strategies and measurable goals over a foreseeable future. 6. Our enterprise prepares a written plan that provides satisfied information requested by external financiers. 7. Our enterprise prepares a written plan for public relation purpose to satisfy information requested by customers, prospective investors and employment candidates. 8. Our enterprise monitors its progress in comparison with its plans frequently. 9. Our enterprise incorporate its major goals and objectives spelled out in its plans into its employee performance appraisal system. 10. Our enterprise prepares a plan for defined and anticipated products that customers buy in sufficient quantities that attract a return on investment. 11. Our enterprise prepares a plan on the anticipated cost of producing and selling its defined products. 12. Our enterprise has a written statement of Vision 13. Our enterprise has a written statement of mission 14. Our enterprise developed a plan that is consistent with the strength and weakness.	Q1-11 adapted from Perry (2002) and Q12-15 from Stewart (2003)	Seven-point scale Where: 1 = Strongly disagree; 2 = Disagree; 3 = Somewhat disagree; 4 = Neither agree or disagree (Neutral); 5 = Somewhat agree; 6 = Agree; 7 = Strongly agree

Table 3.6 (Continued)

1. Our enterprise review and evaluate its business plan.	

Source: *Perry (2001) and Stewart (2003)*

3.4.5 Access to Finance

AF is the opportunity of SMEs to easily access readily available financial resources with minimal or slight financial and non-financial barriers. Eight items were adapted from the scale of Aminu (2015) with Cronbach's alpha 0.74, in turn adapted from the work of Martin et al. (2007). The same seven-point scale was used. Table 3.7 presents the items used to measure AF.

Table 3.7
Measurement of Access to finance

Items	Item adapted from	Scale
1. Our enterprise is financed with personal money. 2. Our enterprise is financed with funds generated from retained earnings. 3. Our enterprise is financed with loans from friend and family. 4. Our enterprise has the collateral security required for external financing. 5. Our enterprise paid the interest rates charged on external financing. 6. Our enterprise source it finance from lease financing. 7. Our enterprise uses the trade credit facilities from suppliers to finance my business. 8. Our enterprise has sufficient financial information.	Aminu (2015)	seven-point scale Where: 1 = Strongly disagree; 2 = Disagree; 3 = Somewhat disagree; 4 = Neither agree or disagree (Neutral); 5 = Somewhat agree; 6 = Agree; 7 = Strongly agree

Source: *Aminu (2015)*

3.5 Control Variables

Based on previous work (Herath & Mahmood, 2014; Hmieleski & Baron, 2008; Hmieleski & Corbett, 2008; Mansor et al., 2012; Panian & Spremić, 2004), this study includes industry type, size and age of the firm as control variables, to ensure the quality of the results. The size of a firm may influence its behaviour and decision making concerning the exploitation of entrepreneurial opportunities and innovation. In this study, the size was determined by the number of employees. The age of the firm determines its ability to respond and learn appropriately, as a result of maturing behaviour and environmental perception. This study measured the age by the number of years the enterprise had been in existence. Finally, type of industry influences enterprise behaviour and its environmental characteristics (Forbes, 2005). Therefore, industry type was measured by asking respondents to indicate their main line of business.

3.6 Data Collection

Data collection is a method for acquiring information for research that needs a broad range of abilities and knowledge. Primary data is needed if the secondary data fails to accomplish the research objectives; it can be either quantitative or qualitative, gathered by observation, questionnaires or interviews (Hair *et al*., 2008). The following sub-sections cover determination of the study population, sampling size, sampling methods and unit of analysis.

3.6.1 Population

Sekaran and Bougie (2011) define population as the whole set of elements, events or people that the researcher needs to investigate; it is the whole subject of interest to be studied (Cavana et al., 2001). Thus, in this study the target population comprises the 12,009 SMEs located in Sokoto, Kaduna and Kano states (see Table 3.8 and Appendix E), for reasons already explained above (SMEDAN, 2013;NPC, 2006).

Despite the region's long history of commercial activities and the large number of SMEs, it is still has the highest rate of unemployment and poverty in the country (NBS, 2012). A further reason for selecting the north-western region is the accessibility of data, in terms of the willingness of the respondents to participate in the survey. Table 3.7 presents the population of the study.

Table 3.8
Population of the study

S/N	States	Population
1.	Kano	8,286
2.	Kaduna	2,882
3.	Sokoto	841
	TOTAL	**12,009**

Source: *SMEDAN (2013)*

3.6.1.1 Power Analysis and Sampling Size

Determining an appropriate sample size is essential in any survey research (Bartlett, Kotrlik, & Higgins, 2001). This implies the need for an appropriate sample size in order to minimise the total cost, sampling error, time and other human resources (Sekaran & Bougie, 2010). To minimise the total cost of sampling error, the power of a statistical test has to be taken into consideration (Bambale, 2014), and researchers

must critically view the sample size and issues of non-response as vital conditions in quantitative survey design (Bambale, 2014).

Researchers generally agree that the larger the sample size, the greater the power of a statistical test (Borenstein, Rothstein, & Cohen, 2001; Kelley & Maxwell, 2003; Snijders, 2005), and power analysis is a statistical procedure for determining an appropriate sample size (Bruin, 2006; Malakmohammadi, 2011). Hence, to determine the minimum sample for this study, *a priori* power analysis was conducted using G*Power 3.1 software (Faul, Erdfelder, Buchner, & Lang, 2009; Faul, Erdfelder, Lang, & Buchner, 2007).

Specifically, G*Power is an approach for validating the empirical findings of PLS path modelling in complex models (Akter, D'Ambra, & Ray, 2011). Power (1-β), which refers to the probability of obtaining a valid result, is computed by calculating the probability of rejecting the false null hypothesis (H0) when H1 is true (Baroudi & Orlikowski, 1989; Jacob Cohen, 1992). This study employed *a priori* analysis based on the three established parameters contributing to the dynamics of power: the significance level (α) which is 0.05, the sample size, and the effect size which is 0.15 (Cohen, 1988).

While early researchers had to use power charts and tables (Chin, 1998; Scheffe, 1959), efficient software such as G*Power 3.1.2 (Faul et al., 2009) now simplifies the task (Akter et al., 2011). To achieve a high degree of probability of producing significant results when the relationship is truly significant, Cohen (1988) and Baroudi and Orlikowski (1989) suggested that the power of statistical tests should be at least 0.8.

The computation of power analysis for this study with an adopted significance level (α) of 0.05 and effect size of 0.15 indicated that the sample size should be 146 and the actual power 0.9507965 (i.e. Power (1-β err prob) =0.95) obtained with of the three tested predictors, EAW, ESE and VBP and three interaction. Consequently, as can be seen from the Figure 3.1, 146 samples are required to test the model of the present study. This summarised as follows:

F tests - Linear multiple regression: Fixed model, R^2 increase

Analysis: A priori: Compute required sample size

Input:	Effect size f^2	=	0.15
	α err prob	=	0.05
	Power (1-β err prob)	=	0.95
	Number of tested predictors	=	6
	Total number of predictors	=	6
Output:	Noncentrality parameter λ	=	21.90000000
	Critical F	=	2.1644088
	Numerator df	=	6
	Denominator df	=	139
	Total sample size	=	146
	Actual power	=	0.9507965

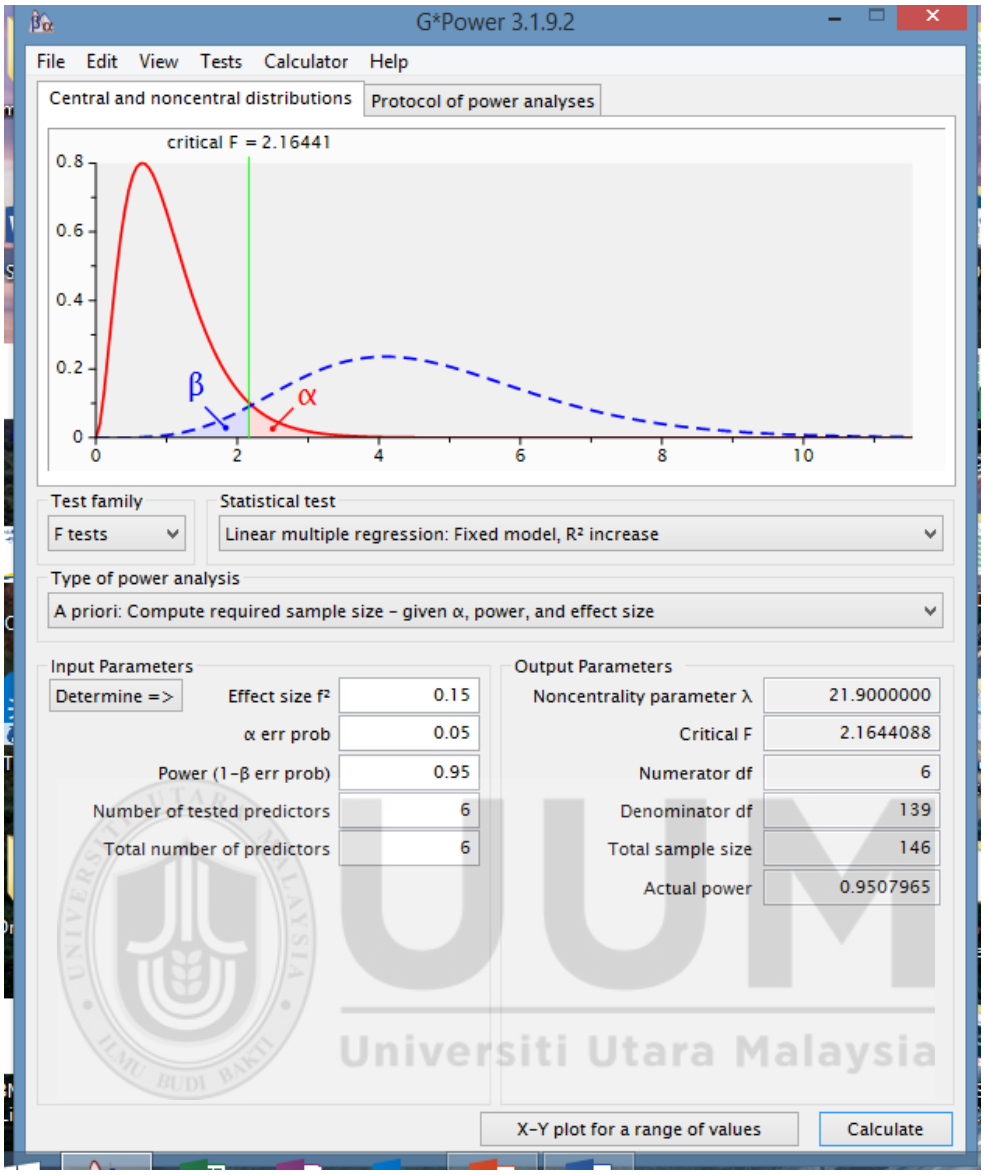

Figure 3.1
*G*Power Analysis*

Although the power analysis determines the minimum sample size required for a study, this value is independent of the study population. The population or a sample chosen from it should at least equal the actual sample as determined by the power analysis.

With the population of this study totalling 12,009 SMEs, it would be very difficult to study all the elements. An appropriate sample size that represents the this population was therefore determined, using Dillman's (2007) as shown below:

$$Ns = \frac{(NP)(P)(1-P)}{(NP-1)(B/C)^2 + (P)(1-P)}$$

Where:

Ns= the actual sample size

Np= size of population which is 12,009

P= the population proportion expected to choose among the two response categories is 0.5

B= sample error at 0.05 (5%)

C= confidence level at 0.05 is 1.96.

However, since the proportion of respondents agreeing to participate was not yet known, it was assumed that a 50/50 chance was more justifiable than 80/20 for a homogeneous sample (Dillman, 2007).

Therefore, the sample size of this study was calculated as follows:

$$Ns = \frac{(12{,}009)(0.5)(1-0.5)}{(12{,}009-1)(0.05/1.96)^2 + (0.5)(1-0.5)}$$

$$Ns = \frac{3{,}002.25}{12{,}008 \times 0.00065 + 0.25}$$

$$= \frac{3{,}002.25}{8.0552}$$

n= 372.70

From Dillman's formula, the sample size for the population of 12,009 SMEs is 372.70, or approximately 373, SMEs. This is considered appropriate, as it is higher than the actual size determined by power analysis. Furthermore, Roscoe's rule of thumb with regards to sample size suggested that the appropriate number of sample subjects for most research should be 30-500 (Hill, 1998), a figure supported by Sekaran and Bougie (2013) for the social sciences. 373 falls within this range. However, due to inevitable low response rates in survey studies, the researcher should take measures to mitigate a high non-response rate in order to deal with the possibility of non-response error that often renders research invalid (Bambale, 2014; Groves, 2006). Salkind's view for adjusting sample size (Bambale, 2014; Babbie, 2007, 2013, 2015; Bartlett et al., 2001) suggested that the size could be increased by 40% to 50% in order to cover the possibility of lost questionnaires and uncooperative subjects. Hence, as a result of the situation in the rate of the responses during this survey, sample size was increased by 50%. This was done after several phone calls and follow-up visits with free consultation were made by the researcher. This shown below:

$$y = \frac{1}{373} \times \frac{50}{100}$$

Where: y = Unknown increase of 50%

1 = Constant

373 = Actual sample size

100 = Percentage

Now Cross multiplication

$$= \frac{1}{373} \times \frac{50}{100}$$

$$= \frac{373 \times 50}{1 \times 100}$$

$$= \frac{18{,}650}{100}$$

=186

The new sample size was thus 373+186=559 SMEs; the lower the sample size, the higher the tendency for error, and the larger the sample, the more accurate the result will be (Alreck & Settle, 1995). Additional 186 questionnaires were increase making 559 questionnaires duly distributed to the randomly sampled SMEs' owner/managers.

Many studies in similar contexts and environments used this procedure (Bambale, 2014; Gorondutse & Hilman, 2014; Ibrahim & Mohd Noor, 2014; Shehu & Mahmood, 2014); they succeeded in minimising the anticipated problems of non-response rate and errors, and produced the expected results.

3.6.1.2 Sampling Method

According to Sekaran and Bougie (2013), sampling design can be classified as probability or non-probability. When elements of the population under investigation have a non-zero chance or the probability of being chosen as sample subjects, this is

known as probability sampling. It is used when there is a need for wider generalisability, and it itself classified into unrestricted simple random sampling and restricted complex probability sampling. In non-probability sampling, elements of the population are pre-determined as having a chance of being selected (Sekaran & Bougie, 2013).

Cluster sampling is a form of probability sampling which involves randomisation in the selection of elements within each cluster (Sekaran & Bougie, 2013; Zikmund et al., 2012). The population is divided into two or more distinct groups, and followed by random selection of elements from each cluster. It is a cheap and simple method (Saunders, Lewis, & Thornhill, 2009; Sekaran & Bougie, 2013), which was employed here, by allocating the three states (Kano, Kaduna and Sokoto) as three clusters, with samples selected randomly from each based on the respective sample size. Proportionate sampling draws substance from every cluster based on the proportion of elements in that cluster (Sekaran & Bougie, 2013). Using the sample frame (the list of SMEs from SMEDAN), 559 were thus randomly selected and the questionnaires distributed to the target respondents (SME owner/managers).

This was achieved by dividing the number of SMEs of each state (cluster) by total number of the entire population multiplies by 100. After the percentage of each state, the next step determines the proportion of subject from each state (cluster). Now the total number of the sample size is 373 divided by the number of percentage of each state (cluster). For instance, number of SMEs in Kano is 8,286 and the total sample size is 373, then 373 divided by total population (12,009) x population of SMEs in that state (Kano) which is equal to 257. (373/12,009x8286=257) Therefore, 257

representing 68.9% is the number of SMEs that represent Kano state. Same applied to determine the number of respondents for each state (cluster), the as presented in Table 3.9).

Table 3.9
Sample Frame

S/N	State	SMEs population by State	Proportionate sample for each State	Proportionate sample for each State with 50% increase
1.	Kano	8,286	257	386
2	Kaduna	2,882	90	134
3	Sokoto	841	26	39
	Total	**12009**	**373**	**559**

Source: *Developed for the Study*

3.6.1.3 Unit of Analysis

Creswell (2012) and Kumar, Talib, and Ramayah (2013) defined, the unit of analysis as representing who or what is being studied in the research, whether individual, organisation or group. Organisation is the unit of analysis in this study, with the owner/managers of SMEs in the three states as the respondents. Many examples of organisational units of analysis can be found (Al-Swidi & Mahmood, 2012; Aminu, 2015; Aminu & Shariff, 2014; Idar & Mahmood, 2011; Junaidu, 2012; Mazanai & Fatoki, 2012; Suliyanto & Rahab, 2012).

The owner/managers were selected to represent their respective firms, because they are in the best position to provide accurate information about the success or failure, the current practice and status of their respective firms. As representing the unit of analysis, they were expected to complete the questionnaire confidently and objectively, although they could assign any other authorised employee to respond to appropriate questions.

3.7 Data Collection Procedures and Strategy

The researcher chose the questionnaire technique because it allows for a wide scope of information to be gathered quickly and on a single occasion, and to limit errors arising from respondents' answers. For speed, drop-off and collection method was used, and the researcher employed the service of assistants who would fit into the environment. Hand delivery and collection is a good device in locations where a research culture is not likely to be recognised (Sekaran & Bougie, 2013), and it has been shown that the rate of return of postal questionnaires in Nigeria is very low, at 3- 4% (Asika, 1991; Ringim, 2012).

After pilot test were conducted separately and data collection for general study took place between 27 January and 29 May 2016. An official letter of introduction explaining the purpose of the study was composed at the Othman Yeop Abdullah Graduate School of Business (OYAGSB) introducing the researcher, and consequently researcher received a high level of cooperation from the participants.

The researcher divided the survey period into two portions. 149 valid questionnaires gathered in the period 27 January-4March were considered as early responses. Given the time constraints, a follow-up reminder was sent to the remaining respondents, extra effort was made in circulating and collecting the questionnaires every day, resulting in a further 205 valid questionnaires collected in the second period, 5 March-29 May. These two groups (early and late) were utilised in non-response bias tests on the variables under study. The following sub-sections discuss the process of designing the questionnaire, and the reliability and validity of the instrument.

3.7.1 Questionnaire Design

According to Sekaran and Bougie (2013), a questionnaire is a written set of reformulated questions usually with closed multiple options to which the respondents are required to record their answers. A structured questionnaire consisting of closed multiple-choice questions was used, consisting of five pages with six sections. Section 1 comprised 15 items measuring VBP; section 2 five items measuring EAW; section 3 six items measuring ESE; section 4 eight items measuring AF; and section 5 six items on the measurement of SMEs' performance.

A final section was added at the end to capture demographic information; inserting it at the beginning of the questionnaire might have led to a lower response rate (Zikmund & Babin, 2007). Table 3.10 summarises the questionnaire design.

Table 3.10
Summary of Questionnaire Design

Section	Items	Source
Section 1: in this section, respondents were asked to rate their degree of agreement with the potentiality of their prepared business proposal in exploiting the existence entrepreneurial opportunities for their organizational success.	15	Perry (2002) and Stewart (2003)
Section 2: in this section, respondents were asked to rated their degree of agreement with their level of awareness on entrepreneurial opportunity for their organizational success.	5	Nambisan, *et al.* (1999)
Section 3: in this section, respondents were asked to rated their degree of agreement with their business ability to exploit the existence entrepreneurial opportunities for their organizational success.	6	Wilson, *et al.* (2007)
Section 4: the degree to which entrepreneurs had easy and high access to the financial facilities and how several financial blocks were simplified to enhance access to finance facilities is measured in this section.	8	Aminu, 2015

Table 3.10 Continue

Section 5: this section is design to measure entrepreneurs' believe on their organizational success that covers operational and financial outcomes.	6	Suliyanto and Rahab (2012)
Section 6: consist the demographic information of the respondents.		Shehu and Mahmood (2014)

Source *Aminu, (2015); Nambisan, et al. (1999); Perry (2002); Shehu and Mahmood (2014); Stewart (2003); Suliyanto and Rahab (2012); Wilson, et al. (2007)*

3.8 Reliability and Validity Testing of Measures

Evaluating the consistency and accuracy of an instrument an essential step (Hair, Money, Samouel & Page, 2007). Even though the construct measures were drawn from the literature, they still needed to be validated and tested (Hair *et al*., 2007). To confirm the goodness of the measures of the modified (adapted) items, validity and reliability tests were piloted on the data, with SPSS vn 22.

The reliability of a measure embodies the degree to which it is error free and stable over time and across various items in the scale (Sekaran & Bougie, 2010). The most widely recognised test of inter-item consistency reliability is Cronbach's alpha coefficient, and this was used in the pilot study. Reliability of 0.7 is suggested by Hair et al. (2007).

The validity of the measuring instrument is the degree to which it measures what it was intended to measure (Saunders, 2011). Face and construct validity were conducted to certify the validity of the study constructs and confirm that the items truly measured what they had been operationalised to measure. The researcher

employed two methods (convergent validity and discriminant validity) to assess the study's construct validity (Hair, Joseph, Ringle & Sarstedt, 2013).

3.8.1 Pilot/Preliminary Test

A pilot test is a trial on a small part of the study before the actual full-scale study (Gay, Mills, & Airasian, 2006). The pilot test checked the validity and reliability of the study instrument as well as gaining some insight into the real conditions of the full-scale study, enabling the researcher to anticipate and correct possible problems in advance of the actual research. A pilot test was conducted in this study for the purpose of two main reasons, such as; "to test the validity and reliability of the survey instruments" secondly, "to get a glimpse of the real conditions of the impact assessment, which allows the researcher to anticipate potential problems and adjust when embarking on the actual research" (Aminu & Shariff, 2015). Though the items used in this study were adapted from different sources where their validity and reliability have been established, this study further confirm the reliability because of the fact that there are a lot of factors that may warrant changes as Hair *et al*. (2007) clearly pointed out.

Also based on the argument put forward by Forza (2002), the pilot study was undertaken in three different phases: first questionnaire was taken to academics who are experts in this area validated the contents and offered useful suggestions. Secondly, based on the suggestions offered by experts, the questionnaire was reproduced and distributed to some postgraduate students in Universiti Utara Malaysia to be able to see how they response to the items. Finally some items were re sentenced for easy understanding.

Validity and reliability of the instrument is the primary concern of the pilot study. In line with Dillman's (2007) guidelines, a total of 100 questionnaires were sent out for the pilot survey, of which 79 completed questionnaires were returned, response rate of 79%. These 79 respondents were not used in the final study.

3.8.2 Results of the Pilot Study

The pilot test clearly indicated the extent to which the instrument measured what it should be measuring, and the extent to which it was free from error, and was consistent and stable across the various items of the scale. Details of the validity and reliability tests are presented in the following sub-sections.

3.8.2.1 Validity Test

According to Hair, Wolfinbarger, Ortinau and Bush (2008) and Sekaran and Bougie (2010), content validity involves consulting experts to assess the appropriateness of the items designated to measure a construct. Samples of this questionnaire were given to the supervisor on several occasions, and a panel of experts was also asked to observe and to give necessary input on the fitness of the items adopted to measure the construct. The experts were senior lecturers, associate professors and professors in the Faculty of Management Sciences, Usmanu Danfodiyo University, Sokoto, Nigeria, and the School of Business Management, Universiti Utara Malaysia (UUM). In addition, some PhD candidates at UUM who were conversant with the study context (Nigeria) were contacted to test the clarity of the survey instrument. As a result of the feedback, some of the items were re-worded to be more understandable by the prospective respondents. This process took two weeks during January 2016.

3.8.2.2 Reliability Test

The results of the reliability test revealed that all the instruments had high reliability values ranging from .71 to .98, meeting the criterion of Hair, Black, Babin, Anderson and Tatham (2006), Nunnally (1978) and Sekaran and Bougie (2011) that an instrument with a coefficient of .60 is regarded as having average reliability, while a coefficient of .70 or higher indicates good or high reliability. Table 3.11 summarises the reliability results.

Table 3.11
Reliability Result

Variables	Number of items	Cronbach's Alpha
Viable Business Plan	15	.982
Entrepreneurial Awareness	5	.759
Entrepreneurial Self-efficacy	6	. 795
Access to Finance	8	.756
SMEs' Performance	6	.709

Source: *Pilot Survey*

3.9 Data Analysis Techniques

After collection, the data was coded and keyed in to statistical software (SPSS vn 22) for screening and other preliminary analysis. Subsequently, PLS-SEM (Partial Least Square-Structural Equation Modeling) (SmartPLS 2.0) was employed to examine the relations between the constructs of the theoretical model. SmartPLS is a powerful multivariate analysis technique that includes specific versions of a number of other analysis methods as special cases (Ringle, Wende, & Will, 2005). As a second-generation method, SmartPLS is acknowledged as an influential substitute to first-

generation approaches, including, for example, multiple regressions. SmartPLS 2.0 (Ringle, et al., 2005) is regression like approach that is capable of reducing the residual variances and has the unique ability to work well with both larger and fewer samples unlike AMOS SEM, that doesn‘t work well with fewer samples (Hair, Ringle, & Sarstedt, 2011). In multiple regressions only one dependent/criterion variable is allow in the model, but SmartPLS can simultaneously handle multiple criteria/dependent variables. The inclusion of multiple predictors/independent variables is allowed in both techniques (Chin, 1998), offering the ability to integrate unobserved (latent) variables in the analysis and use them to execute path-analytic modeling. Latent variables are those variables which are not being observed or measured directly in the study, but which need to be estimated by other measures (i.e. indicators or items) (Chin, 1998). In this study, all the variables are latent variables which need to be measured through some indicators.

Data assessment in SmartPLS combines a measurement model (i.e. an outer model) with a structural model (inner model) (Chin, 1998; Petter et al., 2007). This organises the distribution of measures into latent variables, measurement model, involves the confirmation of reliability and validity of measurement constructs using a criteria that relates with reflective and formative measurement if any, where the structural model integrates the relationships among predictor/independent and criterion/dependent latent constructs. This technique enables the researcher to explain, predict and measure the level of interrelationships among the constructs under investigation (Chin, 2010; Chin & Newsted, 1999). SmartPLS 2.0 has the unique ability of providing a parameter approximation that capitalizes on the R^2

values of the dependent variables. At such, it has the ability to predict outcome (Hock, Ringle, & Sarstedt, 2010; Sarstedt, M., & Schloderer, 2010).

Partial Least Square (PLS) analysis falls under one of the two types of SEM: covariance-SEM and component-based-SEM. PLS is part of the latter. Several divergent rationales exist for using either of the two types of SEM (Hair, Ringle, & Sarstedt, 2011).

3.9.1 Component-based SEM (PLS) vs. Covariance-based SEM

Chin (1998) and Chin and Newsted (1999) distinguished between component-based and covariance-based SEM. The former is normally recognised as PLS and the latter is also known as Linear Structural RELationships (LISREL). Covariance-based SEM is causal model/theory testing oriented, focusing on building models to explain the covariance of all indicators under observation, where the orientation of PLS is anticipated to attain the best weighted evaluations for each of the indicators consistent with each latent construct (Chin & Newsted, 1999).

In analysing the SEM model, both covariance-based SEM and PLS have been comprehensively reported in the literature, the objectives of the study determining the appropriate one. This study employed the PLS approach for the following reasons. More specifically, in terms of reliability, PLS takes measurement errors into account by clearly including measurement error variables that correspond to the measurement error portions of observed variables hence, conclusions about relationships between constructs are not biased by measurement error, and are equivalent to relationships between variables of perfect reliability this is perhaps very important because data in the social sciences frequently contain a lot of measurement

errors. Complex relationships patterns including a large number of hypotheses are simultaneously tested including their mean structures and group comparisons, which is not possible using other methods of analyses. PLS is known for its ability to test the hypotheses and their compatibility, their assumptions about parameters and the variances and co variances of all the observed variables are at once factored in systematically.

In addition, SmartPLS is a distribution-free approach, whereas covariance-based SEM assumes that multivariate normal distribution was done to observed variables (Chin & Newsted, 1999). PLS is the more appropriate approach here because it does not require the normality of the data. Therefore, PLS was the more appropriate option. Finally, this approach was suggested with the objective of prediction and theory development, and where there exists a solid theoretical model (Chin, 1998; Gefen & Straub, 2005). The primary objective is to maximize explained variance in the dependent constructs but additionally to evaluate the data quality on the basis of measurement model characteristics (Hair *et al*., 2011). Given PLS‐SEM's ability to work efficiently with an increased model complexity, and its less restrictive assumptions about the data, it can address a broader range of problems (Hair *et al*., 2011). Further, the goal of the present study is to predict the influence of EAW, ESE and VBP on the performance of Nigerian SMEs. This requires a path modelling approach to be employed because it has been suggested that if research is prediction-oriented or an extension of an existing theory, PLS path modelling should be employed (Hair, Ringle, & Sarstedt, 2011; Henseler, Ringle, & Sinkovics, 2009). Likewise, compared to other path modelling software (e.g., AMOS; Analysis of Moment Structures), the Smart PLS 2.0 M3 software was selected as a tool of

analysis because of its friendly graphical user interface, which help users create a moderating effect for path models with interaction effects (Temme, Kreis, & Hildebrandt, 2010). For all these reasons, this study employed PLS as a tool for data analysis.

3.9.1 Model Analysis with PLS

Model estimation with PLS results in the generation of a set of statistics, including path coefficients and correlations among the latent variables, factor loadings for the measures, R-square (R^2) for all endogenous constructs, and the Averaged Variance Extracted (AVE) of each of the latent constructs. In addition, PLS applies bootstrapping to calculate the significance of both paths and loading by producing a t-value statistic (Gefen & Straub, 2005). These statistics and terms are defined as follows:

Factor loading: weighting which reflects the correlation between the indicators and the constructs. Squared factor loadings are the percentage of variance in an observed item that is explained by its factor (Gefen & Straub, 2005).

Path coefficient: indicates the strengths of the relationships between the dependent and independent variables (Wixom & Watson, 2001).

R-square: measure of the proportion of the variance of the dependent variable about its mean that is explained by the independent variable(s) (Gefen & Straub, 2005).

AVE: measures the percentage of variance captured by a construct by showing the ratio of the sum of the variance captured by the construct and measurement variance (Gefen & Straub, 2005).

T-value: a statistic for identifying the significance of the relationship between two factors. T-values above 1.30, 1.645 and 1.965 or 1.645, 1.965 and 2.645 indicate significance of the relationship at alpha protection levels of 0.1, 0.05 and 0.01 for one tail and two tails respectively. This study restricted itself to 0.05 and 0.01 alpha protection levels at 1.965 and 2.645 t-values respectively, to determine the significance of the two-tail relationship (Hair, Ringle, & Sarstedt, 2011; Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014; Hair, Hult, Ringle, & Sarstedt, 2016; Ramayah, 2014).

Bootstrapping: is a non-parametric resampling procedure for examining the precision and stability of PLS estimates. N sample sets are created in order to obtain N estimates for each parameter in the PLS model. Each sample is obtained by sampling with replacement from the original data set (Chin, 1998).

In the PLS path modelling approach, the statistics are used to indicate how well the model is performing. A good overall model fit in PLS is established with significant path coefficients and an acceptably high R-square (Gefen & Straub, 2005). Barclay, Higgins and Thompson (1995) and Gefen and Straub (2005) stated that satisfactory internal consistency (i.e. reliability), discriminant validity and convergent validity are indicators of overall goodness-of-fit (GoF).

Therefore, this research examined R-square and path coefficients, together with internal consistency, convergent validity and discriminant validity to indicate how well its model was performing. Tenenhaus, Vinzi, Chatelin and Lauro (2005) suggested a global fit measure for PLS path modelling defined as the geometric mean of the average commonality and average R-square for endogenous constructs.

Commonality equals AVE in the PLS approach (Wetzels, Odekerken-Schröder & Van Oppen, 2009). Wetzels et al. (2009) stated that although this GoF index should not be treated as the sole indicator of model fit, it can serve a diagnostic purpose. This index has been employed by researchers (Akter, D'Ambra & Ray, 2010; Akter et al., 2011; Wetzels et al., 2009) as a complementary way of testing model fit (along with the normal ways of testing the overall model fit, i.e. examining R^2, path coefficients, internal consistency, convergent validity and discriminant validity). Henseler and Sarstedt (2013) suggest that the GoF index is not suitable for model validation. Therefore, a cross-validated redundancy measure (Q^2) was employed to evaluate the predictive relevance of the research model (Chin, 2010; Geisser, 1974; Hair et al., 2013; Hair et al., 2014; Ringle, Sarstedt, & Straub, 2012; Stone, 1974).

3.10 Chapter Summary

This chapter concerned the methodology employed for the study. The type of research design chosen was stated and justified. The operationalisation of the study's variables and the population and sample of the study were discussed. The chapter clearly described the population of the study and also determined the sample size, as well as the sampling procedures for selecting sufficient subjects to represent the whole population. A pilot study was conducted using the same instruments in order to evaluate the viability of the adopted measures, and how to overcome all possible obstructions during the main study's data collection. Further description of the survey instrument and the procedure for data collection were given. Finally, SPSS vn 22 and SmartPLS 2.0 for were used for the preliminary data analysis, descriptive

statistics, measurement model (reliability and validity tests), and structural model evaluation.

CHAPTER FOUR

ANALYSIS AND FINDINGS

4.1 Introduction

This chapter primarily concerns the empirical results of analysis using PLS-SEM path modeling. Before presenting the main results, the chapter describes the preliminary analysis, including data cleaning and screening, checking and treating missing values, treating outliers, and descriptive statistics. The core findings are presented in two sections. First the measurement model to determine individual item reliability, internal consistency reliability, convergent validity and discriminant validity is assessed. Section two reports the results of structural modeling, such as the significance of the path coefficients, level of the R-squared values, effect size and predictive relevance of the model. Finally, the moderating effects of AF on the structural model are presented.

4.2 Response Rate

A total of 559 questionnaires were personally administered to SME owner/managers in Sokoto, Kano and Kaduna states, with the help of research assistants. Some of the respondents answered the questionnaire immediately; others took a few weeks before their responses could be retrieved. The researcher follow-up visits with free consultation to speed up completion of the questionnaires, and some phone calls were made during the data collection periods; the research assistants also helped in retrieving the questionnaires distributed to some categories of respondent (Sekaran &

Bougie, 2010). Out of 559 distributed questionnaires, 369 were duly completed and returned, which represent about 66% of the total questionnaires distributed. However, out of the total number of the returned responses, only 354 questionnaires representing about 63.3% of the total distributed were found to be usable for analysis, whereas other 15 questionnaires representing 2.7% removed from the data usable for analysis for being outliers. See Table 4.1 presents the details of the response rate analysis.

Table 4.1
Response Rate of the Questionnares

Response	**Frequency/Rate**	**Percentage**
No. of distributed questionnaires	559	100%
Returned questionnaires	369	66%
Returned and usable for analysis	354	63.3%
Rejected/Removed	15	2.7%
Questionnaires not returned	190	34%
Response rate	66%	
Valid response rate	63.3%	

Source: *Field Survey*

Although the response rate was only 63.3% this was considered adequate for analysis in the current study. It is not necessary to achieve 100% response rate for the results to be valid and generalisable. Sekaran and Bougie (2013) suggested that a response rate of 30% may be sufficient, while Babbie's (2015) review of the social science literature suggested that a 50% response rate is considered adequate for data analysis and reporting, 60% is good, and 70% is very good. Therefore, the present study's response rate is considered good.

Taking another approach, using the statistical power analysis (G*Power Analysis) described in the previous chapter, this sample size is adequate as it exceeds the minimum of 146 samples determined by the power analysis.

4.3 Test for Non-response Bias

Groves (2006) defined non-response bias as the variance in the responses between respondents and non-respondents. To assess the possibility of non-response bias, Armstrong and Overton (1977) proposed a period slant extrapolation approach, which involves comparing early and late respondents, the latter representing non-respondents who have similar characteristics.

However, no matter how small the non-response is, the possibility of bias needs to be investigated (Pearl & Fairley, 1985; Sheikh & Mattingly, 1981).The occurrence of non-response bias affects the results, preventing stating how the aggregate sample reacted. Accordingly, non-response bias might influence the generalisation of the sample to the populace. It is therefore important to assess this kind of error before moving to the primary analysis, and the extrapolation procedure suggested by Armstrong and Overton (1977) was conducted. Respondents were divided into two independent samples, early and late, as explained in the previous chapter. The responses received after March were, in essence, a sample of non-respondents to the first questionnaire, and were presumed to be representative of the non-respondents group (Lindner, Murphy, & Briers, 2001). An independent sample t-test was conducted for all variables to look for bias between the two groups, and the results

subjected to Levene's test for equality of variance. Table 4.2 presents the results of the independent-samples t-test.

Table 4.2
Results of Independent-Samples T-test for Non-Response Bias

Variables	Group	N	Mean	SD	Levene's Test for Equality of Variances	
					F	Sig.
Entrepreneurial Awareness	Early Response	149	5.322	1.202	.048	.704
	Late Response	205	5.274	1.177		
Entrepreneurial Self-efficacy	Early Response	149	5.282	1.194	3.257	.682
	Late Response	205	5.331	1.047		
Viable Business Plan	Early Response	149	4.911	1.583	.599	.965
	Late Response	205	4.918	1.527		
Access to Finance	Early Response	149	5.269	1.162	1.958	.120
	Late Response	205	5.090	.985		
SMEs Performance	Early Response	149	5.484	.906	3.713	.130
	Late Response	205	5.316	1.109		

Source: *Field Survey*

These results indicated that the equal variance significance values for each of the five main study variables was greater than the 0.05 significance level of variance suggested by Pallant (2010) and Field (2009). This concluded that the supposition of equivalence between early and late respondents had not been violated; therefore there was no element of non-response bias in the data. Hence, the respondents represented all other elements of the study population, and the results of the study can be generalised to the whole study population. As the response rate was well above 50%, non-response bias was not an issue in this study (Lindner & Wingenbach, 2002).

4.4 Common Method Bias

Generally, common method bias is bias that is subject to common method variance (CMV). Operationally, CMV refers to variance attributable to the measurement method rather than to the construct of interest (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). Since the data on the study variables were collected at the same time via the same instrument, common method bias could affect the data collected. This problem in behavioural studies may lead to invalid conclusions about relationships between variables by inflating or deflating results (Conway & Lance, 2010; Podsakoff et al., 2003; Podsakoff, MacKenzie, & Podsakoff, 2012). It is generally agreed by researchers that common method variance is a major concern for scholars using self-report surveys (Lindell & Whitney, 2001; Podsakoff et al., 2003; Spector, 2006). For instance, Conway and Lance (2010) indicated that "common method bias inflates relationships between variables measured by self-reports" (p. 325). Similarly, Organ and Ryan (1995) stated that studies conducted using self-report surveys are associated with spuriously high correlations due to common method variance.

Therefore, this study conducted a test to make sure that there is no variance in observed scores and that correlations are not inflated because of the method's effect. This was done by adopting several procedural remedies to minimise the effects of CMV. First, the researcher improved the scale items to reduce method bias by avoiding imprecise concepts in the questionnaire; all questions in the survey were written in a simple, specific and concise language. Secondly, to reduce evaluation apprehension, the participants were informed that there was no right or wrong answer

to the items in the questionnaire; they were also assured that their answers would remain confidential throughout the research process.

Notwithstanding this, the study also adopted Harman's single factor test proposed by Podsakoff and Organ (1986) to examine CMV. To test method bias using Harman's (1961) single factor approach, all items of the principal constructs were subjected to principal component factor analysis (Podsakoff & Organ, 1986). This indicates existence of method bias when the factor analysis provides only a single factor, or when a single factor represents the greatest part of the covariance among the measures (Podsakoff et al., 2003). Therefore, in the present study, un-rotated factor analysis was used with 40 items of all the variables of the study, and it was discovered that no single factor accounted for more than 50% of the variance. The results of the analysis yielded nine factors, explaining a cumulative 65.9% of the variance; with the first (largest) factor explaining 20.12% of the total variance, which is less than 50% (see Appendix B). This is consistent with Podsakoff et al. (2003) and Lowry and Gaskin (2014), whose argue that CMB exists once a single factor explains more than 50% of the variance. The results of Harman's single-factor analysis indicate that CMV does not exist between the present study's constructs.

4.5 Data Screening and Preliminary Analysis

In any multivariate analysis, initial data screening is essential for researchers to detect any possible violations of the key assumptions concerning the application of multivariate techniques of data analysis (Hair et al., 2007). It also provides a better understanding of the data collected for further analysis. Therefore, preliminary

analysis is required in order to conduct a particular statistical analysis and to address the research questions (Pallant, 2010).

However, to carry out such preliminary analyses, the data have to be coded and entered into a data file of the researcher's choice, depending on the requirements of the study. This researcher used SPSS vn 22 for coding, screening, and other preliminary analysis. All the 369 usable questionnaires were coded and entered into the SPSS variable view page. The coding of each question/item was based on its main variable code/initials and its serial position in relation to other items under the same latent construct. Six items/questions measuring SMEs' performance were coded as PER01, PER02, PER03, PER04, PER05 and PER06 (for instance, question no. 2 "Compared to the last three years, our business has increased product sales" was coded as PER02). The same technique was applied to all other variables/constructs of the study.

Following data entry and coding, the following preliminary data analysis were carried out: (1) missing value analysis, (2) assessment of outliers, (3) normality test, and (4) multicollinearity test, as suggested by (Hair, Black, Babin & Anderson, 2010; Tabachnick & Fidell, 2007).

4.5.1 Missing Value Analysis

As the respondents to questionnaires are only human, the data set may be incomplete (Pallant, 2010). The researcher is responsible for detecting and treating any missing information appropriately. In the original SPSS data set, out of the 14,760 data points, only 57 had been randomly missed, representing 0.38% of the whole data

gathered. Specifically, VBP and EAW had 20 and 4 missing values respectively; ESE and AF had 10 and 16 missing values respectively, and 7 missing values were found in performance (see Appendix C).

Although, for making a valid statistical inference no percentage of missing values is acceptable in a data set, researchers have tended to agree that a missing rate of 5% or less is non-significant (Tabachnick & Fidell, 2007). The least demanding method for replacing missing values is the mean substitution method if the total proportion of missing data is 5% or less (Little & Rubin, 1989; Tabachnick & Fidell, 2007). Therefore, this study, used mean substitution to replace randomly missing values, using SPSS vn 22 (Tabachnick & Fidell, 2007). Table 4.3 presents the assessment of missing values.

Table 4.3
Total and Percentage of Missing Values

Latent Variables	**Number of Missing Values**
Viable Business Plan	20
Entrepreneurial Awareness	4
Entrepreneurial Self-efficacy	10
Access to Finance	16
Performance	7
Total	**57 out of 14,760 data points**
Percentage	**.38%**

Note: Percentage of missing values is obtained by dividing the total number of randomly missing values for the entire data set by total number of data points multiplied by 100. Data point = No of items in the questionnaire (40)*No of cases in the data set or respondents (369). (40*369 = 14,760).

4.5.2 Assessment of Outliers

Hodge and Austin (2004) defined outliers as an observation(s) or its subsets that are inconsistent with other observations or the remainder of a data set. They are observations with a distinctive combination of characteristics noticeably different from other observations (Hair et al., 2010). An outlying observation(s) may be the result of gross deviation from other observations' direction, and thus it should be discarded (Grubbs, 1969). This is because allowing outliers in a data set can strongly affect the estimation of the coefficients and consequently lead to misleading results (Verardi & Croux, 2008). In order to detect any observation which appears to be outside the SPSS value labels as a result of wrong data entry, first, frequency tables were calculated for all variables, using minimum and maximum statistics. Based on this initial analysis of frequency statistics, no value was found to lie outside the expected range.

The researcher also examined the data for univariate outliers using standardised values with a cut-off of ±3.29 ($p < .001$) as recommended by Tabachnick and Fidell

(2007). Following this criterion for detecting outliers, 15 cases were identified using standardised values as potential univariate outliers (i.e. 1, 30, 31, 32, 56, 99, 108, 111, 117,138, 218, 230, 321, 355 and 361); these were deleted from the data set because they could affect the accuracy of the data analysis technique. After removing the 15 univeriate outliers, the final data set was 354. However, treating univariate outliers does not necessarily take care of multivariate outliers (Hair et al., 2010). Based on the suggestion of Fidell, Tabachnick, Mestre and Fidell (2013), the researcher employed Mahalanobis distance (D^2) to identify multivariate outliers.

Linear regression methods were used in calculating Mahalanobis D^2 in SPSS vn 22, followed by the computation of the chi-square value. Given that 40 items were used, 39 represented the degree of freedom in the chi-square table with $p < 0.001$, so the criterion was 72.06 (Fidell et al., 2013). Any case of a Mahalanobis D^2 value being 72.06 or above is a multivariate outlier which should be removed. None of the observations here was identified as a multivariate outlier, so the remaining 354 cases were accepted for further multivariate analysis.

4.5.3 Normality Test

PLS-SEM is assumed to deliver precise model estimations even with extremely non-normal situations (i.e. it works perfectly with non-normal data) (Cassel, Reinartz, Haenlein, & Henseler, 2009; Wetzels, Odekerken-Schröder, & Van Oppen, 2009). However, recent authors (Hair et al., 2012, 2014) have suggested that researchers should consider the data distribution, i.e. perform a normality test on the data. They based their argument on the view that extremely skewed data increases bootstrap standard errors (Chernick, 2011), and hence may underestimate the statistical

significance of path coefficients (Dijkstra, 1983; Hair et al., 2012). By definition, normality is the shape of the distribution of data for an individual metric variable and its correspondence to the normal distribution of the benchmark for statistical methods (Hair et al., 2010).

Therefore, to check the normality or assess possible deviation from normality and the shape of the distributions, this study employed multivariate normality to assess the data distribution using kurtosis and skewness i.e. "the peakedness or flatness of the distribution compared with the normal distribution and the balance of distribution at centred or symmetrical with about the same shape on both sides respectively" (Hair et al., 2010; West, Finch, & Curran, 1995).

West et al. (1995) and Curran, West and Finch (1996) introduced the cut-off value for assessing data distribution, where kurtosis values should be < 7 and skewness values < 2. Kline (2015) stated that a skewness value of > 3 and kurtosis of > 10 may indicate a problem; and values above 20 may indicate a more serious problem. Both the skewness and kurtosis of metric variables in this study are thus within the acceptable range of < 2 and < 7 respectively (see Appendix D).

4.5.4 Multicollinearity Test

Hair et al. (2010) and Pallant (2010) defined multicollinearity as the relationship between two or more exogenous latent variables, where the independent variables demonstrate little correlation with other independent variables. The occurrence of multicollinearity can seriously affect the quality of the estimation of coefficients and thus the statistical significance (Chatterjee & Yilmaz, 1992; Hair et al., 2006; Tabachnick & Fidell, 2007). Multicollinearity exists once latent independent

variables are too correlated (Hair et al., 2010; Pallant, 2010; Tabachnick & Fidell, 2007). Hence, if at least two variables are closely related, they contain pointless information, increasing the error terms if both are involved in the same analysis.

Additionally, when there is high multicollinearity between variables, it will increase the standard error of the regression coefficient, making the statistical significance of these coefficients less reliable. According to Hair et al. (2010) and Pallant (2010), examination of tolerance and the Variance Inflation Factor (VIF) is the most reliable statistical test of multicollinearity, with the benchmarks of > 0.1 and < 10 respectively. Similarly, when the correlation between a latent independent variable and another is as high as 90% (r = 0.9) or above, it indicates the presence of multicollinearity among such variables (Hair et al., 2010; Pallant, 2010). Therefore, this study tested multicollinearity by examining a correlation matrix and by tolerance and the VIF level for the independent variables.

A correlation matrix was examined to identify any indication of high correlations among the independent variables. The results showed that none of the exogenous variables was highly correlated with any other exogenous variable. As presented in Table 4.4, the correlations between all the latent independent variables were below the threshold (r = .9), indicating that there is no multicollinearity among these variables (Hair et al., 2010; Pallant, 2010).

Table 4.4
Multicollinearity Test: Correlation Matrix (n=354)

Constructs	**1**	**2**	**3**	**4**
Viable Business Plan	1			
Entrepreneurial awareness	.324**	1		
Entrepreneurial Self-efficacy	.423**	.361**	1	
Access To Finance	.121*	.325**	.450**	1

**. Correlation is significant at the 0.01 level (1-tailed).
*.Correlation is significant at the 0.05 level (2-tailed).

The researcher further tested for multicollinearity through the examination of tolerance and VIF via the regression results provided by the SPSS collinearity diagnostics result. Hair et al. (2010), Hair, Ringle and Sarstedt (2011) and Hair, Sarstedt, Hopkins and Kuppelwieser (2014) claim that this is the most important and reliable test for multicollinearity. Hair et al. (2014) recommended that a tolerance level of .20 and below or a VIF value of 5 and above shows the existence of multicollinearity. Basically, if a tolerance value is .20 or a VIF value is 5 (tolerance over 1, i.e. 0.20/1), then 80% of that variable's variance is explained by other independent variables in the model. Table 4.5 shows the VIF values, tolerance values, and condition indices for the exogenous latent constructs.

Table 4.5
Tolerance and Variance Inflation Factors (VIF)

Latent Constructs	Collinearity Statistics		Condition Index
	Tolerance	**VIF**	
			1.000
VBP			
EAW	.837	1.195	11.151
ESE	.746	1.340	13.150
AF	.767	1.303	14.290
EAW			
ESE	.660	1.516	7.764
AF	.792	1.263	13.708
VBP	.815	1.227	14.291
ESE			
AF	.894	1.118	7.716
VBP	.895	1.117	11.540
EAW	.812	1.231	14.336
AF			
VBP	.787	1.270	8.374
EAW	.834	1.199	11.675
ESE	.765	1.307	14.003

Note: VBP=Viable Business Plan, EAW=Entrepreneurial Awareness, ESE= Entrepreneurial Self-efficacy, AF=Access to Finance.

Therefore, in this study, the tolerance levels of all independent variables are higher than 0.20 and the VIFs are below 5. This clearly indicates the absence of multicollinearity among the variables. To summarise, both correlation matrix, and the collinearity statistics using tolerance and VIF proved that the exogenous latent variables in this study were wholly free from any multicollinearity.

4.6 Demographic Profile of Respondents

This section describes the demographic profiles of the respondents in the sample. It presents the frequency distribution and percentage of participants by demographic characteristics. The respondents were asked to indicate a number of characteristics relating to their firms (line of business, business type, location of the business, age of

the firm, number of employees and estimated total assets), as well as demographic variables (their level of education, gender and job position) (see Table 4.6).

Table 4.6
Demographic Profile of Respondents: Frequency Distribution (n=354)

Items	Frequency	Percentage
Gender		
Male	276	78.0
Female	78	22.0
Education		
Primary Certificate	25	7.1
S S C E	116	32.7
ND/ NCE	136	38.4
HND/ Degree	38	10.7
PGD/ Master	25	7.1
PhD	14	4.0
Main line of Business in your firm		
Agriculture, hunting, forestry and fishing	31	8.8
Manufacturing	40	11.3
Wholesale and Retail Trade	206	58.2
Hotels and Restaurants	27	7.6
Other	50	14.1
Type of Business/Equity Type		
Sole proprietorship	90	25.4
Partnership	136	38.4
Limited liability	57	16.1
Joint Venture	71	20.1
Job Position		
Owner	194	54.8
Manager	123	34.7
Owner/ Manager	37	10.5
Number of Employee		
10-49	320	90.4
50-199	34	9.6
Location of Business		
Kano	286	80.8
Kaduna	47	13.2
Sokoto	21	5.9
Years of enterprise been in existence		
Less than 5 years	153	43.2
5-10 years	79	22.3
11-15 years	99	28.0
More than 15 years	23	6.5

Table 4.6 Cont….

Company's estimated total assets		
Minimum of N5m	222	62.7
Between N5m to less than N50m	116	32.8
Between N50m to less than N500m	8	2.3
Between N500m and above	8	2.3

Source: *Survey*

As shown in Table 4.6 above, the majority of respondents, 276, were male (78%), with the remaining 78 (22%) female. This wide range between male respondents and their female counterparts is not surprising considering that earlier studies on SMEs have testified that male respondents are always in the majority in both developing and developed nations (Idar & Mahmood, 2011; Panigyrakis & Theodoridis, 2007).

Table 4.6 also indicates that the largest group of respondents were ND/NCE holders (136, 38.4%), followed by SSCE holders (116, 32.7%) and HND/Degree holders (38, 10.7%). Both primary certificate and PGD/Masters holders were represented by 25 (7.1%) of the total respondents, and the remaining 14 (4%) held doctorate degrees.

The main line of business of the majority of respondents was the wholesale and retail trade (206, 58.2%). 50 respondents (14.1%) were in manufacturing, 40 (11.3%) in agriculture, hunting and forestry, and 31 (8.8%) in fishing; the remaining 27 (7.6%) had hotels and restaurants.

Type of ownership/equity was categorised as: 1) sole proprietorship; 2) partnership; 3) limited liability company; and 4) joint venture. All four types were represented in the sample, with 38.4% in partnership, 25.4% sole proprietorship, 20.1% joint venture, and 16.1% limited liability.

Participants were asked their position in their respective firms, to check their eligibility for completing the survey questionnaire and to distinguish who was managing the firm. 54.8% of the firms were managed by the owner, 34.7% by a manager and 10.5% by both owner and manager. This indicates that more than half the SMEs in Nigeria are managed by the owners. Respondents were also asked to indicate the size of their firm; 90.4% were small, with 10-49 employees, and only 9.6% medium, with 50-199 employees. As for the location of the business, most were located in Kano with 80.8%; and 13.2% in Kaduna and 5.9% in Sokoto.

The next category concerned the age of the firm. As shown in Table 4.6, the largest group of the firms participating in the study (153, 43.2%) had existed for 1-5 years at the time of the data collection. 99 firms (28.0%) had been in operation for 11-15 years, 79 (22.3%) for 5-10 years, and only 23 (6.5%) for more than 15 years.

The final question was about the estimated total assets of the firm. 222 of the 354 respondents (62.7%) estimated their total assets at a minimum of NGN5 million; 116 (32.8%) at NGN5 million to NGN50 million, and only 2.3% at either NGN50 million to NNN500 million or NGN500 million and above.

4.7 Descriptive Statistics of Latent Constructs

In this section, the descriptive statistics of the latent variables are presented. The mean (the sum of all observed outcomes from the sample divided by the total number of events) and standard deviation (SD, the measure used to quantify the amount of variation or dispersion of a set of data values) were computed to determine the descriptive characteristics of the variables, as shown in Table 4.7.

Table 4.7
Descriptive Statistics of Latent Constructs

Construct	Sample	Mean	Std. Deviation
Entrepreneurial awareness	354	5.29	1.19
Entrepreneurial self-efficacy	354	5.31	1.11
Viable business plan	354	4.91	1.55
Access to finance	354	5.16	1.07
SMEs Performance	354	5.38	1.03

Source: *Survey*

As discussed in section 3.3, all the constructs were measured on a 7-point Likert scale, from 1 = Strongly disagree 7 = Strongly agree.

As can be seen from Table 4.7, the mean and SD for EAW are 5.29 and 1.19 respectively, indicating that the respondents tended to agree with the statements concerning this construct. The mean and SD for ESE were similar, at 5.31 and 1.11, but VBP differed slightly, at 4.91 and 1.55. Hence, in almost all the independent latent constructs, respondents tended to be moderately agreed, except in VBP where they tended to be neutral.

Similar results were found for the moderating variable, AF, at 5.16 and 1.07. For the dependent variable, i.e. SMEs' performance, the mean was 5.38 and SD 1.03, which also indicates moderate agreement with the statements indicating the practicality or existence of the concepts in their respective firms. The means of the latent variables indicate that the average option chosen by respondents was moderate agreement, with the exception of VBP, which was more neutral. The data points were close to the mean, with little deviation (Bhatti, Hoe & Sundram, 2012).

4.8 Assessment of PLS-SEM Path Model Results

A recent study by Henseler and Sarstedt (2013) suggests that the GoF index is not suitable for model validation (see also Hair, Sarstedt, Hopkins & Kuppelwieser, 2014). For instance, using PLS path models with simulated data, the authors showed that the GoF index cannot separate valid models from invalid ones (Hair et al., 2013). In the light of this recent development about the unsuitability of PLS path modeling in model validation, after checking and screening the data as described above, the researcher adopted a two-step process to evaluate and report the results of the PLS-SEM path, as suggested by Henseler, Ringle, and Sinkovics (2009). This comprised (1) the assessment of a measurement model, and (2) the assessment of a structural model, as depicted in Figure 4.1 (Hair, Hult, Ringle & Sarstedt, 2014, 2016; Henseler et al., 2009).

However, before conducting the PLS-SEM analysis, the researcher had to configure the model in a clearly understandable way. This was done by identifying which indicators, if any, were formative, and which were reflective, because different approaches are used in testing the two models (Hair et al., 2013). All the indicators of latent variables involved in this study are reflective in nature.

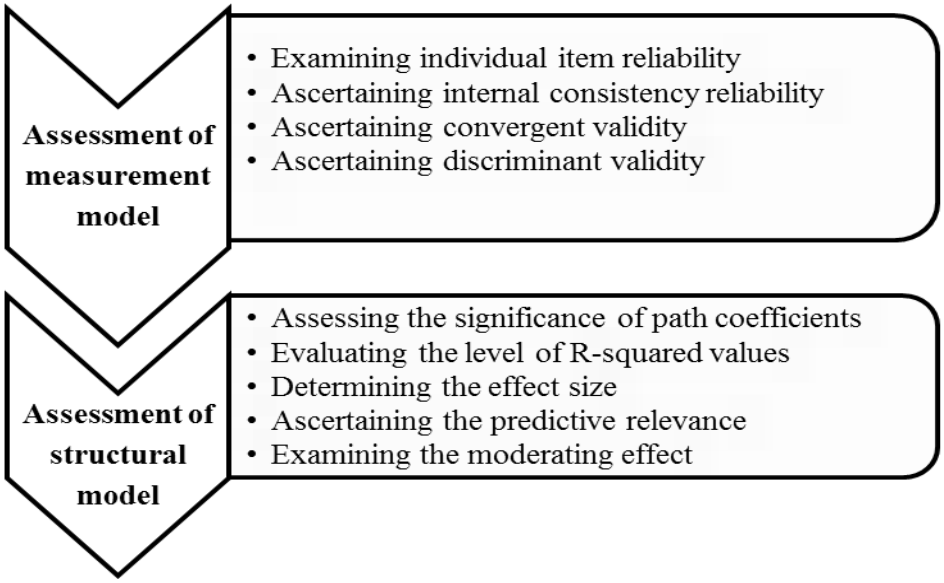

Figure 4.1
A Two-Step Process of PLS Path Model Assessment
Source: *Henseler et al. (2009)*

4.8.1 Assessment of Measurement Model

Assessment of the measurement model (the outer model) is the first step in PLS-SEM analysis. It deals with the components that determine how well the survey items measure the constructs they were designed to measure, thus ensuring that the model is reliable and valid. An assessment of the outer model consists of determining individual items' reliability, internal consistency, content validity, convergent validity and discriminant validity (Hair, et al., 2011; Hair, et al., 2016; Henseler, Ringle & Sinkovics, 2009)

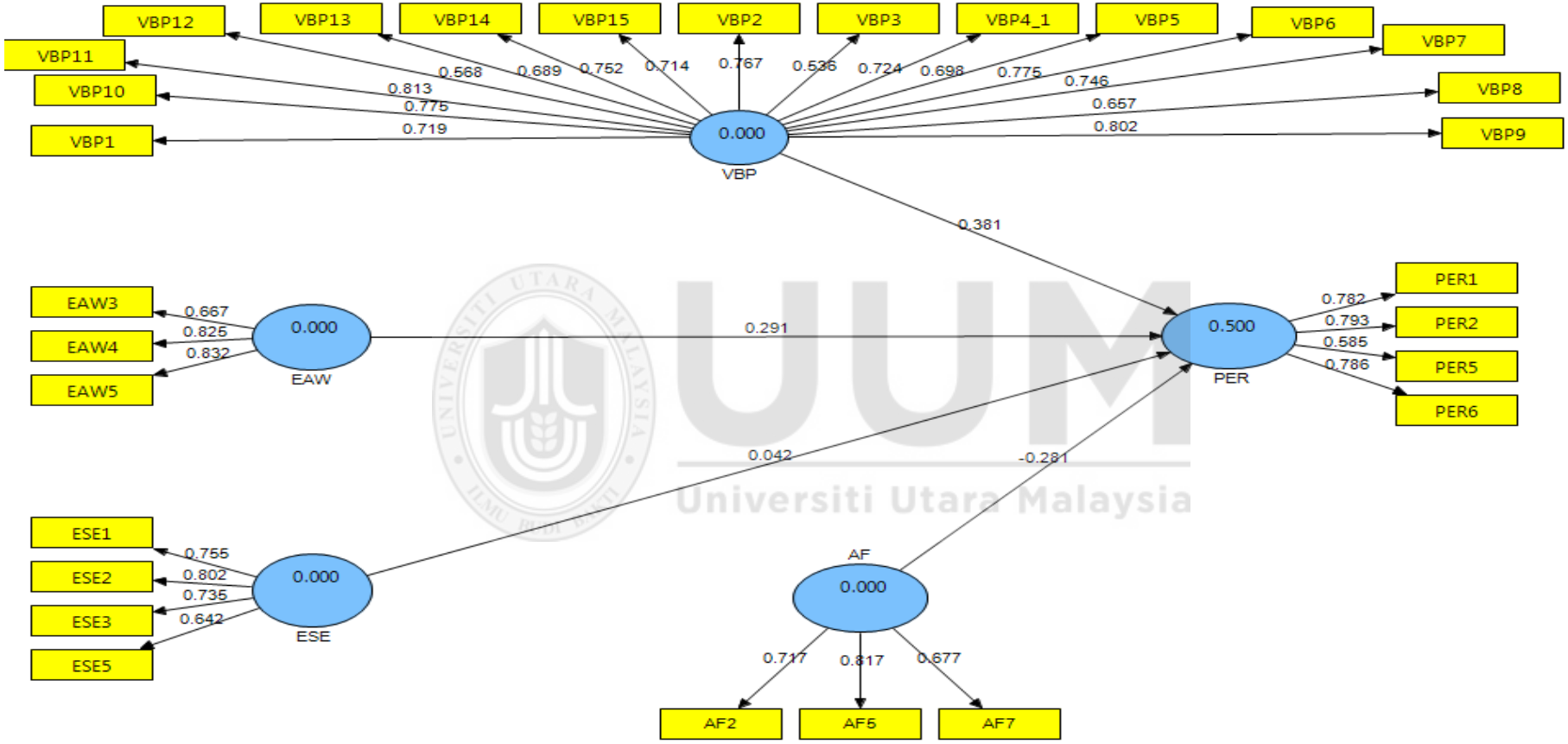

Figure 4.2
Measurement Model

4.8.1.1 Individual Item Reliability

To determine individual item (indicators) reliability and other measurement model assessments, the researcher executed the PLS algorithm (Geladi & Kowalski, 1986) depicted in Figure 4.2 above. The outer loadings of each construct's measure were examined (Duarte & Raposo, 2010; Hair, et al., 2014), using Hair et al.'s (2014) rule of thumb for retaining only the items with loadings between .40 and .70, subject to the increment of average variance extracted (AVE) and composite reliability (CR). Out of 40 items, 11 were deleted (EAW1, EAW2, ESE4, ESE6, AF1, AF3, AF4, AF6, AF8, PER3 and PER4) because they presented loadings below the threshold of 0.40 (Hair et al., 2014). Thus, in the whole model, only 29 items were retained; their loadings between .538 and .832 were considered acceptable for further analysis (see Table 4.8).

4.8.1.2 Internal Consistency Reliability

The extent to which all items on a particular (sub-) scale are measuring the same concept is known as internal consistency reliability (Bijttebier et al., 2000; Sun et al., 2007). Traditionally, Cronbach's alpha coefficient is the criterion for assessing internal consistency providing an estimate of the reliability based on the inter-correlations among indicators (see, Cronbach, 1951; Cronbach & Shavelson, 2004).

Regardless of the popularity of the alpha coefficient, it has been criticised for being sensitive to the number of items in a construct and underestimating the true internal consistency reliability; therefore, CR is recommended as an alternative criterion, especially in SEM (Bacon, Sauer & Young, 1995; Hair et al., 2014; Peterson & Kim,

2013). As CR takes into account the various outer loadings of respective indicators, it provides a less biased estimate of reliability than Cronbach's alpha, which assumes all items are equally reliable without considering the actual contribution of each individual's loadings (Barclay et al., 1995; Götz, Liehr-Gobbers & Krafft, 2010; Hair et al., 2014). Therefore, it was suggested that CR is more appropriate for PLS-SEM (Hair et al., 2014), and the present study used it for assessing internal consistency reliability. Table 4.8 presents the loadings, CR and AVE.

Table 4.8
Loadings, Composite Reliability and Average Variance Extracted

Latent constructs and indicators	Standardized Loadings	Composite Reliability (CR)	Average Variance Extracted (AVE)
SMEs Performance		.828	.549
PER1	.782		
PER2	.793		
PER5	.586		
PER6	.786		
Access to Finance		.783	.547
AF2	.717		
AF5	.818		
AF7	.677		
Entrepreneurial Awareness		.821	.606
EAW3	.667		
EAW4	.825		
EAW5	.832		
Entrepreneurial Self-efficacy		.824	.541
ESE1	.755		
ESE2	.802		
ESE3	.735		
ESE5	.642		
Viable Business Plan		.941	.518
VBP1	.719		
VBP2	.767		
VBP3	.536		
VBP4	.724		
VBP5	.698		
VBP6	.775		
VBP7	.746		
VBP8	.657		
VBP9	.802		
VBP10	.775		
VBP11	.813		
VBP12	.568		
VBP13	.689		
VBP14	.752		
VBP15	.714		

Note: PER=SMEs Performance, AF=Access to Finance, EAW=Entrepreneurial Awareness, ESE= Entrepreneurial Self-efficacy, VBP=Viable Business Plan. It has shown that 10 items (EAW1, EAW2, ESE4, ESE6, AF1, AF3, AF4, AF6, AF8, PER3 and PER4) were deleted due to measurement issue (n=354).

However, the researcher used the rule of thumb provided by Bagozzi and Yi (1988) and Hair et al. (2011) for interpretation of the internal consistency reliability using a CR coefficient, which should be at least .70. Therefore, as can be seen from Table 4.8, apart from the 11 items that were removed for the reasons explained above, all other indicators have loadings of .50 and above.

4.8.1.3 Convergent Validity

Convergent validity refers to the type of reflective construct's validity that assesses how a certain measure actually measures what it was intended to measure, and correlates positively with alternative measures of the same construct (Hair et al., 2006). The construct is assumed to have convergent validity when its items or indicators converge or share a high proportion of variance (Hair, et al., 2014).

In line with the suggestion of Fornell and Larcker (1981), convergent validity was assessed by examining the AVE of each latent construct. To achieve adequate convergent validity, Chin (1998) recommended that the AVE of each latent construct should be .50 or more. The AVE values (see Table 4.8) exhibited high loadings (> .50) on their respective constructs, indicating adequate convergent validity.

In a nutshell, based on the PLS-SEM algorithm results (Geladi & Kowalski, 1986; Lohmoeller, 1989) presented in Table 4.7, SMEs' performance has the AVE value of .549, AF has .547, EAW .606, EFE .541, and VBP .518. These values show that all of the abovementioned reflective constructs have convergent validity, and thus all explained more than 50% of the variance of their respective indicators.

4.8.1.4 Discriminant Validity

Discriminant validity is another type of construct validity of reflective construct concerned with the extent to which a particular construct is distinct from other constructs of the same model, based on empirical standards (Duarte & Raposo, 2010; Hair et al., 2014). When a latent reflective construct is unique and captures

phenomena not represented by other latent reflective constructs, it implies that the discriminant validity is established (Barroso, Carrión, & Roldán, 2010; Hair et al., 2014).

In essence, there are two approaches to assessing discriminant validity (Hair et al., 2014). The first method is known as the Fornell-Lacker criterion: a reflective construct has discriminant validity when the square root of its AVE is higher than its correlation with any other reflective construct in the same model (Fornell & Larcker, 1981). The logic behinds this method is that if the square root of the AVE of the latent reflective construct is higher than its correlation with other reflective latent constructs, it indicates that a particular construct shares more variance with its associated indicators than with any other latent construct in the model. Therefore, this reflective construct is distinct from other constructs (Hair et al., 2014). Based on this criterion, all the reflective latent constructs of this study achieved discriminant validity (see Table 4.9).

Table 4.9
Measurement Model: Discriminant Validity (Fornell-Larcker Criterion)

Constructs	AF	EAW	ESE	PER	VBP
AF	**.740**				
EAW	.422	**.778**			
ESE	.415	.405	**.736**		
PERF	.488	.517	.405	**.741**	
VBP	.175	.237	.337	.513	**.720**

Note: The bolded diagonal values correspond to the square root of the AVE of the constructs (n=354). PER=SMEs Performance, AF=Access to Finance, EAW=Entrepreneurial Awareness, ESE= Entrepreneurial Self-efficacy, VBP=Viable Business Plan.

The second method of assessing the discriminant validity of reflective latent variables is by examining the cross-loadings of their respective indicators (Hair et al., 2014). Specifically, for a reflective latent variable to have discriminant validity using

the cross-loadings method, all its indicator loadings should be greater than their corresponding loadings (cross-loadings) on other constructs (see, Chin, 1998). Hair et al. (2011) are of the view that cross loading is generally considered a rather liberal criterion in terms of establishing discriminant validity. The assessment of discriminant validity based on the cross-loadings criterion is presented in Table 4.10.

Table 4.10
Measurement Model: Discriminant Validity (Cross Loadings)

Items	AF	EAW	ESE	PER	VBP
AF2	**0.717**	-0.356	-0.411	-0.357	-0.118
AF5	**0.818**	-0.299	-0.272	-0.434	-0.285
AF7	**0.678**	-0.288	-0.237	-0.262	0.104
EAW3	-0.312	**0.667**	0.305	0.282	0.171
EAW4	-0.351	**0.825**	0.338	0.456	0.213
EAW5	-0.328	**0.832**	0.312	0.440	0.172
ESE1	-0.281	0.451	**0.755**	0.296	0.285
ESE2	-0.272	0.352	**0.802**	0.324	0.271
ESE3	-0.319	0.253	**0.735**	0.306	0.288
ESE5	-0.362	0.115	**0.642**	0.261	0.135
PER1	-0.257	0.285	0.310	**0.782**	0.487
PER2	-0.506	0.409	0.337	**0.793**	0.363
PER5	-0.369	0.343	0.194	**0.585**	0.088
PER6	-0.325	0.482	0.332	**0.786**	0.495
VBP1	-0.205	0.156	0.135	0.289	**0.719**
VBP2	-0.240	0.210	0.319	0.387	**0.767**
VBP3	-0.137	0.113	0.229	0.296	**0.536**
VBP4	-0.089	0.015	0.181	0.335	**0.724**
VBP5	-0.084	0.020	0.193	0.333	**0.698**
VBP6	-0.188	0.259	0.264	0.468	**0.776**
VBP7	-0.024	0.114	0.193	0.405	**0.746**
VBP8	-0.125	0.287	0.236	0.354	**0.657**
VBP9	-0.044	0.174	0.165	0.413	**0.802**
VBP10	-0.148	0.165	0.264	0.414	**0.775**
VBP11	-0.117	0.178	0.244	0.399	**0.813**
VBP12	0.161	-0.004	0.168	0.120	**0.568**
VBP13	-0.210	0.157	0.387	0.372	**0.689**
VBP14	-0.191	0.200	0.256	0.358	**0.752**
VBP15	-0.094	0.353	0.354	0.407	**0.715**

Note. The bold values indicate the items that belong to the column's construct, PER=SMEs Performance, AF=Access to Finance, EAW=Entrepreneurial Awareness, ESE= Entrepreneurial Self-efficacy, VBP=Viable Business Plan.

It was shown in Table 4.9 that each of the reflective latent variables in the present study has discriminant validity based on the cross-loading analysis, as the indicators' loadings (i.e. highlighted loadings) of each construct were greater than their corresponding loadings crosswise. That is, all the latent reflective constructs of this study have discriminant validity using either method.

4.8.2 Assessment of the Structural Model

Having ascertained the measurement model, this study assessed the outer model (structural model) results, as presented in this section. The structural equation model of the data analysis involved the outer model's predictive abilities and the relationships between the constructs. In this study, both the main and moderating hypotheses were analysed using bootstrap analysis. Specifically, this study employed a standard bootstrapping procedure using 5,000 bootstrap samples for the 354 cases, to assess the significance of the path coefficients of both direct and moderating relationships (Hair et al., 2014; Henseler & Sarstedt, 2013). As the objectives of this study are to empirically examine the direct relationships between independent variables (IVs) and the dependent variable (DV), as well as the moderating role of AF on the relationship between these IVs and the DV, the researcher decided analysing two different structural models.: the first model analysed the direct relationship, and the second one the moderating effect (Baron & Kenny, 1986; Frazier, Tix & Barron, 2004; Hair et al., 2014; Little, Card, Bovaird, Preacher & Crandall, 2007). Finally, the assessment of the structural model in PLS-SEM involved the following criteria: i) the significance of the path coefficients, ii) coefficient determination (R^2), iii) the effect size (f^2), and iv) predictive relevance (Q^2) (Hair et al., 2014; Hair et al., 2013).

4.8.2.1 Hypotheses Testing for Direct Relationships

As presented in Figures 4.3 and 4.4, both the models specifically analysed direct relationships represented by hypotheses H1: EAW significantly related to SMEs'

performance; H2: ESE significantly related to performance; H3: VBP significantly related to performance.

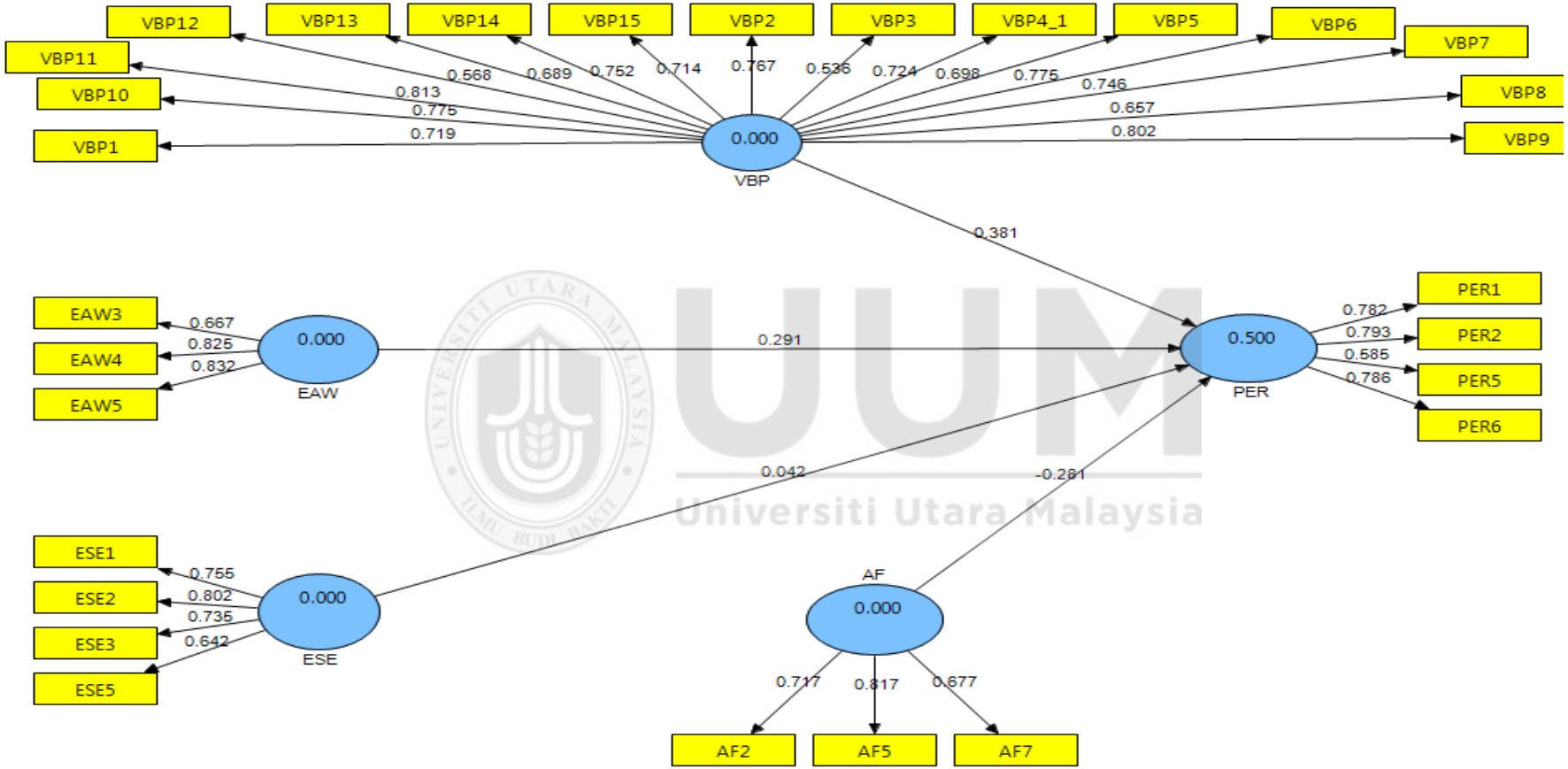

Figure 4.3
PLS Algorithm (Direct Relationships)

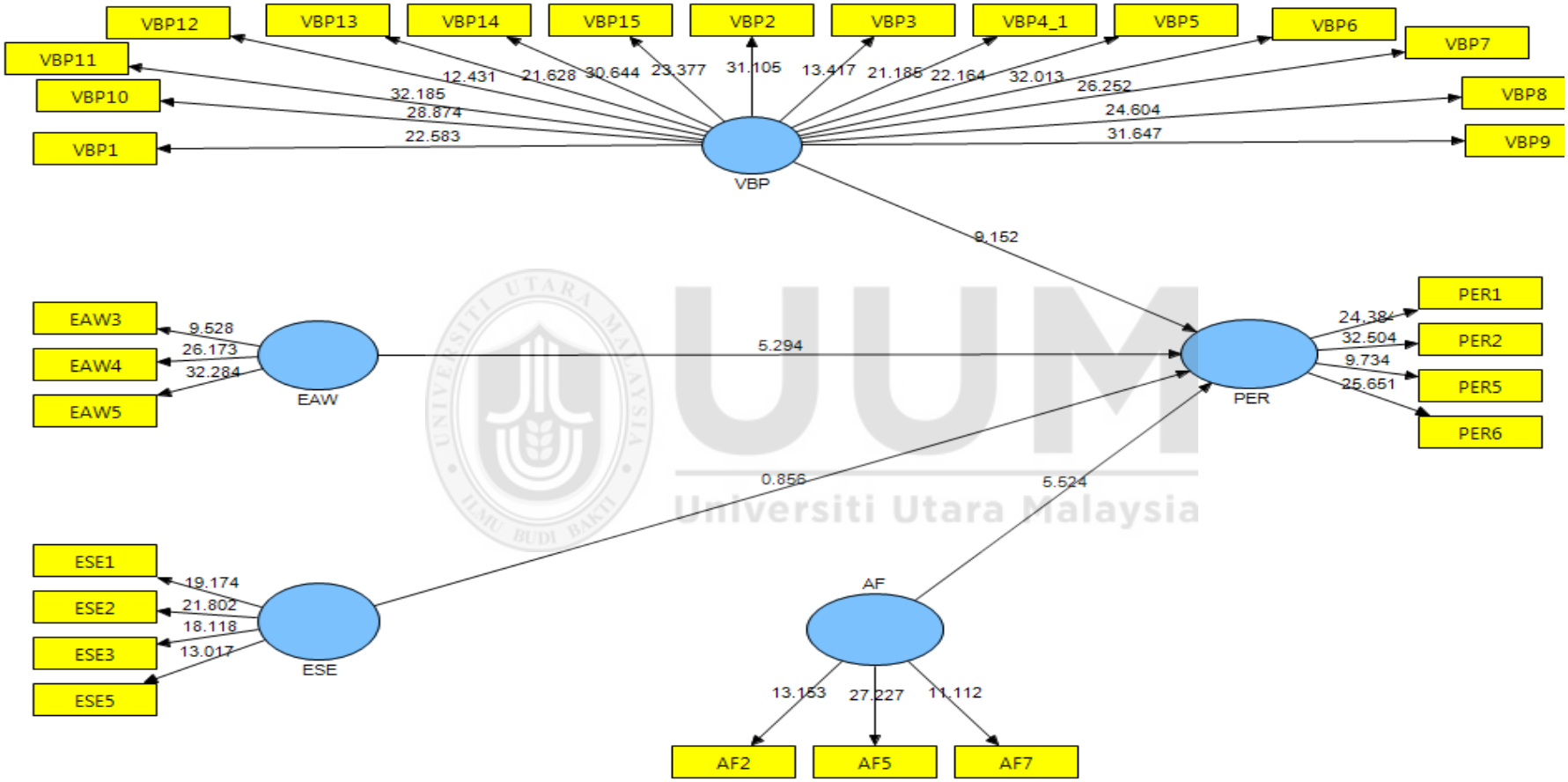

Figure 4.4
Bootstrapping (Direct Relationships)

Table 4.11 presents the results of the structural model based on the direct relationships between the predictors and criterion variables. These results are interpreted using the path coefficients (β), standard error (SE) and t-value (T Statistics). The asterisk (*) represents the level of significance based on the alpha value. Specifically, two asterisks (**) indicate that the relationship is significant at 0.01 and one asterisk (*) at 0.05 alpha value.

Table 4.11
Results of Hypotheses Testing (Direct Relationships)

Hypotheses	Relationship	Beta (β)	SE	T Statistics	Decision
H1	EAW -> PER	.29	.06	5.22**	Supported
H2	ESE -> PER	.04	.05	0.87	Not supported
H3	VBP -> PER	.37	.04	9.25**	Supported

Note: **Significant at 0.01, *significant at 0.05.

Based on Table 4.11, the statistical analysis proved that H1 is supported, with EAW significantly and positively related to SMEs' performance (β=.29; t=5.22), this as a result of the effort of Nigerian government toward the increase in citizen's intention on entrepreneurial activities. However, ESE does not significantly influence performance (β=.04; t=.87), so H2 is not supported. This result may be as a result of entrepreneur's inability to make a critical decision related to their operations or in dealing with the external financier. There is a significant positive influence of VBP on performance (β=.37; t=9.25), so H3 is supported. This implies that Nigerian SMEs has effective and viable business plan that can increase their performance, this is as a result of partnership exist between SMEDAN and Bank of Industry (BOI) that provide opportunity for SMEs' owner/managers that are not capable of preparing business plan to have contact with the consultant for them to access the available

entrepreneurial opportunities. To summarise, two of the direct relationships between the latent exogenous and endogenous constructs are supported empirically, in line with their respective hypothesis statements. However, ESE does not significantly affect SMEs' performance based on the statistical data of the present model.

After the assessment of the significance and relevance, the coefficient of determination or assessment of the level of R^2 was used to evaluate the structural relationships in the PLS-SEM model (Hair et al., 2016; Hair et al., 2014; Henseler et al., 2009). The next section presents assessment of the level of R^2.

4.8.2.2 Coefficient of Determination (R^2)

The coefficient of determination (the R^2 value) is important in evaluating the structural model; it is calculated as the squared correlation between the endogenous construct's actual and predicted values (Hair et al., 2016; Hair et al., 2014). The value of R^2 represents the collective effects of the exogenous latent variables on the latent endogenous variable (Hair et al., 2010, 2014, 2016). As the acceptable level of R^2 depends on the complexity of the model and the research discipline, it is difficult to provide a threshold; however, some researchers have stated some values as a rough rule of thumb (Hair et al., 2014). They considered R^2 values of .75 as substantial, .50 moderate and .25 as weak in studies explaining customer satisfaction or loyalty (Hair et al., 2011; Hair et al., 2014, 2016; Henseler, Ringle, & Sinkovics, 2009). Then again, R^2 values of .67, .33 and .19 are considered as substantial, moderate and weak respectively in the PLS-SEM modeling proposed by (Chin, 1998). Table 4.12 presented the R^2 value of the endogenous variable of the direct relationships model in this study.

Table 4.12
Coefficient of Determination: R-Squared

Construct	R-Squared Value (R^2)
SMEs Performance	.500

Source: *Survey analysis*

As shown in Table 4.12, the exogenous latent variables of this study (EAW, ESE, VBP and AF) explain 50% variance of SMEs' performance. Considering Chin's (1998) recommendation, the R^2 value explained by the exogenous constructs on the endogenous construct in their direct relationships is moderate.

4.8.2.3 Assessment of Effect Size (f^2)

After evaluating R^2 of the endogenous variable (SMEs' performance), it was necessary to evaluate the change in the value of R^2 when a single exogenous variable was excluded from the model, to assess whether the omitted variable had any substantial impact on the latent endogenous variable. This is known as effect size (Hair et al., 2014, 2016). Specifically, effect size indicates the relative effect of a particular exogenous latent variable on endogenous latent variable(s) by means of changes in R^2 (Chin, 1998). It is calculated as the increase in R^2 of the latent variable to which the path is connected, relative to the latent variable's proportion of unexplained variance (Chin, 1998). Therefore, the effect size could be expressed using Cohen's formula (Chin, 1998; Hair et al., 2014, 2016; Selya, Rose, Dierker, Hedeker, & Mermelstein, 2012), as follows:

Effect size: $$f^2 = \frac{R^2 \text{Included} - R^2 \text{Excluded}}{1 - R^2 \text{Included}} \quad (4.1)$$

Where:

f^2 is the f^2 value that determines the effect size of a specific exogenous construct on the endogenous construct. $R^2_{Included}$ is the R^2 value of the endogenous construct before omitting a particular exogenous variable. Lastly, $R^2_{Exluded}$ signifies the changes in the R^2 value of the endogenous construct after excluding a particular exogenous construct from a model. Therefore, in line with the above formula and according to Chin (1998), f^2 values of .02 indicate small, .15 medium and .35 large effects. Table 4.13 presents the respective effect sizes of the latent construct of the structural model for this study.

Table 4.13
Assessment of the Effect Size: F-Square

Latent Variable	**$R^2_{Included}$**	**$R^2_{Exluded}$**	**f^2**	**Effect size**
Entrepreneurial awareness	0.500	0.438	0.124	Small
Entrepreneurial self-efficacy	0.500	0.499	0.002	None
Viable business plan	0.500	0.386	0.228	Medium

Source: *Survey analysis*

Table 4.13 presents the effects size measures of the respective exogenous latent constructs on the endogenous construct in their direct relationships. As seen from the table, the effect sizes for the EAW and VBP on SMEs' performance (PER), were .124 (small) and .228 (medium) respectively. This implies that two exogenous latent variables that significantly affect the endogenous latent construct have a considerable effect on the endogenous latent variable (performance), whereas only one exogenous

latent variable (ESE) had zero effect size, indicating an insignificant relationship with the endogenous latent variable (see Table 4.11).

4.8.2.4 Assessment of Predictive Relevance (Q^2)

This study employed the Stone-Geisser test of predictive relevance of the research model via blindfolding techniques (Geisser, 1974; Stone, 1974). Duarte and Raposo (2010) reported that this test of is usually used as a supplementary assessment of GoF in PLS-SEM. Even though this study used blindfolding to ascertain the predictive relevance of the research model, it is worth noting that according to Sattler, Völckner, Riediger and Ringle (2010), the "blindfolding procedure is only applied to endogenous latent variables that have a reflective measurement model operationalisation" (p. 320). Reflective measurement model specifies that a latent or unobservable concept causes variation in a set of observable indicators. Therefore, because all endogenous latent constructs in the present study were reflective in nature, a blindfolding procedure was used.

Specifically, a cross-validated redundancy measure (Q^2) was employed to evaluate the predictive relevance of the research model (Chin, 1998; Geisser, 1974; Hair et al., 2014, 2016; Ringle et al., 2012; Stone, 1974). Q^2 is an important measure to evaluate how well a model predicts the data of omitted cases (Chin, 1998; Hair et al., 2014, 2016). As recommended by Henseler et al. (2009) a research model with Q^2 statistic(s) greater than zero is considered to have predictive relevance, while a model with higher positive Q^2 values suggests more predictive relevance. Table 4.14 and Figure 4.5 present the results of the cross-validated redundancy Q^2 test.

Table 4.14
Predictive Relevance (Q^2)

Construct	SSO	SSE	1-SSE/SSO
SMEs Performance	1416	1003.5427	0.2913

Note: (SSO; sum of square observations); (SSE; sum of squire prediction errors)
Source: *Survey analysis*

Table 4.14 presents the blindfolding result of the cross-validated redundancy (Q^2) of the latent endogenous construct (performance) of the model of this study. It indicated that the cross-validated redundancy (Q^2) is greater than zero, clearly indicating the presence of path model predictive relevance (Chin, 1998; Hair et al., 2014, 2016; Hayes, 2009).

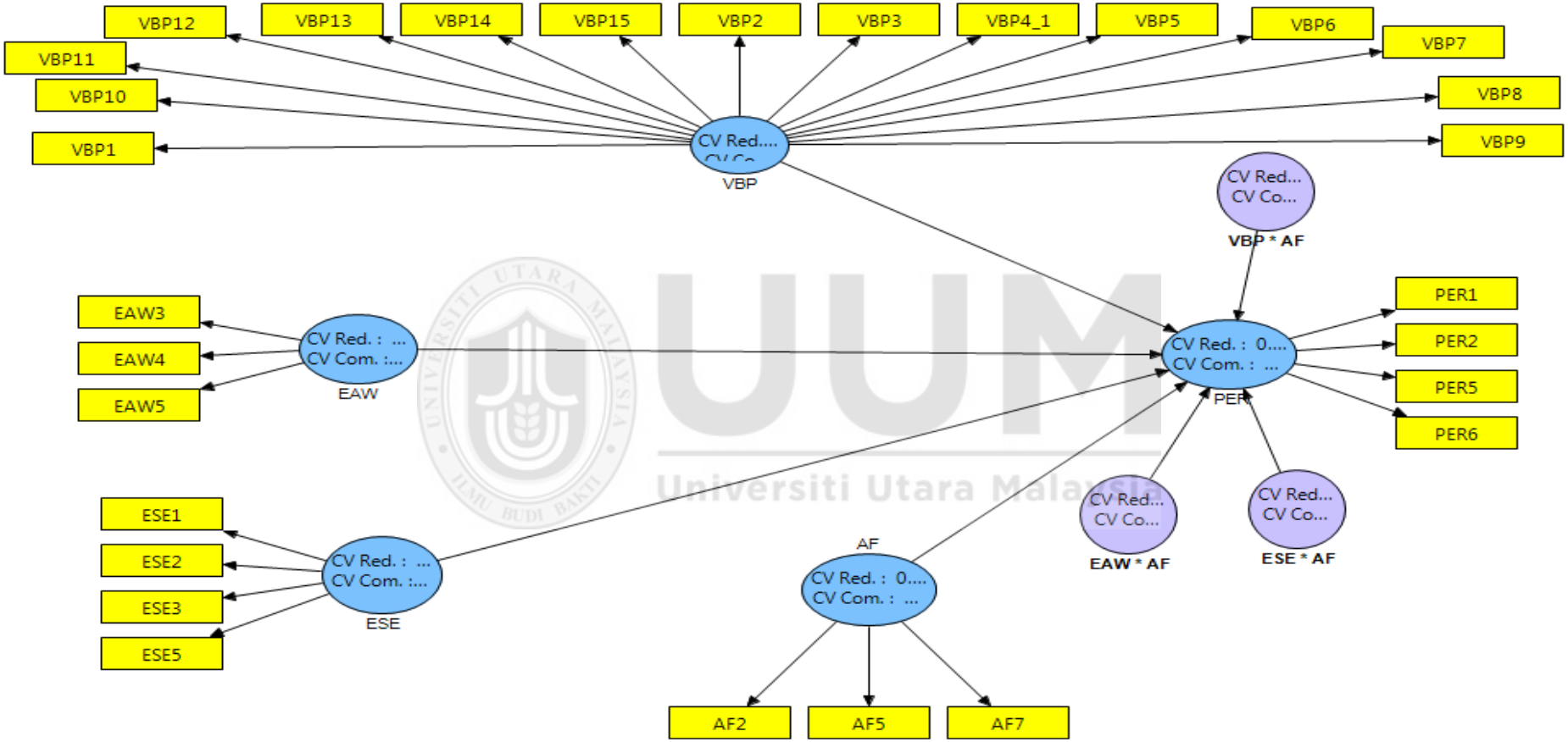

Figure 4.5
Predictive Relevance (Q^2)

4.8.2.5 Testing the Moderating Effect

After examining the main effects of the independent variables, including the moderator on the dependent variable, as indicated in Figures 4.3 and 4.4, the next step was to examine the interaction term (i.e. the multiplication of independent variables by the moderator variable) (Esposito Vinzi, Trinchera, & Amato, 2010). The product of the indicators of the variables is used to reflect the latent interaction variables (Chin, Marcolin & Newsted, 2003; Henseler & Chin, 2010; Henseler & Fassott, 2010). The present study selected the product term approach since the moderating variables are continuous (Schumacker & Marcoulides, 1998). "Given that the results of the product term approach are usually equal or superior to those of the group comparison approach, we recommend always using the product term approach" (Henseler & Fassott, 2010, p. 721).

To employ the indicator product approach in testing the moderating effects of AF on the relationship between EAW and SMEs' performance; ESE and SMEs' performance; and VBP and SMEs' performance in the structural model, the independent variable latent indicators and the moderator variable latent indicators need to be created; therefore, these product terms could be used as the interaction term indicators (Kenny & Judd, 1984). However, the moderating effect holds only when these interaction terms are significant (Hair et al., 2013) (see Figures 4.5 and 4.6). Likewise, to determine the strength of the moderating effects, Cohen's (1988) guideline was applied in this study for determining the effect size. Therefore, Table 4.15 and Figure 4.7 present the estimates after applying the product indicator

approach to examine the moderating effect of AF on the relationship between exogenous and endogenous latent constructs.

Based on the this procedure, the results of the interacting effects between AF on the relationship between EAW and SMEs' performance, ESE and SMEs' performance, and VBP and SMEs' performance were examined and reported. The model in Figures 4.3 and 4.4 test whether the prediction of SMEs' performance, from EAW, ESE, VBP, can be improved when AF as a moderating variable become significant.

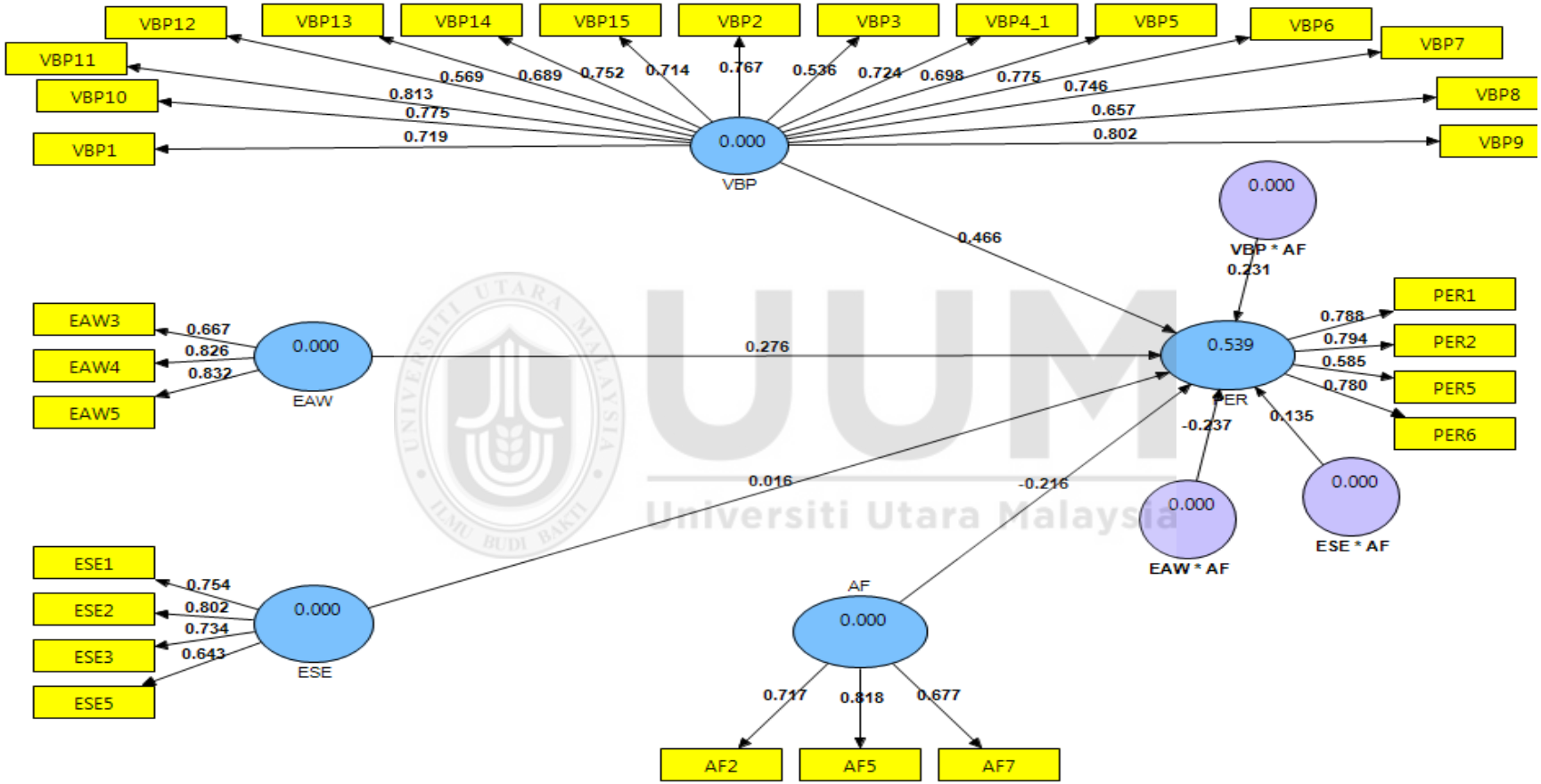

Figure 4.6
PLS-SEM Algorithm Interactions

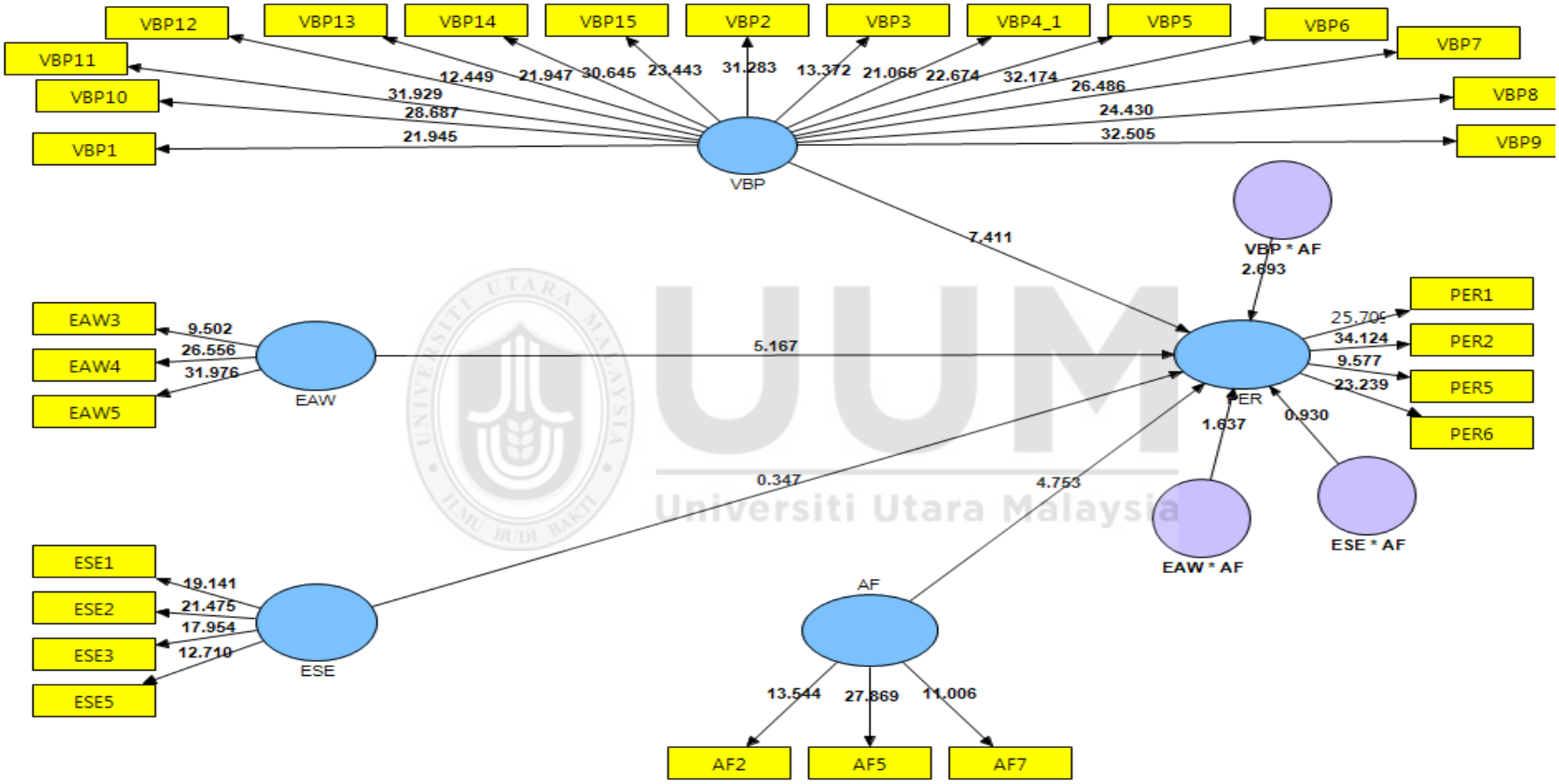

Figure 4.7
PLS-SEM Bootstrapping Interactions

The result of the hypothesis testing indicates that AF has a significant moderating effect on the relationship between VBP and SMEs' performance; whereas the moderating effect is not significant on the relationship between EAW and SMEs' performance or on ESE and SMEs' performance (see Table 4.15 below). Moreover, it was indicated in Figure 4.6 that the interaction terms representing EAW*AF and SMEs' performance were statistically not significant (β = -.237; t = 1.647). Therefore, H4 is not supported. Similarly, H5 is not supported, as the result in Table 4.15 indicated no significant effect of the interaction term, i.e. ESE*AF and SMEs' performance (β=.135; t=.912). Finally, the interaction term of VBP *AF and SMEs' performance is significant (β= .231; t= 2.618), as shown in Table 4.15 and Figure 4.7; thus, H6 is supported. Table 4.15 presents the results of the moderation hypothesis.

Table 4.15
Moderation hypothesis

Hypotheses	Relationship	Beta (β)	SE	T Statistics	Decision
H4	EAW * AF -> PER	-.237	.144	1.647	Not supported
H5	ESE * AF -> PER	.135	.148	0.912	Not supported
H6	VBP * AF -> PER	.231	.088	2.618**	Supported

Note: **Significant at 0.01, *significant at 0.05.

Figures from the path coefficients were used to plot the moderating effect of AF on the relationship between VBP and SMEs' performance, based on the procedures recommended by West, Aiken and Todd (1993) and Marcus, Schuler, Quell and Hümpfner (2002). As shown in Figure 4.7, the relationship between VBP and SMEs' performance is stronger for SMEs with high AF than for SMEs with low AF.

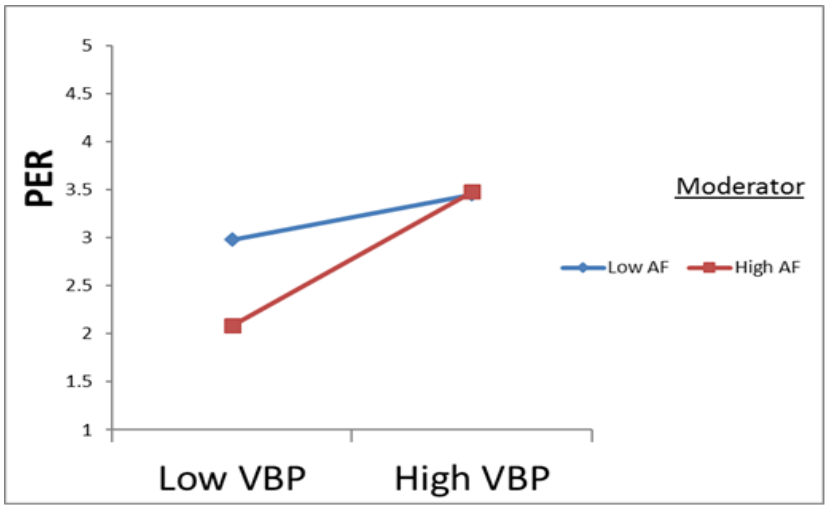

Figure 4.8
Interaction effect of access to finance on viable business plan and SMEs performance

4.8.2.6 Determining the Strength of the Moderating Effects

Cohen's (1988) effect sizes were calculated in order to determine the strength of the moderating effects of AF on the relationship between EAW, ESE and VBP. Further, the strength of the moderating effects can be evaluated by comparing the coefficient of determination (R^2 value) of the main effect model with the R^2value of the full model that combines both exogenous latent variables and the moderating variable (Henseler & Fassott, 2010). Therefore, the strength of the moderating effects can be calculated using the following formula (Chin, 1998; Henseler & Fassott, 2010):

Effect size: = $$f^2 = \frac{R^2\text{i} - R^2\text{m}}{1 - R^2\text{i}} \qquad (4.2)$$

Where:
m = main effect model (without the moderator)
i = interaction effect model (with the moderator)

Moderating effect values (f2) can be considered as weak, moderate or substantial (strong) if the effect size is .02, .15 and above .35 respectively (Cohen, 1988;

Henseler & Fassott, 2010). However, lower effect size does not necessarily mean that the underlying moderating effect is insignificant (Chin et al., 2003). "Even a small interaction effect can be meaningful under extreme moderating conditions, if the resulting beta changes are meaningful, then it is important to take these conditions into account" (Chin et al., 2003, p. 211). Table 4.16 presents the results of the strength of the moderating effects of AF.

Table 4.16
Strength of the Moderating Effects

Endogenous latent variable	$R^2_{Included}$	$R^2_{Exluded}$	f^2	Effect size
SMEs performance	.539	.500	.085	Small

Source: *Survey analysis*

Based on the rule of thumb by Henseler and Fassott (2010) and Cohen (1988) for determining the strength of the moderating effects, Table 4.16 indicates that the effect size for SMEs' performance was .085, signifying that the moderating effect was small.

4.9 Summary of Findings

Having presented all the results, including main and moderating effects, in the preceding sections, Table 4.17 summarises the results of all the hypotheses tested.

Table 4.17
Summary of Hypotheses Testing

Hypothesis	Statement	Finding
H1	Entrepreneurial awareness significantly related to SMEs' performance.	Supported
H2	Entrepreneurial self-efficacy significantly related to SMEs' performance.	Not-supported
H3	Viable business plan significantly related to SMEs' performance.	Supported
H4	Access to finance significantly moderate the significant relationship between entrepreneurial awareness and SMEs' performance	Not-supported
H5	Access to finance significantly moderate the significant relationship between entrepreneurial self-efficacy and SMEs' performance	Not-supported
H6	Access to finance significantly moderate the significant relationship between viable business plan and SMEs' performance.	Supported

Source: *Survey analysis*

4.10 Summary of the Chapter

Presentations of the results of the statistical analysis on the quantitative data collected from the field survey were described in this chapter. The chapter started by presenting the report of the initial data examination and data screening, including response rate test, assessment of missing values, outliers, normality tests, test for non-response bias, common method bias and multicollinearity assessment. Next, the chapter presented sample characteristics of the respondents, and then both the measurement and structural models, which were assessed with PLS-SEM using SmartPLS 2.0. The results from the hypothesis testing based on the evaluation of the

structural model were also reported. Chapter 5 discusses the findings, implications, limitations, suggestions for future research directions and lastly the conclusion of the study.

CHAPTER FIVE

DISCUSSION, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

This chapter discusses the main research findings on the basis of the results analysed and presented in the previous chapter. It also presents the theoretical and practical contributions and implications of the findings of this study. It highlights the research limitations and offers directions for future research. In the final section, a conclusion is drawn.

5.2 Recapitulation of the Study's Findings

The primary objective of this study is to examine the moderating role of AF on the relationship between EAW, ESE, VBP and the performance of SMEs in North-western Nigeria. Generally, this study has succeeded in advancing the current understanding of the key determinants of SMEs' performance by providing answers to the following research questions:

1. Is entrepreneurial awareness significantly related to the performance of SMEs in North-western Nigeria?
2. Is entrepreneurial self-efficacy significantly related to the performance of SMEs in North-western Nigeria?
3. Is viable business plan significantly related to the performance of SMEs in North-western Nigeria?

4. Does access to finance moderate the significant relationship between entrepreneurial awareness and the performance of SMEs in North-western Nigeria?
5. Does access to finance moderate the significant relationship between entrepreneurial self-efficacy and the performance of SMEs in North-western Nigeria?
6. Does access to finance moderate the significant relationship between viable business plan and the performance of SMEs in North-western Nigeria?

Based on the main objective of the study, a total of seven objectives were formulated according to these research questions, developed from the problem statement in the preceding chapters. The direct relationship between the exogenous latent variable was hypothesised to have a significant effect on the endogenous latent variable (SMEs' performance), and the link was also hypothesized to be moderated by AF. Examining these relationships will provide avenues to boost SMEs' performance. This framework is supported by RBV and POT, which postulates that performance is influenced by a firm's valuable tangible and intangible resources and access to financial capital should interact with other internal resources in explaining SMEs performance.

Thus, in this study, the strategic resources EAW, ESE and VBP are the intangible resources. Six hypotheses were formulated and tested statistically by PLS-SEM using SmartPLS 2.0. The findings indicated support for three hypotheses, two of which are direct and one is the moderating hypothesis.

5.3 Discussion

In this section the study's findings are discussed based on relevant theories and the findings of previous research. It is organised in the order of the research questions.

5.3.1 Entrepreneurial Awareness and Performance of SMEs in Nigeria

At first, the hypothesized relationship between EAW and SMEs' performance was tested and the findings of this study support the relationship that EAW is related to SMEs' performance. This signified that H1 is supported (β=.29; t=5.22). This empirical finding agrees with the results of earlier studies (Homburg et al., 2010; Janicik & Bartel, 2003; Johnson, 2005; Mansor et al., 2012; Montiel-Campos et al., 2011; Panian & Spremić, 2004; Thong et al., 2013; Ugwu & Ezeani, 2012), which argue that EAW significantly influences performance. As the result validates the hypothesis, it also provides an answer to the respective research question. This finding also supports RBV that focus on internal resources in enhancing organisational performance, and this VRIN resource has a significant positive influence on the firm's performance.

This study would want to further elaborate that high level of EAW is therefore an important factor in improving the performance of SMEs. In short, this result suggests that SMEs, in the Nigerian context, need to have high level of EAW, particularly of entrepreneurial financial opportunities and other entrepreneurial programmes, as these can help SME owner/managers identify more entrepreneurial opportunities, which in turn will lead to achieving higher performance. Therefore, there is need for Nigerian government and it agencies (SMEDAN, BOI and NIPC etc.) to improve

their channel of disseminating information on the existence of the available entrepreneurial opportunity, so that SMEs owner/managers would be more aware of it even those that they are in the remote areas. This study contributes to the field of knowledge by further opening up and clarifying the relationship that exist between EAW and SMEs' performance in Nigerian context.

5.3.2 Entrepreneurial Self-efficacy and Performance of SMEs in Nigeria

The second objective was not achieved: H2 hypothesised that ESE significantly relates to SMEs' performance but, against expectations, it was not supported in this study because there is no sufficient statistical evidence to support the claim that ESE is related to SMEs' performance (β=.40; t=.87); it shows that ESE does not significantly affect SMEs' performance. However, this disagrees with the findings of some earlier studies (Anna et al., 2000; Ballout, 2009; Baum & Locke, 2004; Drnovšek et al., 2010; Forbes, 2005; Herath & Mahmood, 2014; Hmieleski & Corbett, 2008; Torres & Watson, 2013; Trevelyan, 2011), although it supports others (Herath & Mahmood, 2014; Hmieleski & Baron, 2008; Hmieleski & Corbett, 2008; Oyeku et al., 2014; Torres & Watson, 2013).

Some clarification liable is required. One explanation of this result may be based on the statement that entrepreneurs with high self-efficacy are more likely to face challenges attached to their firm's growth and continue in their managerial efforts toward the achievement of their stated goals (Anna et al., 2000; Forbes, 2005). Another is that it may be the result of the contextual sensitive nature of ESE; the literature indicated a positive relationship between high ESE and a firm performance's in combination with moderate optimism in a dynamic environment,

while and it became weak in a stable environment (Hmieleski & Baron, 2008; Oyeku et al., 2014). These authors concluded that a high level of ESE is not always positive and may have negative effects in certain conditions and contexts. Therefore, this finding is not unexpected because it may be the result of the critical environment in the Nigerian context (SMEDAN, 2012). Again as discussed in the problem statement of this study in chapter one, that there is inadequate infrastructural facilities which affect entrepreneurial effort and in turn lead to poor performance. It was learned from the survey of this study that SMEs owner/managers lack the ability to influence their customers; therefore, this study calls for improvement in ensuring cordiality in dealings with their customers.

5.3.3 Viable Business Plan and Performance of SMEs in Nigeria

The statistical findings of this study showed VBP to be positively and significantly related to SMEs' performance; thus, H3 is supported (β=.37; t=9.25). VBP is therefore shown to be an important factor in improving the performance of SMEs in Nigeria. This may be as a result of effort made by SMEDAN in connecting owner/managers with planning consultants for their guide in preparing business plan that will be viable to external financier. In summary, this suggests that SMEs in Nigeria have effective VBP, which in turn leads to achieving higher performance. This finding is in line with those of prior studies that reported a positive relationship between business planning and SMEs' performance (Brinckmann et al., 2010; Delmar & Shane, 2003; Gartner & Liao, 2005; Hopkins & Hopkins, 1997; Kee-luen, Thiam-yong, & Seng-fook, 2013; Lange et al., 2006; Shane & Delmar, 2004). This result also concurs with the theoretical explanations of performance based on firms'

valuable resources, as assumed by RBV. It offers SMEs owner/managers comprehensive understanding of the benefits derived from effective business planning.

5.3.4 Moderating Effect of Access to Finance

AF refers to the opportunity of SMEs to easily access readily available financial resources with minimal or slight financial and non-financial hurdles. AF is among the critical elements that supports SMEs' business activities in any economy (Xavier et al., 2013). This study has proposed AF as a moderator on the relationship between EAW, ESE, VBP and SMEs' performance. In theory, POT that highlighted that financial capital should stimulate a firm's performance and successful implementation of strategic resources appears to require access to significant resources (Shirokova et al., 2013). RBV emphasised that a firm is considered as a pool combining both human and physical resources in an organisational structure (Barney, 1991). It also recognises the importance of resources in increasing a firm's performance (Rumelt, 1984).

In line with the research questions, the three main objectives of this study were to assess the moderating effect of AF on the relationship between EAW, ESE, VBP and SMEs' performance respectively. It should be noted that the findings regarding moderating effects represent the main contribution of this research; possible explanations for the moderating effect of AF can be deduced from the theoretical perspectives rather than prior empirical studies. This is explored in the sections below.

5.3.5 Moderating Role of Access to Finance on the Significant Relationship between EAW and Performance of SMEs in Nigeria

To answer the fourth research question, H4 was formulated and tested using PLS path modeling. The findings show that there is no significant moderating effect of AF on the relationship between EAW and SMEs' performance (β=-.237; t=1.647). Therefore, H4 is not supported. This was not as expected. The direct relationship between EAW and SMEs' performance was positively significant, so it was expected that if SMEs with a high level of EAW (the firm's intangible resources) have access to financial capital (its tangible resources) they will perform better than those that do not have AF. In contrast, the statistical results reported that AF does not enhance the relationship between EAW and SMEs' performance in Nigeria. Hence, H4 is rejected. This result is not surprising, given RBV's assumption that firms with VRIN resources such as AF will perform better than those without such resources. However, the result of this study indicated the opposite, and it may require further explanation to place this finding in its proper context.

Though, POT suggests hierarchical choice of available financing for SMEs, the survey report of this study discovered that SMEs owner/mangers in this context are not aware of the procedure of accessing available financial resources. It also they prefer financing their enterprise using trade credit facilities from suppliers to finance and other external financier and paid the interest rates charged on external financing. While the interest rate has a negative impact on the growth of SMEs, because the Central Bank of Nigeria's (CBN) policy on interest rates has not been consistent over time access to credit continues to pose a major problem to SMEs in Nigeria since the

traditional and informal financial institutions (*Asusu and Ensusu*) have not been able to meet their credit needs (Onakoya et al., 2013).

Equally, the literature revealed that access to financial capital appears to play a significant role and may produce different effects on performance depending on the specific configuration (degree of environmental dynamism); AF has a less pronounced effect on performance in stable environments (Frank et al., 2010). Thus, the businesses in the study sample operate in an especially dynamic environment (SMEDAN, 2012). Further clarification for the results of this study is based on issues highlighted by Mohammed and Obeleagu-Nzelibe (2014) and SMEDAN (2012), which include a concern for social desirability and the ambitious expectations of some entrepreneurs, leading to the utilisation of funds and available capacity for unimportant endeavours (i.e. the financial resources intended for entrepreneurial activities are diverted to personal use).

Another vital issue is the problem of bias against made-in-Nigeria goods, which has been established as significant (SMEDAN, 2012). Infrastructure problems range from shortage of water and inadequate transport systems to lack of electricity. This implies that significant resources have been expended in providing such infrastructure, which could otherwise be channelled for productive purposes in SMEs (Mohammed and Obeleagu-Nzelibe, 2014). Equally, domestic economic problems which necessitated deregulation and slightly minimised government's visible presence, together with the global financial crisis, have unfortunately been detrimental to SMEs, hindering the success of SMEs in Nigeria.

Thus, it is clear that the Nigerian business environment has little or no capacity to support growth and development of SMEs (SMEDAN, 2012). Response to the environment is limited to SMEs' tangible and intangible resources as well as the opportunities offered by the industry and the environment. Hence, SMEs need to understand that their resources should be effectively and efficiently utilised to minimise the adverse effects of the business environment. This study calls for revise and simplify the procedure of accessing available financial resources for SMEs.

5.3.6 Moderating Role of Access to Finance on the Significant Relationship between ESE and Performance of SMEs in Nigeria

In answering the fifth research question, further hypotheses was formulated and tested using PLS path modeling. H5 states that AF significantly moderates the relationship between ESE and SMEs' performance. Unfortunately, the result demonstrates no support for the hypothesised moderating role of AF on the relationship between ESE and SMEs' performance. Hence, H5 is not supported. The SmartPLS 2.0 output indicated that t-value of the interaction between ESE and AF is not significant (β=.135; t=.912). This result, however, was not entirely unexpected, given the fact that the relationship between ESE and SMEs' performance was not significant in the direct relationship discussed previously. This result is similar to the findings of Frank, Kessler and Fink (2010) and Wiklund and Shepherd (2005), that provide two-way interaction reports where AF does not moderate the entrepreneurial orientation of the relationship with the firm's performance. Additionally, this finding may be result from the recognised unfriendliness of the Nigerian business environment (SMEDAN, 2012). This is justified by the literature, which indicated

that high ESE is positively related to performance when combined with moderate optimism in dynamic environments; it tends to become weak or not significant in a stable environment (Hmieleski & Baron, 2008; Oyeku et al., 2014). That is, a high level of self-efficacy is not always positive and may have negative effects in certain conditions and contexts. This result may also be explained by the fact that the majority of SMEs in Nigeria operate in a non-supportive environment, with a very low level of infrastructure, inconsistent government policies and insecurity challenges (SMEDAN, 2012).

5.3.7 Moderating Role of Access to Finance on the Significant Relationship between VBP and Performance of SMEs in Nigeria

To achieve the final objective, H6 was formulated and tested using PLS path modeling. The hypothesis stated that AF moderates the significant relationship between VBP and SMEs' performance. As expected, the result supports H6 (β=.231; t=2.618), suggesting that Nigerian SMEs with a high level of VBP need to have high AF in order to utilise the available resources effectively and efficiently, which in turn leads to the achievement of higher performance. It also indicates that the relationship between VBP and SMEs' performance is stronger for SMEs with high AF than those with low AF.

To this end, SMEs need to recognise the importance of accessing financial resources, as higher performance depends on their ability to find finance. In other words, the performance of SMEs that have no AF is different from the performance of SMEs which generate substantial cash flow and invariably have access to both internal and external financial capital. It could be argued that SMEs with access to financial

resources, given their assumed high VBP, are also more likely to employ more staff, and have investment plans, high sales volume and profit. This finding further support for the assertion of RBV and POT, that performance is achieved through the efficient utilisation of the firm's bundle of resources, such as VBP and finance and the successful implementation of VBP as strategic resources appears to require access to significant resources (Shirokova et al., 2013).

In conclusion, some of the moderating results of the present study confirm POT for SMEs (Matlay, Johnsen & McMahon, 2005), and offer supplementary evidence for the supposition of RBV (Barney, 1991). According to POT, internal financing is the most favoured source of financing for SMEs. Nevertheless, their ability to improve their internal finance depends on how they organise their bundle of resources. As retained profit is thus the favourite source of finance, engaging appropriate strategic resources (EAW and VBP) and having good access to financial resources will give SMEs all the necessary capacity to generate more profit. Similarly, the ability to access financial resources clearly depends on the strategic decisions of SMEs (Steinerowska-Streb & Steiner, 2014).

In this respect, SME operators who exploit available entrepreneurial opportunities by applying strategic resources (EAW and VBP) may reinvest in more profitable business activities, realise more profits and sales volume. Moreover, EAW and VBP appear as viable predictors of SMEs' performance; the evidence suggests that combining these with other tangible resources (AF) will result in better performance. Consistent with RBV, the findings suggest that strategic resources are valuable and

in sophisticated firms could lead to competitive advantages. The next section discusses the implications of this study.

5.4 Implications of the Study

Currently academic researchers, governments and practitioners worldwide are concentrating on the performance of SMEs, and the variables which might influence their performance. In the context of the performance of Nigerian SMEs, this study has theoretical, practical and methodological implications, discussed in the following sub-sections.

5.4.1 Theoretical Implications

The conceptual framework was developed to fill in gaps identified in the literature and supported by the two underpinning theories introduced above. The hypothesised model was supported from RBV and POT perspectives. Consequently, it provides empirical evidence for the theoretical relationships hypothesised in the research framework. It highlights the moderating role of AF on the relationship between EAW, ESE and VBP respectively on the performance of SMEs in Nigeria. Of the study's seven hypotheses, four were supported.

Considerable evidence has accumulated regarding the factors of SMEs' performance. A comprehensive review of the literature identified several factors influencing SMEs' performance. The most commonly investigated were entrepreneurial orientation (Fairoz et al., 2010; Kraus et al., 2012; Moreno & Casillas, 2008), market orientation (Cano et al., 2004; Chao & Spillan, 2010; Gaur et al., 2011), dynamic capabilities (Lin & Wu, 2014; Protogerou et al., 2012), organisational learning

(Jiménez-Jiménez & Sanz-Valle, 2011; Michna, 2009; Pérez López et al., 2005), absorptive capacity (Flatten et al., 2011; Mustafa Kamal & Flanagan, 2012), and total quality management (Anderson & Sohal, 1999; Carlos Pinho, 2008; Kober et al., 2012).

Although these factors have provided important insights into the determinants of SMEs' performance, only a limited number of studies investigated the idea that the performance of SMEs may be influenced by EAW, ESE and VBP respectively especially as major drivers in a single study. Similarly, there are few if any studies on the moderating effect of AF on the relationship between EAW, ESE, VBP and SMEs' performance. In a nutshell, most of the previous studies investigated EAW, ESE and VBP in isolation, failing to combine the influence of all three variables on SMEs' performance, and producing inconsistent findings. Hence, replication of such studies is warranted, and this motivated the application of the moderating role of AF (Baron & Kenny, 1986). This is the unique contribution of this study.

The findings reported that EAW and VBP have a significant and positive impact on performance. The study provides additional understanding on the importance of AF in predicting SMEs' performance, further empirical support for the research framework, and validation of the proposed framework, as presented in the preceding chapter. Likewise, this study contributes to the RBV and POT by providing empirical evidence to support them. RBV postulates that a firms' performance is influenced by its bundle of intangible and tangible resources. In the context of this study, EAW, ESE and VBP are regarded as an intangible resources and AF is the tangible resource.

This study also contributes theoretically by empirically testing the moderating role of AF on the relationship between EAW, ESE, VBP and SMEs' performance. The result indicated that AF significantly moderates the relationship between VBP and SMEs' performance in Nigeria. This implies that, in order to boost performance by managing VBP, SMEs need to improve their sources of finance. Therefore, this research suggests that SMEs may need to obtain better financial capital to improve their performance. The findings make another expected contribution to RBV, POT and the entrepreneurship literature by clarifying the role played by AF in organisational performance. The results further enhance researchers' knowledge on the moderating role of AF on the strategic resources and SMEs' performance, largely neglected by other studies.

A review of the literature on SMEs suggests that few empirical studies have been made on the effect of EAW, ESE and VBP on SMEs' performance, and virtually none in developing countries like Nigeria. Even in developed countries, studies have concentrated on individual performance rather than organisational performance (Ahmad & Muhammad Arif, 2015; Cervone & Wood, 1995; Cherian & Jacob, 2013; Mica Endsley & Robertson, 2000; Joseph & Imhanlahimi, 2011; Khattak & Kashif-Ur-Rehman, 2010). Consequently, by conducting this study in Nigeria, it is anticipated that it will improve the understanding of SMEs' performance in African and other developing countries. Lastly, the vast majority of studies on SMEs have focused on one sector rather than the entire population of SMEs (Ahmad, 2005; Ajemunigbohun, Ademola, & Iyun, 2014; Chwolka & Raith, 2012; Coleman & Kariv, 2014; Cumberland, Meek, & Germain, 2015; Gaur, Vasudevan, & Gaur,

2011; Hallak, 2008; Junaidu, 2012). Therefore, this study is among the few that have considered the entire sector of SMEs, especially in Nigeria.

5.4.2 Managerial and Policy Implications

SMEs are generally recognised as catalysts to economic development and employment generation. Thus, practitioners and other policymakers have to recognise that their decisions relating to SMEs have a direct impact on the activities of their enterprises. However, the literature review identified that poor AF results in slow growth and expansion of enterprises, and Nigerian SMEs operating in an unfriendly environment is the primary cause of their underperformance (Mohammed & Obeleagu-Nzelibe, 2014; SMEDAN, 2012; Udenka, 2013).

However, it is safe to assume that the Nigerian government is critically concerned about transforming, promoting and supporting the SME sector (Hassan & Olaniran, 2011), with various funding programmes and support agencies to assist them (SMEDAN, 2012). Lack of awareness of such government support programmes may be the reason most of the SME owners are not benefiting from these organisations. This indicates the need for government to improve its campaign awareness channels (i.e. through advertisements, workshops and other capacity-building programmes) in order to make these programmes familiar to SME owners.

Therefore, having established this fact, it is worthy of note that the significant relationship between EAW, VBP, AF and SMEs' performance in Nigeria may be due to the conscious and deliberate effort of the institutions to mobilise more SMEs

through the advocacy initiatives. This has added more flavour to the government's intention towards SMEs.

Likewise, the business environment in Nigeria weakens the support services, infrastructure and other regulatory frameworks. If SME owner/managers perceive the business environment to be unhelpful, they are discouraged from the investment habit and taking high-risk business opportunities. Similarly, a specialist report has revealed that Nigerian SMEs are in a critical situation as a result of instability in the global business environment, and hence owner/managers need to respond to strategies that would safeguard their businesses from collapsing, giving them a competitive advantage (Alawode, 2013). Hence, the government and other policy makers should create an enabling environment that will encourage an entrepreneurial atmosphere among the SME owners in Nigeria.

However, the empirical findings of this study proved a significant relationship between EAW, VBP, AF and SMEs' performance in Nigeria, although ESE was found not to predict performance. AF was also found to moderate the relationship between VBP and SMEs' performance, but not that between EAW and SMEs' performance or ESE and SMEs' performance.

Consequently, the present study is useful to the government and its agencies (e.g. SMEDAN), business practitioners, as well as business and academic researchers, in furthering understanding of how the tangible and intangible resources in this model influence SMEs' performance in Nigeria. It will also be useful in designing forthcoming programmes for entrepreneurship activities in the country. As the EAW and VBP are vigorous issues that need to be considered in sound business

management, some of the concepts used in the study can be considered in curriculum design and other training programmes. Similarly, the Central Bank of Nigeria would benefit from the findings of the present study, as they will serve as a guide in resource allocation and offer a formula to commercial banks in assisting SMEs. The outcome is equally relevant to government at all levels (federal, state and local government) in providing information on SMEs' performance for them to develop different supportive policy initiatives. Likewise, the study findings serve as a road map for achieving Nigerian vision 20:2020 (i.e. Nigeria's target to be one of the 20 most industrialised nations in the world by the year 2020) (National Implementation Plan, 2010).

The results of this study will help SME owner/managers themselves by giving them an empirically tested outcome on some determinants of SMEs' performance to enable them to recognise the effects of the variables under study for improving their performance. This would help them develop good strategies regarding the development of their respective businesses so as to be relevant and gain competitive advantage. Finally, the findings will serve as a frame of reference for students, academics and other stakeholders in future research. The results will also help all stake-holders (i.e. agencies, both government and non-government organisations) in taking appropriate decisions as regards awareness campaigns on the existence and benefit of financial facilities, as well as the decisions regarding planning their own business activities.

5.4.3 Methodological Implications

In addition to the theoretical and practical contributions, the present study will contribute significantly to the body of knowledge from the methodological perspective. Earlier studies on SMEs' performance have utilised first-generation packages (SPSS) for their data analysis, but to the best knowledge of this researcher, very few have utilised SmartPLS-SEM modeling. The present study's use of PLS-SEM is more appropriate considering the model specification. To this end, this study contributes to our understanding, particularly when using complex structural models.

Another important issue is that most of the studies on EAW, ESE, VBP and AF were conducted using established instruments (Ajemunigbohun et al., 2014; Baum & Locke, 2004; Bracker & Pearson, 1998; Coleman & Kariv, 2014; Martin et al., 2007; Nambisan et al., 1999; Perry, 2002; Stewart, 2003; Suliyanto & Rahab, 2012; Wilson et al., 2007). Hence, replication of these studies is warranted, to enhance the validity and reliability of the construct and investigate their applicability in different contexts. The validity and reliability (i.e. composite reliability, convergent validity and discriminant validity) of our model were assessed and found to be satisfactory, serving as a further contribution to the methodology and literature of SMEs' performance.

A final methodological contribution of the present study concerns the latent endogenous construct (i.e. SMEs' performance). Most organisational studies concerned with the influence of resources on performance in a turbulent environment (e.g. Chang Lee, Lee, & Kang, 2005; Holsapple & Wu, 2011; Lin & Wu, 2014; Ravichandran & Lertwongsatien, 2005) have measured performance using traditional

financial indicators. Even though such measures (e.g. return-on-assets and return-on-investment) served well during the industrial era, they are out of vogue in accurately measuring the competences, skills and capabilities that firms are currently trying to master (Kaplan & Norton, 1992, 1995). Thus, these financial measures can give misleading indications for continuous innovation in today's competitive environment (Kaplan & Norton, 1992).

Suwignjo, Butitci and Carrie (2000) argued that such financial performance measurement systems failed in many ways, especially in integrating all factors that are critical to today's business success. Consequently, this led to the emergence of several performance models comprising both financial and non-financial measures as substitutes for the conventional financial ones (Vaivio, 1999; Wilcox, Bourne, Platts, Mills & Neely, 2000). Following the above discussions, the present study employed a performance model comprising both financial and non-financial indicators, which is appropriate for today's performance. However, the findings of this study also contribute to the body of knowledge concerning the impact of these resources on the financial and non-financial model of performance.

5.5 Limitations of the study

Despite the significant theoretical, practical and methodological contribution of this study, as in many investigative studies several limitations are recognised. However, such limitations may also offer avenues for future research. First, despite the fact that there are so many variables that can predict SMEs' performance; this study is limited to EAW, ESE, VBP and AF. Another shortcoming is that the performance concept

was measured as uni-dimensional constructs comprising financial and non-financial components of performance (Spillan & Parnell, 2006), neglecting to incorporate of financial and non-financial components independently in the same model. Furthermore, although this research targeted all types of SME, it would be useful to examine the performance of SMEs by sub-sector, such as agriculture, mining, fishing, building and construction, wholesale and retail, hotel and restaurants, transportation, real estate and education. Therefore, the study is limited by neglecting the fact that enterprise characteristics may differ according to the business type or sector.

Similarly, a quantitative methodology was adopted by the present study, relying on a single method of data collection (questionnaire). Respondents may not always be willing to answer questions correctly, and their answers may not be consistent or truly measure the study constructs.

This study was cross sectional in nature, using data collected over five months, which can be considered a short period of time. Sekaran and Bougie (2011) asserted that one of the shortcomings of cross-sectional studies is the inability to prove cause and effect associations among variables. The framework of this study only considers relationships between the variables, and no deep understanding of the cause and effect of such relationships.

Despite these shortcomings, the current study is a worthy attempt to investigate the relationship between EAW, ESE VBP and performance of Nigerian SMEs, with the moderating role of AF. Thus, it provides directions for future research as presented in the next section.

5.5 Suggestions for Future Research

To overcome the above limitations, this study recommends that future studies should be conducted on other strategic resources variables such as entrepreneurial skill, individual disposition, dynamic competence, social network, optimism, human capital, managerial competency and so on, to the performance relationship in Nigerian SMEs. The predictor variables selected for this study explain only 50% of the criterion variables on the direct relationship, suggesting that the remaining 50% of variables might have a strong positive relationship with performance. Future empirical studies on the relationship between strategic resources and SMEs' performance should also cover the entire six geo-political regions of Nigeria if the findings are to be generalised to the whole country.

This study confirmed the arguments of earlier work that infrastructure (such as electricity, water supply and good roads) is a strong factor influencing SMEs' performance in Nigeria. Therefore, future study should replicate the variables of this study and employ the moderating role of infrastructure facilities to strengthen the direct relationships. Moreover, this study employs a quantitative research design; future research might employ a mixed/triangulation design. For instance, qualitative interviews could be carried out with participant to give a better understanding of the relationship between the constructs under study. It is also suggested that future study should compare Nigeria and other developing economies, to give deeper insight and enable the comparative countries to assess their areas of strength and weaknesses.

Rather than the current cross-sectional approach, future studies might consider collecting data over a long period of time, for temporal comparison. They should also

investigate in more detail, to identify cause and effect relationships of SMEs' performance. The present study used owner/managers of SMEs as respondents, but future studies could also consider employee/subordinates' ratings of SMEs performance.

Even though the present study is free from the problem of common method variance it is recommended that future study should collect data from multiple participants (owners, managers and financiers), separately by enterprise, to minimise measurement errors. It is important for future study to incorporate financial and non-financial components independently in the same model.

Finally, no significant moderating influence of AF on the relationship between EAW, ESE and SMEs' performance was found, nor a direct relationship between ESE and SMEs' performance. The relationship between AF and SMEs' performance was indeed found to be negative. Thus, more research is needed to investigate these relationships as well as the moderating effects of AF on both EAW and ESE's relationships with performance. Future research is necessary to verify whether other moderating variables may strengthen this relationship.

5.6 Conclusion

The first research objective, to examine the relationship between EAW and SMEs' performance, was achieved. This implies that EAW is a good predictor of performance. The second objective, to examine the relationship between ESE and SMEs' performance, was tested but not supported, the statistical or empirical findings indicating no significant relationship between them. However, third

objective was achieved, by finding a significant positive direct relationship between VBP and performance.

To examine the moderating role of AF on the relationships between EAW, ESE and VBP respectively on the performance of SMEs in north western Nigeria, three hypotheses were tested to achieve these objectives, but only one was supported. The moderating role played by AF in the context of this study on the relationship between VBP and SMEs' performance was supported, unlike the cases of EAW and ESE, where AF had no moderating effect on the relationships between EAW and ESE on performance, respectively.

The theoretical framework of this study was based on the literature reviewed as well as on practical issues in the Nigerian context, with variables EAW, ESE, VBP and AF. All the research questions and research objectives were answered. The theoretical framework is in line with the underpinning theories (RBV and POT) which were used to design the framework.

Likewise, the study provides theoretical, practical, policy and methodological contributions in terms of the influence of EAW, ESE and VBP on SMEs' performance. From another perspective, it sheds light on how to measure a complex structural model using PLS-SEM path modelling, more specifically with SmartPLS2.0. The research findings go a long way in providing a strategic model of how Nigerian SMEs can improve their performance. Based on the limitations of the study, directions for future research were outlined. Finally, this research work has valuable implications for theoretical, practical and methodological aspects of Nigerian SMEs' performance.

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Appendices

Appendix A: Research Questionnaire

Othman Yeop Abdullah
Graduate School of Business,
Universiti Utara, Malaysia,
06010 Sintok, Kedah, Malaysia
Phone: (+604)
E-mail: oyagsb@uum.edu.my

Dear Respondent,

ACADEMIC REASERCH QUESTIONNAIRE

I am a PhD student in the above mentioned university, currently conducting a research on titled "The relationship between entrepreneurial awareness, entrepreneurial self-efficacy, viable business plan and SMEs performance: The moderating role of access to finance". I appreciate it if you would assist me by providing objective and sincere answers to all the questions as there is no right or wrong answers. All information provided will be treated as private and confidential. It will be solely be used for academic purposes.

Thanks,

Yours sincerely,

Kabir Shamsudeen
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SECTION 1

Please circle (O) the number that accurately indicates your organizational degree of agreement on how planning become a vital tool in forming a concrete ideas about the desired future of its business activities. Using the likert scale where 1 = Strongly disagree; 2 = Disagree; 3 = Somewhat disagree; 4 = Neither agree or disagree (Neutral); 5 = Somewhat agree; 6 = Agree; 7 = Strongly agree, below:

	Statements	SD	D	SWD	N	SWA	A	SA
01	Our enterprise prepares a written sales forecast.	1	2	3	4	5	6	7
02	Our enterprise prepares a written staffing forecast.	1	2	3	4	5	6	7
03	Our enterprise prepares annual written cash requirement forecast.	1	2	3	4	5	6	7
04	Our enterprise prepares a written capital expenditure forecast.	1	2	3	4	5	6	7
05	Our enterprise analyses the strength of its competitors and prepare a written identification of strategies and measurable goals over a foreseeable future.	1	2	3	4	5	6	7
06	Our enterprise prepares a written plan that provides satisfied information requested by external financiers.	1	2	3	4	5	6	7
07	Our enterprise prepares a written plan for public relation purpose to satisfy information requested by customers, prospective investors and employment candidates.	1	2	3	4	5	6	7
08	Our enterprise monitors its progress in comparison with its plans frequently.	1	2	3	4	5	6	7
09	Our enterprise incorporates its major goals and objectives spelled out in its plans into its employee performance appraisal system.	1	2	3	4	5	6	7
10	Our enterprise prepares a plan for defined and anticipated products that customers buy in sufficient quantities that attract a return on investment.	1	2	3	4	5	6	7
11	Our enterprise prepares a plan on the anticipated cost of producing and selling its defined products.	1	2	3	4	5	6	7
12	Our enterprise has a written statement of Vision.	1	2	3	4	5	6	7
13	Our enterprise has a written statement of mission.	1	2	3	4	5	6	7
14	Our enterprise developed a plan that is consistent with the strength and weakness.	1	2	3	4	5	6	7
15	Our enterprise review and evaluate its business plan frequently.	1	2	3	4	5	6	7

SECTION 2

Please circle (O) the number that accurately indicates your organizational level of awareness on entrepreneurial opportunity for your organizational success. Using the likert scale, where 1 = Strongly disagree; 2 = Disagree; 3 = Somewhat disagree; 4 = Neither agree or disagree (Neutral); 5 = Somewhat agree; 6 = Agree; 7 = Strongly agree, below:

	Statements	SD	D	SWD	N	SWA	A	SA
01	Our enterprise is aware of the existence of available entrepreneurial opportunities.	1	2	3	4	5	6	7
02	Our enterprise is aware of the procedure of accessing available entrepreneurial opportunities.	1	2	3	4	5	6	7
03	Our enterprise is aware of the nature of benefit to be derived from the available entrepreneurial opportunities.	1	2	3	4	5	6	7
04	Our enterprise is aware of the extent of the benefits to be derived from available entrepreneurial opportunities.	1	2	3	4	5	6	7
05	Our enterprise is aware of the types of the business activities that can take advantage of the available entrepreneurial opportunities.	1	2	3	4	5	6	7

SECTION 3

Please circle (O) the number that accurately indicates your organizational ability to exploit the existence entrepreneurial opportunities for organizational success. Using the likert scale, where 1 = Strongly disagree; 2 = Disagree; 3 = Somewhat disagree; 4 = Neither agree or disagree (Neutral); 5 = Somewhat agree; 6 = Agree; 7 = Strongly agree, below:

	Statements	SD	D	SWD	N	SWA	A	SA
01	Our enterprise has the ability to solve a particular problem.	1	2	3	4	5	6	7
02	Our enterprise has the ability to manage its financial resources.	1	2	3	4	5	6	7
03	Our enterprise has the ability to create business opportunity.	1	2	3	4	5	6	7
04	Our enterprise has the ability to influence its customers.	1	2	3	4	5	6	7
05	Our enterprise has the ability to maintain a positive outlook despite setbacks and negative feedback from competitors.	1	2	3	4	5	6	7
06	Our enterprise has the ability to make a critical decision relating to its operations.	1	2	3	4	5	6	7

SECTION 4

Please circle (O) the number that accurately indicates your organizational degree of agreement with the possibility to obtain financial resources with minimal financial barriers. Using the likert scale where 1 = Strongly disagree; 2 = Disagree; 3 = Somewhat disagree; 4 = Neither agree or disagree (Neutral); 5 = Somewhat agree; 6 = Agree; 7 = Strongly agree, below:

	Statements	SD	D	SWD	N	SWA	A	SA
01	Our enterprise is financed with personal money.	1	2	3	4	5	6	7
02	Our enterprise is financed with funds generated from retained earnings.	1	2	3	4	5	6	7
03	Our enterprise is financed with loans from friend and family.	1	2	3	4	5	6	7
04	Our enterprise has the collateral security required for external financing.	1	2	3	4	5	6	7
05	Our enterprise paid the interest rates charged on external financing.	1	2	3	4	5	6	7
06	Our enterprise source it finance from lease financing.	1	2	3	4	5	6	7
07	Our enterprise uses the trade credit facilities from suppliers to finance my business.	1	2	3	4	5	6	7
08	Our enterprise has sufficient financial information.	1	2	3	4	5	6	7

SECTION 5

Please circle (O) the number that accurately indicates your company's performance. Using the likert scale, where 1 = Strongly disagree; 2 = Disagree; 3 = Somewhat disagree; 4 = Neither agree or disagree (Neutral); 5 = Somewhat agree; 6 = Agree; 7 = Strongly agree, below:

	Statements	SD	D	SWD	N	SWA	A	SA
01	Compared to last three years, our product reaches a wider market.	1	2	3	4	5	6	7
02	Compared to last three years, our business increases product sales.	1	2	3	4	5	6	7
03	Compared to last three years, our business's profit has increased	1	2	3	4	5	6	7
04	Compared to last three years, the level of complaints from customers decreased.	1	2	3	4	5	6	7
05	Compared to last three years, the number of our employees has increased	1	2	3	4	5	6	7
06	Compared to last three years, the number of our customers has increase	1	2	3	4	5	6	7

Section 6: Demographic Information

Please tick (√) the most appropriate option that BEST describe your enterprise.

1. Gender
    1) Male
    2) Female

2. Highest education Qualification
    1) Primary Certificate
    2) S S C E
    3) ND/ NCE
    4) HND/ Degree
    5) PGD/ Master
    6) PhD

3. What is the main line of business in your enterprise?
    1) Agriculture, Hunting, Forestry and Fishing
    2) Manufacturing
    3) Wholesale and Retail Trade
    4) Hotels and Restaurants
    5) Other (Please specify)_____

4. Type of your business
    1) Sole proprietorship
    2) Partnership
    3) Limited liability
    4) Joint Venture

5. Your position in this organization:
    1) Owner
    2) Manager
    3) Owner/Manager

6. How many full time employees do you have?
    1) 10-49
    2) 50-199

7. Location of main business
    1) Kano
    2) Kaduna
    3) Sokoto

8. How many years has your enterprise been in existence?
    1) Less than 5 years ☐
    2) 5-10 years ☐
    3) 11- 15 years ☐
    4) More than 15years ☐

9. What is your company's estimated total assets excluding land and building?
    1) Minimum of N5m ☐
    2) Between N5m to less than N50m ☐
    3) Between N50 to less than N500m ☐
    4) Between N500m and above ☐

Appendix B: Common Method Variance

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.879	24.697	24.697	9.879	24.697	24.697	8.049	20.123	20.123
2	5.033	12.581	37.278	5.033	12.581	37.278	3.167	7.917	28.040
3	2.800	7.001	44.279	2.800	7.001	44.279	2.827	7.068	35.108
4	1.841	4.603	48.883	1.841	4.603	48.883	2.639	6.597	41.705
5	1.721	4.302	53.184	1.721	4.302	53.184	2.373	5.933	47.638
6	1.445	3.613	56.797	1.445	3.613	56.797	2.258	5.646	53.284
7	1.400	3.499	60.296	1.400	3.499	60.296	2.043	5.108	58.392
8	1.181	2.951	63.248	1.181	2.951	63.248	1.570	3.925	62.317
9	1.044	2.610	65.858	1.044	2.610	65.858	1.417	3.542	65.858
10	.934	2.334	68.193						
11	.904	2.259	70.452						
12	.791	1.976	72.428						
13	.735	1.838	74.266						
14	.725	1.811	76.078						
15	.692	1.730	77.807						
16	.637	1.593	79.400						
17	.621	1.552	80.953						
18	.569	1.423	82.376						
19	.537	1.343	83.719						
20	.495	1.239	84.957						
21	.488	1.220	86.178						
22	.464	1.160	87.338						
23	.432	1.081	88.419						
24	.411	1.027	89.446						
25	.389	.973	90.419						
26	.369	.923	91.342						
27	.364	.911	92.253						
28	.338	.846	93.099						
29	.309	.772	93.871						
30	.296	.740	94.611						
31	.281	.702	95.313						
32	.254	.636	95.949						
33	.243	.608	96.557						
34	.234	.585	97.142						
35	.228	.569	97.712						
36	.211	.527	98.238						
37	.195	.489	98.727						

Appendix B Cont..

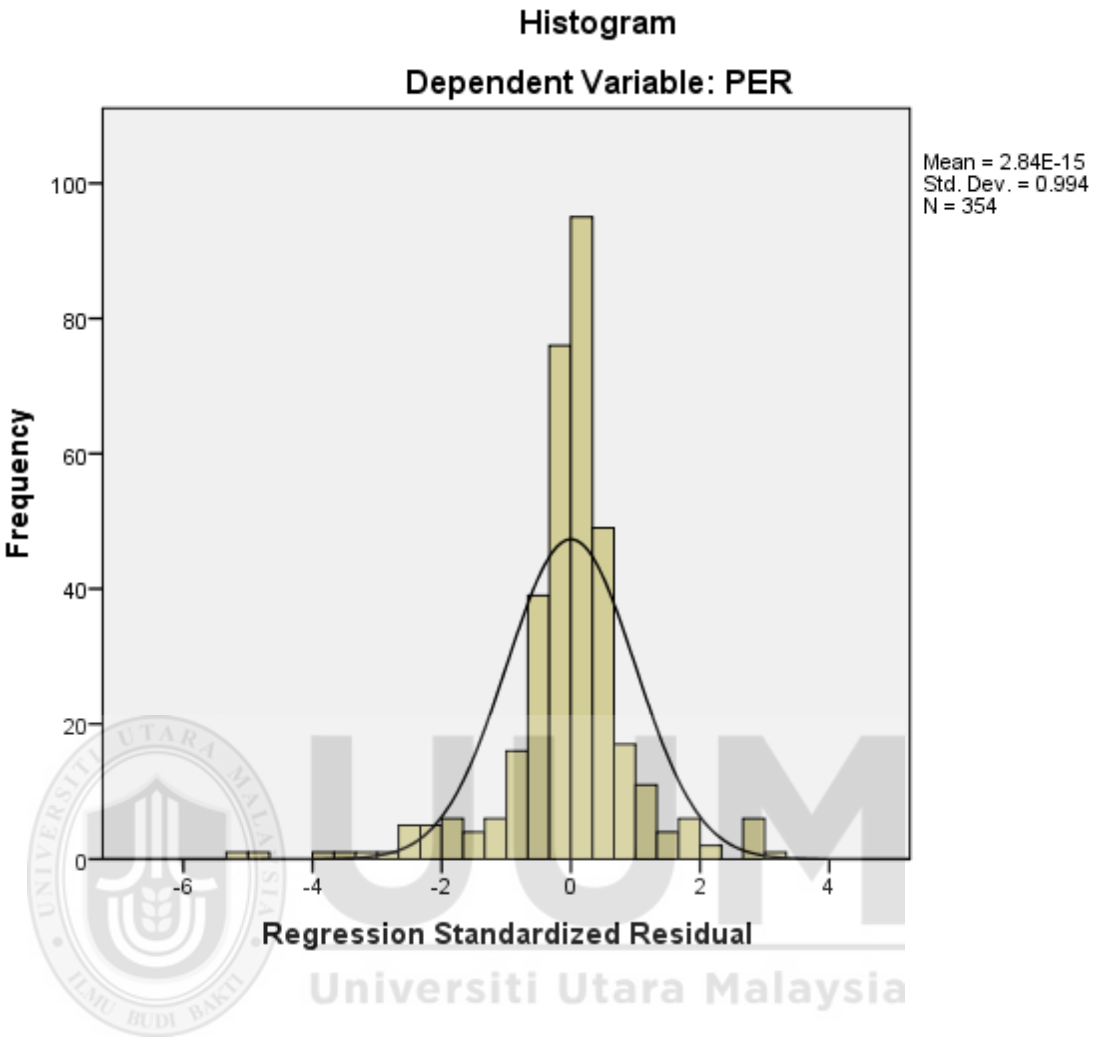
8	.193	.481	99.208						
39	.165	.413	99.621						
40	.152	.379	100.000						

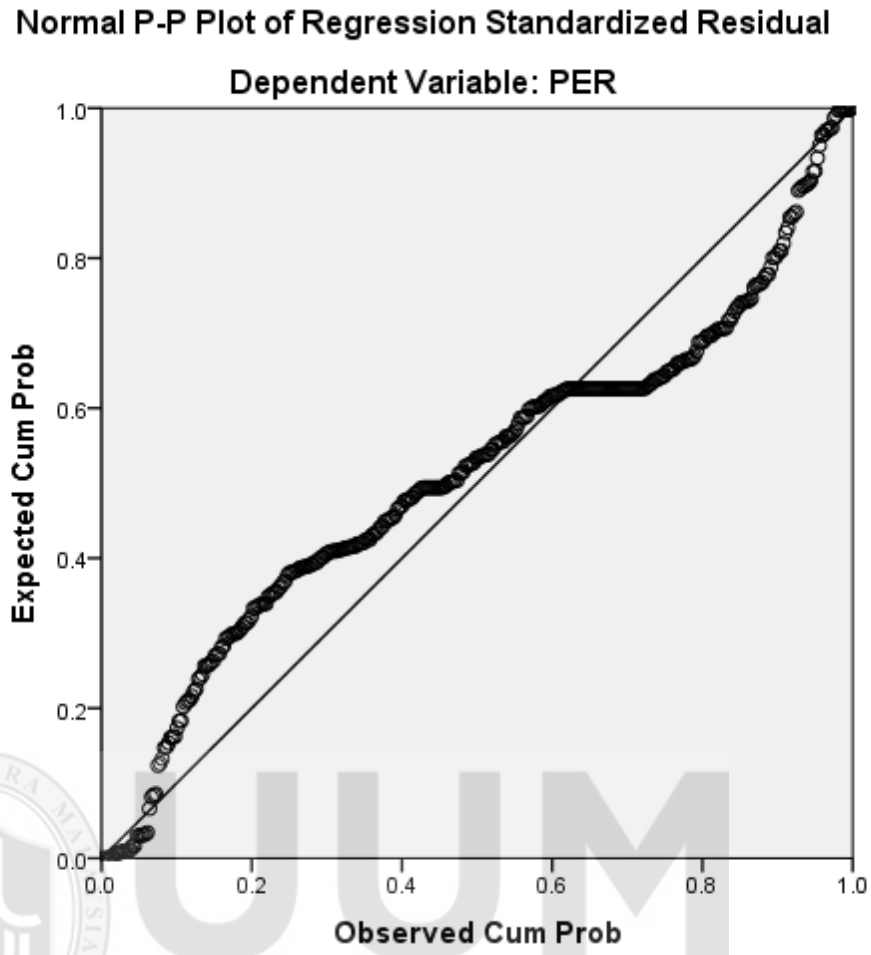
Extraction Method: Principal Component Analysis.

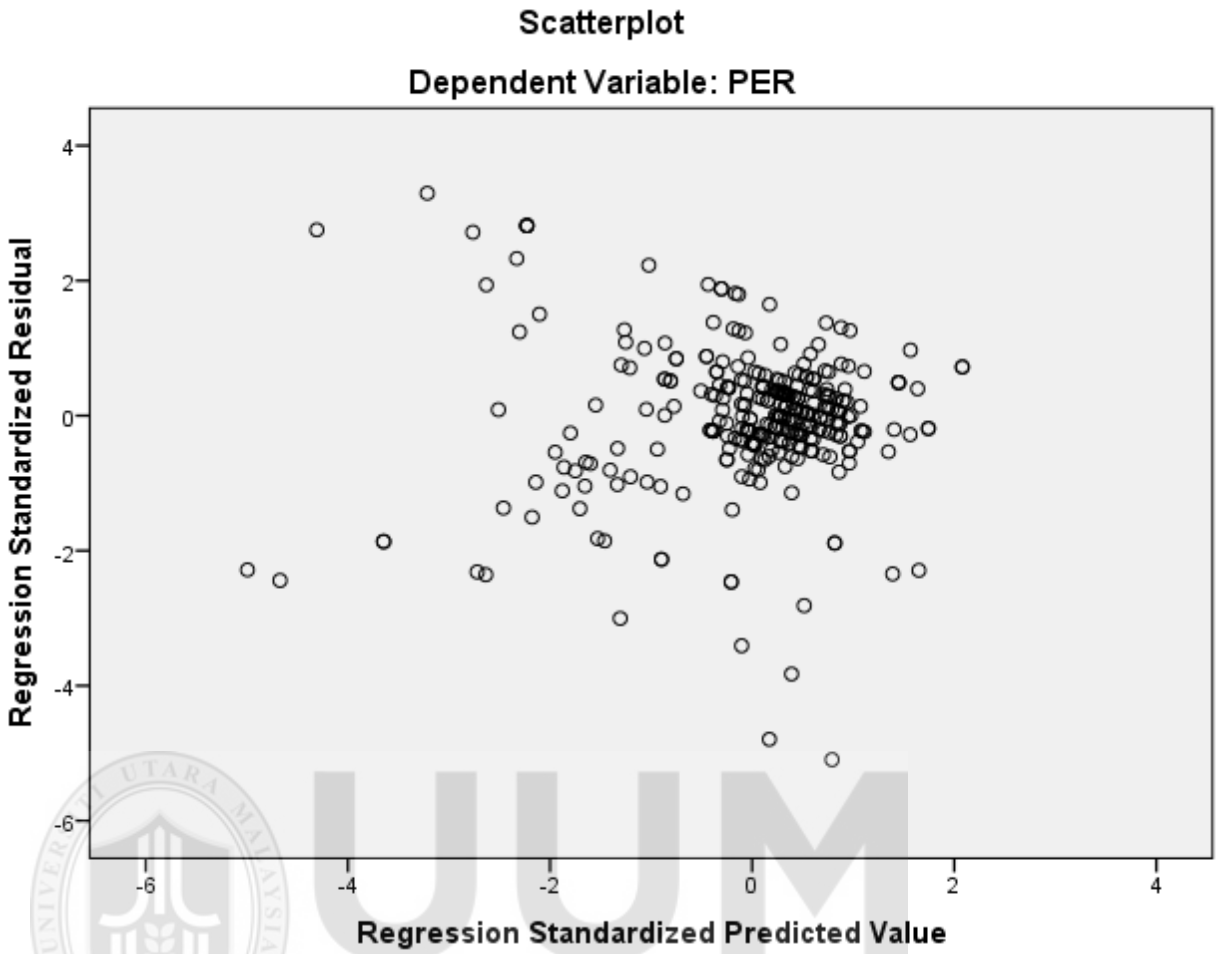
Appendix C: Missing Value

	Result Variable	N of Replaced Missing Values	Case Number of Non-Missing Values		N of Valid Cases	Creating Function
			First	Last		
1	VBP2	1	1	369	369	SMEAN(VBP2)
2	VBP3	1	1	369	369	SMEAN(VBP3)
3	VBP4_1	3	1	369	369	SMEAN(VBP4)
4	VBP5	3	1	369	369	SMEAN(VBP5)
5	VBP8	1	1	369	369	SMEAN(VBP8)
6	VBP10	2	1	369	369	SMEAN(VBP10)
7	VBP11	1	1	369	369	SMEAN(VBP11)
8	VBP12	3	1	369	369	SMEAN(VBP12)
9	VBP13	3	1	369	369	SMEAN(VBP13)
10	VBP15	2	1	369	369	SMEAN(VBP15)
11	EAW5	4	1	369	369	SMEAN(EAW5)
12	ESE1	1	1	369	369	SMEAN(ESE1)
13	ESE4	5	1	369	369	SMEAN(ESE4)
14	ESE5	4	1	369	369	SMEAN(ESE5)
15	AF1	1	1	369	369	SMEAN(AF1)
16	AF3	2	1	369	369	SMEAN(AF3)
17	AF4	1	1	369	369	SMEAN(AF4)
18	AF5	3	1	369	369	SMEAN(AF5)
19	AF6	4	1	369	369	SMEAN(AF6)
20	AF7	5	1	369	369	SMEAN(AF7)
21	PER1	1	1	369	369	SMEAN(PER1)
22	PER2	1	1	369	369	SMEAN(PER2)
23	PER3	4	1	369	369	SMEAN(PER3)
24	PER6	1	1	369	369	SMEAN(PER6)

Appendix D: Normality Test







Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	**Skewness**		**Kurtosis**	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
VBP	354	1.00	7.00	4.9151	1.54874	-1.146	.130	.166	.259
EAW	354	1.00	7.00	5.2946	1.18672	-1.729	.130	3.091	.259
ESE	354	1.00	7.00	5.3108	1.11038	-1.598	.130	2.907	.259
AF	354	1.00	7.00	5.1660	1.06569	-1.322	.130	3.416	.259
PER	354	1.00	7.00	5.3875	1.03068	-1.803	.130	4.539	.259
Valid N (listwise)	354								

Appendix E: Number of small and medium enterprises in Nigeria by state

	Small		Medium		
	Number	Percentage	Number	Percentage	TOTAL
ABIA	1,769	97.78	40	2	1,809
AKWA-IBOM	898	82	195	18	1,092
ANAMBRA	1,620	93	117	7	1,737
BAUCHI	2,039	99	27	1	2,066
BAYELSA	354	83	72	17	426
BENUE	1,146	98	22	2	1,167
CROSS RIVER	1,126	87	168	13	1,294
DELTA	1,444	100	-	-	1,444
EBONYI	1,206	100	4	0	1,210
EDO	1,879	94	118	6	1,997
EKITI	903	88	126	12	1,030
ENUGU	812	89	99	11	911
GOMBE	1,043	94	65	6	1,108
IMO	1,259	90	135	10	1,394
JIGAWA	1,022	93	75	7	1,097
KADUNA	2,712	97	170	3	2,882
KANO	7,790	97	496	3	8,286
KATSINA	1,256	93	99	7	1,355
KEBBI	898	91	91	9	989
KOGI	827	98	17	2	844
KWARA	164	73	62	27	226
LAGOS	11,044	96	619	4	11,663
NASARAWA	1,098	98	22	2	1,120
NIGER	1,258	93	100	7	1,357
OGUN	1,690	94	104	6	1,794
ONDO	1,805	90	194	10	1,999
OSUN	2,247	99	25	1	2,273
OYO	7,468	95	519	5	7,987
PLATEAU	2,070	95	110	5	2,180
RIVERS	2,981	99	41	1	3,022
SOKOTO	631	75	210	25	841
TARABA	891	93	69	7	960
ZAMFARA	577	95	16	5	593
FCT	2,244	83	446	17	2,690
Total	68,168	94	4,670	6	72,839