

**MODERATING AND MEDIATING ROLES OF HUMAN
CAPITAL AND COMPETITIVE ADVANTAGE ON
ENTREPRENEURIAL ORIENTATION, SOCIAL NETWORK,
AND PERFORMANCE OF SMEs IN NIGERIA.**

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**DOCTOR OF PHILOSOPHY
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**MODERATING AND MEDIATING ROLES OF HUMAN CAPITAL AND
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SOCIAL NETWORK AND PERFORMANCE OF SMEs IN NIGERIA.**

By

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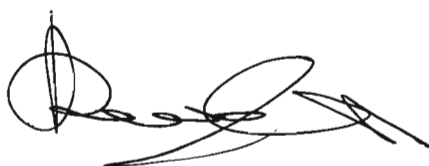
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ABSTRACT

The main objective of this study is to examine the mediating role of competitive advantage (CA) and the moderating role of human capital (HC) on the relationships between entrepreneurial orientation (EO), social network (SN), and performance of small and medium enterprises (SMEs) in Nigeria. Data were collected from the SMEs operating in North Western Nigeria using a quantitative survey design. The study adopted a systematic random sampling, selected respondents from the population of 8,286 SMEs in Kano State Nigeria, and questionnaires distributed through the postal method. A total of 283 usable questionnaires were returned, giving a response rate of 38.45%. Partial Least Squares-Structural Equation Modeling (PLS-SEM) was used to test the study hypotheses. The findings revealed that EO, SN, HC and CA are important strategic orientations for the performance of SMEs in Nigeria. The findings also revealed that SME performance depends on the degree of EO, HC and SN of the firm. It further shows that EO, SN and HC positively influence performance, and human capital moderates the relationship between EO and firm performance, but the findings indicate that HC does not moderate the relationship between SN and SME performance. However, competitive advantage was found to mediate the relationships between EO, SN, and performance. The findings of this study provide important insights to owner/managers of SMEs, policy makers and researchers to further understand the effects of EO, SN, HC and CA on SME performance. SMEs should also be encouraged to improve their EO, SN and HC which may increase their performances. Finally, the study implications, limitations as well suggestions for future research are discussed.

Keywords: Small and medium enterprises (SMEs), entrepreneurial orientation, social network, competitive advantage, human capital.



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ABSTRAK

Objektif utama kajian ini ialah untuk meneliti peranan pengantaraan kelebihan persaingan (KP) dan peranan penyederhanaan modal insan (MI) atas hubungan-hubungan di antara orientasi keusahawanan (OK), jaringan sosial (JS) dengan prestasi enterprais kecil dan sederhana (EKS) di Nigeria. Data dipungut daripada EKS yang beroperasi di Barat Utara Nigeria menggunakan rekabentuk tinjauan kuantitatif. Kajian ini mengguna pakai persampelan rawak bersistematik, memilih responden daripada 8,286 populasi EKS di Negeri Kano, Nigeria, dan mengagihkan soal selidik melalui kaedah pos. Sejumlah 283 soal selidik bolehguna dikembalikan, menjadikan kadar respon sebanyak 38.45%. PLS SEM telah digunakan untuk menguji hipotesis-hipotesis kajian. Dapatan kajian menunjukkan bahawa OK, JS, MI, dan KP adalah orientasi strategik yang penting untuk prestasi EKS di Nigeria. Dapatan juga menunjukkan bahawa OK, JS dan MI mempunyai pengaruh positif ke atas prestasi, tetapi MI tidak mempunyai pengaruh signifikan atas hubungan di antara JI dan prestasi EKS. Bagaimanapun KP didapati mengantara hubungan-hubungan antara OK, JS, MI dan prestasi. Dapatan daripada kajian ini menyediakan penemuan penting kepada pengurus/pemunya EKS, pembuat dasar dan penyelidik-penyelidik untuk memahami lebih lanjut kesan OK, JI, MI dan KP ke atas prestasi EKS. EKS juga disarankan supaya meningkatkan lagi OK, JI dan MI yang mungkin boleh meningkat prestasi. Akhir sekali implikasi kajian, limitasi serta cadangan kajian masa hadapan dibincangkan.

Kata kunci: Enterprais kecil dan sederhana (EKS), orientasi keusahawanan, jaringan sosial, kelebihan persaingan, modal insan.



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LIST OF ABBREVIATIONS

AVE	Average Variance Extracted
BF	Business Performance
CBN	Central Bank of Nigeria
CR	Composite Reliability
F ²	Effect Size
FP	Firm Performance
GDP	Gross Domestic Product
GoF	Goodness-of-Fit
HC	Human capital
NBS	National Bureau of Statistics
NPC	National Population Commission
NPC	National Planning Commission
OECD	Organizations for Economic Cooperation and Development
PLS	Partial Least Squares
Q ²	Construct crossvalidated Redundancy
R ²	R-squared values
RBV	Resource based View

RDT:	Resource dependency theory
SEM	Structural Equation Modelling
SmartPLS	SmartPLS Statistical Package
SMEDAN	Small and Medium Enterprises Development Agency of Nigeria
SMEs	Small and Medium Enterprises
SN	Social network
SNT:	Social network theory
SPSS	Statistical Package for the Social Science
SPSS	Statistical Package for Social Science
UNIDO	United Nation Industrial Development organization
US	United State of America
UUM	Universiti Utara Malaysia
VAF	Variance Accounted For
VIF	Variance Inflation Factor

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The performance of small and medium enterprises (SMEs) is creating a vast amount of discussion among practitioners, researchers, educators, and policy makers. The characteristics and determinants of the performance of SMEs have been and always will be a focus of debate and interest (McKelvie & Wiklund 2010). Due to the unique constraints and limitations faced by SMEs such as having a limited number of employees, insufficient financial resources, a lack of educational background and experience and a lack of managerial expertise, among other limiting factors (Samad 2007; Saleh & Ndubisi 2006; Abu Bakar *et al.*, 2006; Mohd Aris 2006), efforts are continuously being made to understand how the performance of SMEs could be developed and further enhanced. These efforts are important since this sector of the economy is recognized as one of the crucial engines of growth for a country's economy (Abu Kassim & Sulaiman 2011).

SMEs are extensively recognized as crucial mechanisms of national development in technologically advanced and unindustrialized economies (Aigboduwa & Oisamoje, 2013; Osalor, 2012; Lai & Arifin, 2011; Abrie & Doussy, 2006; Oyekanmi, 2003). They also serve as a backbone for economic revival of many countries in Sub-Saharan Africa (SSA) (Babajide, 2011). SME Sector is featured by several micro and other small businesses and occupied a large number of labor force in an economy (Abiodun, 2003)

it serves as a tool for generating employment (Mahmood & Hanafi, 2013). Most nations all over the world employed SMEs to generate employment and poverty reduction as well as to improve the growth domestic product. For example, UK business population estimate in 2013, reported from small business statistics UK in 2014 discovered that, SMEs have a nearly 99.3 percent of the entire UK private sector and has employment turnover of almost 47.8percent. The report further clarified that, this sector employed almost 13.4 million individuals with the £1,600 billion turnover.

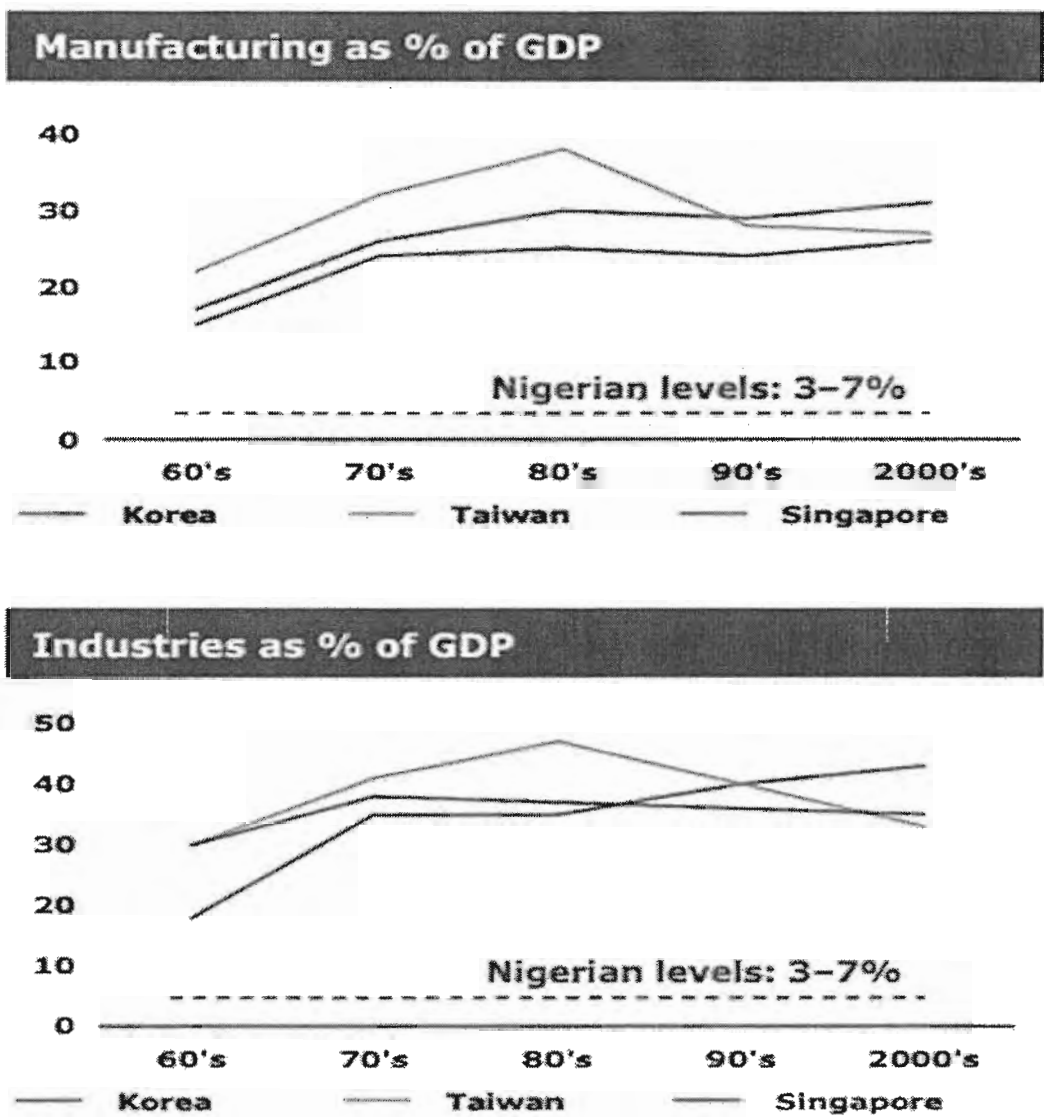
Similarly, Anyanwu (2001) argued that, in emerging economies, such as Singapore and Malaysia, SMEs contribute enormously toward their economies, for example, SMEs in manufacturing enterprises are almost 93.8 percent, employs 38.9 percent workforce and donate 27.3 percent of the total output in Malaysia manufacturing industry (SMIDEC 2002; Saleh & Ndubisi, 2006). In addition, in Japan SMEs donates almost 70 percent to their nation exports. So also, the SMEs' contribution toward GDP in Japan and Germany is about 53%, UK about 51%, Korea approximately 49%. While, Singapore and Thailand recorded SMEs contributions to GDP at 49% and 38% respectively (NSDC, 2010; Nadada 2013) Even though SMEs are recognized as a principal agent of growth in many countries (Panitchpakdi 2006; Luetkenhorst 2004; Hilmi, Ramayah, Mustapha & Pawanchik, 2010; Hanafi & Mahmood; 2013) their contribution to the Nigerian economy is still comparatively small compared with the contributions of SMEs in industrialized countries as well as other developed and developing countries (Eniola, 2014; Oyeyinka, 2012;

Agwu & Emeti, 2014; Aliyu & Bello, 2013). Ibru (2013) stated that the failure of SMEs is issue of genuine concern to Nigerians and other interested parties.

In previous years, SMEs accounted for the majority of businesses in Nigeria and have contributed about 70% to employment (Adebusuyi, 1997). However, in 2001, their contribution to employment dropped to about 58percent (Nnanna, 2002). Report on SMEs across the country stated that the contribution of SMEs to GDP and employment is not encouraging (Ndumanya, 2013; SMEDAN, 2012). The death rate of SMEs in Nigeria have risen to about 80 percent before their fifth year, which was 15% in 2002 (SMEDAN, 2012). SMEs owners-managers encounter several problems in operating their businesses. Consequently, appropriate strategic activities are needed to ensure survival of the firms (Aktan & Bulut, 2008)

However, Bello (2013) who is the executive secretary, Nigerian Investment Promotion Commission (NIPC) and Gbandi and Amissah, (2014) asserted that small and medium enterprise sector only contributed almost one percent to the nation's Gross Domestic Production (GDP). They added that the one percent contribution to GDP was very low when compared to the 40 percent contribution by SMEs in some Asian countries and 50 percent in the Europe and US, despite the fact that SMEs dominated nearly 96 percent of business activities in general and 90 percent of industrial sector in specific, and provide 70 to 80 percent of job opportunities (Irefin, Abdulazeez & Tijjani, 2012; SMEDAN, 2014). The Federal Government believed that the weak nature of SMEs sector is currently hindering the inflow of foreign direct investment into the country. Furthermore, according

to the policy guideline and program of the federal republic of Nigeria (2012) the total output from the manufacturing as evidenced from the manufacturers association of Nigeria has continued to decline.



Source: Oyelaran- Oyeyinka (2006)

Figure 1.1

Manufacturing and Industry percentage contribution to the GDP

From the figure above, is shows a manufacturing GDP percentage in Nigeria has averaged 3–7% over the last few decades. It also shows that aggressive competition for the Nigerian manufacturing sector come mainly from Asia manufacturing between Asian competitors account for 30-40% of GDP, studies show that Majority of exporters are experiencing decreasing levels of exporting due to competitive pressures from Asian counterparts Oyelaran-Oyeyinka, (2008).

Table 1.1
Enterprise Creation and Contribution to Employment

Index	UK	Belgium	Ireland	Nigeria
No. of SMEs (%)	99.6	99.8	99.5	87
No. of Persons Employed (%)	54	66.6	66.5	10
Value Added	51.6	57.4	55.6	NA

Source: European Commission Enterprise and Industry SBA fact sheet, in Nigeria Vision 2020 NTWG on SMEs (2009).

From the table 1. Above, this shows that Europe has high share in total employment and number of SMEs. Thus, they constitute the mainstay of the economies in Europe. Although SMEs sector in Nigeria share is high, their share of employment is very low at 10 percent compare to that of Europe.

Table 1.2:
Global Competitiveness (Ranking of 134 Countries)

Index	US	UK	India	China	Nigeria
Government Institutions (%)	29	25	53	56	106
Quality of Overall Infrastructure (%)	7	18	72	47	120
Health and Primary Education	34	19	100	50	126
Goods Market Efficiency	8	19	47	51	56
Technological Readiness	11	8	69	77	94
Innovation	1	17	32	28	65
Financial Market Sophistication	9	5	34	109	54

Source: World Economic Forum (2009).

The selected indicators from the Table 1 above shows that SME sector performance has been very poor compared to other driven economies. It is clear from the table that,

between 134 countries, SME sector in Nigeria has been worse off with 126th position in the health and primary education, 120th position in quality of overall infrastructure, 106th position in government institutions and 94th position in technological readiness.

Since 1970 numerous Nigerian governments have introduced several programs, policies institutions and schemes for the purpose of promoting SMEs, which comprises Small Scale Industries Credit Guarantee Scheme (1971); Bank of Industry (BOI); Rural Banking Scheme (1977); Peoples Bank (1989); Nigerian Industrial Development Bank (NIDB); Small and Medium Enterprises Equity Investment Scheme (SMEEIS); Small and Medium Enterprises Development Agency of Nigeria (SMEDAN); Industrial Development Centre (IDC); Microfinance Bank Institutions (MFBIs) (Babied, 2011,2012). Similarly, many Nigerian Governments injected vast amount of money in the above stated schemes and programs with intention to offer accessible and inexpensive financial backing as well as to boost SMEs growth. For example, the sum of N42 billion was allocated under Small and Medium Enterprises Equity Investment Scheme (SMEEIS) in December, 2009, N200 billion through Small and Medium Scale Enterprises Guarantee Scheme (SMECGS) N200 billion under SME Restructuring/Refinancing Fund and N2 billion under National Economic Reconstruction Fund (NERFUND) (NBS & SMEDAN, 2010). Also, the sum of N444 Billion (\$2.48 Billion USD) has been injected through the above-mentioned schemes in 2013 and 2014 with the aim of providing the needed, available and inexpensive funding as well as to stimulate the growth of SMEs (SMEDAN, 2014). Despite all these programs and policies by government Majority of Nigeria SMEs failed

in their first to five years of presence, a smaller proportion goes into another sixth to tenth year whereas only 5 to 10 percent subsist, prosper and also grow to maturity (Aremu, & Adeyemi, 2011; Mwobobia 2012a; Mwobobia 2012b).

Furthermore, in Nigeria, SMEs encountered with many challenges such as high mortality rate, lack of information, multiple taxation, poor entrepreneurial efficacy, lack of manpower and inability of entrepreneurs to access the required fund (SMEDAN, 2012; Oluboba, 2003; Mwobobia, 2012). It has been indicated in the previous statistics that three out of five SME failed within their infancy period in Nigeria, a small percentage goes into 6th and 10th year while only about five to ten percent survive thrive and grow to maturity despite the fact that SMEs sector were given attention by the government through establishment of many programs (Aremu, & Adeyemi, 2011; Mwobobia 2012a; Mwobobia 2012b; Harash, Al-Timimi & Alsaadi, 2014; SMEDAN, 2012; Bello, 2014; Harash, Al-Timimi & Alsaadi, 2014). Therefore, survival and performance of SMEs in Nigeria is an issue of a great concern and it has proved that there is an increase in enterprise death rate and poor contribution to GDP. For instance, about 80 percent of SMEs perished at early stage of their lifecycle (SMEDAN, 2012; Bello, 2014). Thus, there is a need to investigate further the issues of performance among SMEs in Nigeria.

Many factors were identified as the major challenges confronting SME performance which include: social network, innovation and entrepreneurial orientation, lack of information, multiple taxation, poor entrepreneurial efficacy, lack of manpower and inability of entrepreneurs to access the required fund (SMEDAN, 2012; Oluboba, 2003;

Mwobobia, 2012; Colvin, Green & Slevin, 2006; Lucky, & Minai, 2011; Witt, 2004; Bueno & Ordonez, 2004).

1.2 Problem Statement

Studies on entrepreneurship acknowledge the relevance of individual in new business enterprise success (Shane & Venkataraman, 2000). Therefore, the belief of entrepreneurs in their capabilities for entrepreneurship can help and in other way harm their efforts to create and grow their business enterprises. Meanwhile, absence of such capabilities serve as the major factors accountable for failure of voluminous number of SMEs. The importance of entrepreneurial ability has tremendously increased throughout the past few years due to the premeditated role played by entrepreneurs in efficacious operation of a venture. Entrepreneurs' competency, self-efficacy and orientation to run their business is behind every enterprise performance successfully even in a dynamic business environment (Oyeku, 2014).

Small and medium enterprises (SMEs) have recognized as crucial components of national economic growth and development in both developed and developing economies (Aigboduwa & Oisamoje, 2013; Abrie & Doussy, 2006; Lai & Arifin, 2011; Oyekanmi, 2003; Osalor, 2012). SMEs' contribute to GDP of many nations' economy, for instance, 53% in Japan and Germany, 51% in UK, 45% in India 50% in Poland 45% in South Africa and approximately 49% in Korea (NSDC, 2010; Nadada, 2013). SME's are also use as a tool to reduce poverty, create employment and major driver of economic growth through

wealth creation and serves a major variable for economic private sector, development and partnership (Radda, 2016; Mahmood & Hanafi, 2013; Abiodun, 2003). However, the contributions of SMES' to the Nigerian economy is still comparatively small compared with the industrialized countries as well as other developing countries (Oyeyinka, 2012; Agwu & Emeti, 2014; Bello, 2013). SMES' sector only contributed about one percent to the country's GDP. Despite, the fact that SMEs constituted 96 percent of Nigerian businesses in general and 90 percent of the manufacturing sector (Oyelaran-Oyeyinka, 2012; Bello, 2014). Even though SME's were given attention by the government through establishment of programs, 3 out of 5 SME fail within their infancy period in Nigeria, a small percentage goes into 6th and 10th year while only about 5 to 10percent survive, thrive and grow to maturity (Aremu, & Adeyemi, 2011; Mwobobia 2012a; Mwobobia 2012b; Harash, Al-Timimi & Alsaadi, 2014; SMEDAN, 2012; Bello, 2014). Therefore, Survival and performance of SMEs in Nigeria is an issue of a great concern, as there is an increase in the rate, which SMEs fails, and poor contribution to GDP. This motivated the conducting of an empirical investigation on Nigeria SMEs performance in this regard. Many factors were identified as the major challenges confronting SME performance in Nigeria which include: social network, innovation and entrepreneurial orientation, lack of information, multiple taxation, poor entrepreneurial efficacy, lack of manpower and inability of entrepreneurs to access the required fund (SMEDAN, 2012; Oluboba, 2003; Mwobobia, 2012; Colvin, Green & Slevin, 2006; Lucky, & Minai, 2011; Witt, 2004; Bueno & Ordonez, 2004).

Previous studies have identified several factors that lead to the SMEs performance. Some of the factors include social network, innovation and entrepreneurial orientation (Colvin, Green & Slevin, 2006; Lucky, & Minai, 2011; Witt, 2004; Bueno & Ordonez, 2004). The focus of this research is to study the impact on performance of SMEs in Nigeria from the perspectives of Entrepreneurial Orientation (EO), Social Network (SN), and Human Capital (HC).

Entrepreneurial ventures need to focus on developing EO, which serves as a strategic orientation that can set them apart from their competitors. EO is becoming a popular subject in entrepreneurship literature (Wiklund 1999; Rauch *et al.*, 2009). Studies in the field of entrepreneurship have indicated that the better the EO of an SME, the better the performance of the firm (Swierczek & Thanh Ha 2003a; Rauch *et al.*, 2009). EO is viewed as strategic orientation of the firm (Covin & Slevin 1989; Lumpkin & Dess 1996) and a source of competitive advantage (Lumpkin & Dess 1996). With relatively limited resources and capabilities, EO is a survival kit and a key for outperforming SME competitors in global markets (Knight 2000). Therefore, there is need of having sound entrepreneurial orientation in all SME's firms for better performance (Idar & Mahmood, 2011). Abdul Razak (2011) wrote that EO is critical in directing strategic entrepreneurial activities and an important means to achieving better productivity. Thus, the ability of SMEs in Nigeria to possess and exercise EO is central for entrepreneurial success. However, due to mixed results in the research, of the role of entrepreneurship and the impacts of EO on SMEs in developing countries are not well understood (Fairoz *et al.*,

2010). Ogunsiji & Kayode (2010) has attributed the poor performance of SME's in Nigeria to poor entrepreneurial orientation, and emphasizes it as a major challenge facing entrepreneurs in the country. According to Idar and Mahmood (2011), there is need of having sound entrepreneurial orientation in all SME's firms for better performance.

There are numerous studies conducted toward Entrepreneurial orientation and firm performance, but there is mixed of findings. Some studies that reported a positive and significance relationship include Mehrad, Abdolrahim and Hamidreza, (2011); Sue, Xie and Li, (2011); Faizoz, Hirobumi, and Tanaka, (2010); Smart and Conant, (2011); Miller and Bromiley, (1990) while Su, Xie and Li, (2011); Alegre and Chiva, 2009; Frank, Kessler and Fink, (2010); Faizoz, Hirobumi, and Tanaka, (2010); Filser and Eggers, (2014); Baker and Sinkula, 2009; Slater and Narver, 2000; Stam and Elfring, 2008 found mis-match between EO and Performance in organization In other studies, EO is found to have a U shaped relationship with firm performance (Kreiser, Marino, Kuratko, & Weaver, 2013; Su *et al.*, 2011; Tang, Tang, Marino, Zhang, & Li, 2008; Tang & Tang, 2012). Similarly, majority of studies of EO to performance were conducted in Europe and Latin America (Wales, Gupta & Mousa 2011; Shehu, & Mahmood, 2014). Wales *et al.*, (2011) suggested the need for further studies of EO in the other countries with different socio-culture with US.

On the other hand, social network is becoming a popular subject in entrepreneurship literature (Watson, 2012). Studies in the field of entrepreneurship have found networking as an important and influential tool by which entrepreneurs use a wide variety of contacts

to help them achieve their business and professional objectives and it gives them greater access to information, resources, new clients and people with similar business interests and contribute to the creation, expansion and growth of small businesses (Shaw & Conway, 2000; Barnir & Smith, 2002; Hoang & Antoncic, 2003; Westerlund & Svahn, 2008; Partanen, *et al.* 2008; Ascigil & Magner, 2009). Empirical literature clearly shows that resources that entrepreneur's access or social capital are through personal networks or social capital (Adler & Kwon, 2002) mobilize resources (Batjargal, 2003) allows entrepreneurs to recognize opportunities (Bhagavatula *et al.*, 2010) and build legitimacy for their organizations (Elfring & Hulsink, 2003). However, in spite of this interest and research, little agreement exists regarding precisely what is well known about the link between social network and performance in the small organization's context (Maurer & Ebers, 2006; Stuart & Sorensen, 2007; Watson, 2011). Ambiguous debates, fueled by unclear study results, have raised about social network issues. This study views from the perception that social network play a significant role in entrepreneurial attainment (Birley, 1985).

There is dearth of research reviewing social network in established businesses. As the majority of research are concentrated on the entrepreneurs social networks at the start-up phase of the firm, therefore, it is useful to study the entrepreneur's social network for established organization for theoretical development rather than intentionally on new firm (Bruderl & Preisendorfer, 1998; Hoang & Antoncic, 2003; Watson, 2007). Similarly, Empirical evidence demonstrates that there is scarce of research investigating the social

network (SN) to SMEs' Performance (Watson, 2012, Bruderl & Preisendorfer, 1998; Hoang & Antoncic, 2003; Watson, 2007).

Empirical documents reveal that social network impact performance by giving the businessperson an opportunity to exploit resources (Kristiansen, 2004; Witt, 2004; Watson, 2007). Empirical studies on the association between social network and the performance of Business organizations revealed a positive relationship (Watson, 2007; Kristiansen, 2004) others shown otherwise (Littunen, 2000; Havnes and Senneseth, 2001; Ahmad, 2005; Rose, Kumar, & Yen, 2006; Watson 2007). Base on the previous contradicted results, the link between social network and organization performance is inadequate. Hence, there is a need for further study. Both factors are needed to improve and sustain organizational performance and to allow entrepreneurs (the owners and managers of SMEs in Nigeria) to better equip themselves to be more competitive in the future.

However, considering the inconsistencies in the relationship between EO, SN and SME's performance will create a gap in the relevant theories to support the empirical evidences that need to be addressed. In addition, Sekaran and Bougie (2013) suggested that the same variable might be used as independent, mediating, or moderating variable depending on how it is conceptualize in the theoretical model. Therefore, to give a comprehensive view of SME's performance because of entrepreneurial orientation and social network additional variable were considered. Thus, this study employs human capital as a moderating variable in the association between social network entrepreneurial orientation

and firm performance. In recent time, some researchers have argued that there is likely a moderating link between entrepreneurial orientation, social network, and organization performance (Batjargal, 2007; Cantner & Struetzer, 2010; Rauc, *et al.* 2009). Therefore, a moderating variable is introduced to see whether the relationship changes strengthen/weaken with the presence of the moderator. Baron and Kenny (1986) suggested the introduction of moderating variables, where there are inconsistent and inconclusive findings. In addition, some researchers have argued that there is likely a moderating link between EO, SN and organization performance (Batjargal, 2007; Cantner & Struetzer, 2010; Rauc, *et al.* 2009). Herath and Mahmood (2013); Shehu and Mahmood (2014) suggestion of strategic orientation to performance relationship with the moderating and mediating variables. As supported by Suliyanto and Rehab (2012) who suggested the inclusion of external environment factor as moderating variable in firm performance study. In addition, Awang, *et al.*, (2009) recommend the inclusion of external environment in entrepreneurship future studies. Thus, Hereath and Mahmood (2013) suggest moderator and mediator inclusion in strategic orientations to performance relationship.

Researcher's shows that entrepreneurial orientation and social network create competitive advantage for the firm. Business relationships and networks are perceived as sources of competitive advantage (D. Ford *et al.*, 2003; Gulati 2007; Mesquita *et al.*, 2008; Nahapiet & Ghoshal, 1997). The literature discussed different performance outcomes that may be appropriated by the focal company through actions relating to different business partners: company innovativeness (Ahuja 2000; Capaldo 2007; Tsai 2001) organizational

entrepreneurship (Baum *et al.*, 2000; Shan *et al.*, 1994) improved relationship quality (De Wulf *et al.*, 2001; C. Lee *et al.*, 2001a; Woo and Ennew 2004) improved relationships portfolio value (Olsen & Ellram 1997; Zolkiewski & Turnbull 2002; Storbacka & Nenonen 2009; Ritter & Geersbro 2010) and, company performance (Czakon 2009; Tsai 2001; Walter *et al.*, 2006). Such performance outcomes directly or indirectly represent important factors of competitive advantage. In addition, Watson (2011) supported by various empirical studies, example, Florin, Lubatkin, and Schulze, (2003:374) found that using social networks could provide a venture with a “durable source of competitive advantage”. Also, Florin, *et al* (2003) and Brüderl and Preisendörfer (1998) found that network support increased the probability of survival and growth for new businesses. Similarly, competitive advantage is found to influence Business performance, (Mahmood, & Norshafizah, 2013; Ramaswami et al., 2004; Tovstiga & Tulugurova, 2009).

Mahmood and Hanafi, (2013) found that Competitive advantage could serve as mechanism through which entrepreneurial orientation influences firm performance in Malaysia. They also argued that EO is a resource and capability that give a company a lasting competitive advantage and superior performance. Similarly, some literatures further affirmed that competitive advantage of the firm and performance are mostly influenced by the entrepreneurial behavior of the firm (Zahra & Covin, 1995; Wiklund & Shepherd, 2003). These suggest therefore, that Competitive advantage could be a potential mediator between Entrepreneurial orientation, Social network and Business performance. furthermore, There is still inadequate empirical research investigating the relationship

between entrepreneurial orientation and firm performance with mediating effect of competitive advantage (Mahmood & Hanafi, 2013). Awang, *et al.*, (2009) recommend the inclusion of external environment in entrepreneurship future studies. Thus, Hereath and Mahmood (2013) suggest moderator and mediator inclusion in strategic orientations to performance relationship.

Competitive advantage was employed in this study as a mediator in the relationship between entrepreneurial orientation, social network and firm performance considering previous positions and in line with Baron and Kenny (1986) and Hayes (2009) argument for introducing a mediator variable. Based on the literature consulted none of the previous studies integrates entrepreneurial orientation, social network, with both moderating and mediating variables of human capital and competitive advantage on the performance of SMEs into a single model. Therefore, there is need for to have a more comprehensive study with a very sound approach that will look into performance of SMEs with the moderating and mediating effects of human capital and competitive advantage respectively. Nevertheless, numerous studies have determined that SMEs performance depends mainly on competitive advantage (Tovstiga & Tulugurova, 2009; Jeen, Hishamuddin & Gerald 2010). Combination of these important variables are likely to improve SMEs' performance. In view of these arguments, some studies have advocated that strategic orientations studies should consider some other factors that can explain the mechanism through which the effect can be better explained (Al-swidi & Al-hosam, 2012; Herath & Mahmood, 2013; Liu & Fu, 2011; Polat & Mutlu, 2012). Hence, in this study,

competitive advantage is assumed a mechanism through which EO and SN are able to influence firm performance.

The present study combines both human capital as a moderator and competitive advantage as mediator into a single model because; studies that combine both moderation and mediation are widespread in psychology research (Hayes, 2015). Similarly, Muller, Judd, and Yzerbyt, (2005) elucidate that the two processes of mediation and moderation could be combined in explanatory ways; such that mediation is moderated or moderation is mediated. Hayes, (2015) argued that moderation and mediation can be integrated in one model and describe it as index of moderated mediation. He further explains that the test can be used for models that integrate moderation and mediation in which the relationship between the moderator and indirect effects is estimated as linear which also include other models as describe by Edwards and Lambert (2007) and Preacher, Rucker, and Hayes (2007) as well as models extension to processes comprising multiple mediators operating in serial or parallel.

1.3 Research Question

Based on the above problem statement, the following research questions were developed:

1. Is there significant relationship between entrepreneurial orientation and firm performance?
2. Is there significant relationship between social network and firm performance?

3. Is there significant relationship between human capital and firm performance?
4. Does human capital moderate the relationship between entrepreneurial orientation and firm performance?
5. Does human capital moderate the relationship between social network and firm performance?
6. Does competitive advantage mediate the relationship between entrepreneurial orientation and firm performance?
7. Does competitive advantage mediate the relationship between social network and firm performance?

1.4 Research Objectives

Based on the above research questions, the following research objectives were developed:

1. To examine the relationship between Entrepreneurial orientation and firm performance
2. To examine the relationship between social network and firm performance.
3. To examine the relationship between human capital and firm performance.

4. To determine whether human capital moderates the relationship between entrepreneurial orientation and firm performance.
5. To determine whether human capital moderates the relationship between social network and firm performance.
6. To determine whether competitive advantage mediates the relationship between entrepreneurial orientation and firm performance.
7. To determine whether competitive advantage mediates the relationship between social network and firm performance.

1.5 Scope of the Study

The study focuses on the SMEs in Nigeria, with a view to investigate the impact of entrepreneurial orientation, social network and human capital on SMEs' performance in Nigeria. Hence, entrepreneurial orientation and social network are the independent variables of the study, while firm performance is the dependent variable. Similarly, the study focuses on the moderation of human capital and mediation role of competitive advantage on the relationship between entrepreneurial orientation, social network and the performance of SMEs' performance in Nigeria. This study considers SMEs registered with Small and Medium Enterprises Development Agency of Nigeria, and the variables point out above. This enables the researcher to know whether owners/managers undertake EO, SN, HC and CA activities or otherwise. Furthermore, the scope of the variables is

determined by the outcome of CFA. The study was conducted in using survey research. Particularly, a questionnaire was administered to the owners-managers of the SMEs. The study was limited to the owners/managers of SMEs in all the sectors located in Kano state northwestern Nigeria. The unit of analysis is organization where the owners/managers of the SMEs will represent their organization. This study chooses Kano state because base on the statistics by SMEDAN (2013) Kano has the highest number of SMEs and commercial activities in the northern part of the country and second largest in the whole country after Lagos state. In addition, Kano State is among the oldest, northwestern and northern state of Nigeria in general which had the highest number of states, highest population and the highest number of SMEs in the country (NPC, 2006, SMEDAN, 2012).

In addition, the study focus on indigenous SMEs particularly in Kano State, because the sector has been ignored in previous studies (Gorondutse, 2013). The people from all parts of Nigeria and other neighboring countries as well as from other continent with diverse religions, cultures, attitudes, language and behavior are performing different business and participating in the several economic and financial activities in the state. The sample from the study population meets the stringent requirement for generalization because it is relatively homogeneous (Babie, 1990).

1.6 Significance of Study

This study contributes to the current body of knowledge and more precisely, by making contribution to the insufficient body of knowledge in entrepreneurial orientation and

social network studies. Therefore, this study applied RBV (Barney, 1991; Das & Teng, 2000; Barney, 2001; Barney *et al.*, 2011) into entrepreneurial orientation, human capital and social network and introduce a theoretical framework to an area of study. Specifically, this study add both moderator and mediator to expand on current theoretical perspective of entrepreneurial orientation and social network theory on SMEs performance in Nigeria. To the best of my knowledge existing research so far failed to examine the potential effects of both human capital and competitive advantage on social network, and entrepreneurial orientation on firm performance, therefore mixture of different strategy is warranted (Grinstein, 2008; Hakala & Kohtamaki, 2010). The current study also contribute to the understanding of the role of social network and managers/owners perspective in established firms which has been little serious study undertaking previously. Majority of previous studies are extensively researched social network on start-up firms.

The study also incorporates both financial and non-financial measures of firm performance, contrast to previous researches that have use either one of the financial and non-financial measures. It is also among the few studies that considers the entire sector of SMEs, especially in Nigeria. Additionally, the study contributes by testing the mediating role of the major constraint of SMEs' performance in Nigeria. Further, the study contributes to the advancement of the body of academic literature relating to strategic orientations and SMEs' performance by testing the mediating role of competitive advantage. It also benefits academics in enhancing their knowledge and understanding

concerning the variables under study within Nigerian context. The study focus on the social network theme in Africa, particularly Nigeria, as opposed to other studies that were conducted in different parts of the world. The uniqueness of Nigeria from other parts of the world is seen from the side of economic development, the level of research and awareness and understanding on the importance attached to the research is low compared to the developed countries. In addition, the outcome of this study provide benefit to SME's managers, business practitioners, and government in terms of making policies.

The methodology adopted in this study, i.e. the instrument used in measuring the variables under study is an additional contribution to the measurement as they further tested in Nigerian context. Most of social network, human capital and Entrepreneurial orientation studies to performance relationship literature were conducted in developed countries, study in Nigeria add to the understanding as to whether the measurement instrument are still relevant in other contexts different from that of developed countries.

1.7 Definition of Terms

The definition of terms use in this study will be based on the previous researches conducted, and include:

1. Entrepreneurial orientation is define as the CEO's strategic orientation reflecting a willingness of a firm to engage in entrepreneurial behaviors. Wiklund and Shepherd (2005) held that entrepreneurial orientation is an element of organizational- level entrepreneurship. There are three dimensions of

entrepreneurial orientation: innovation, pro-activeness, and risk-taking (Covin & Slevin, 1991).

2. Social Network refers to the relationship between the ego and alter/s for obtaining resources for corporate purposes. Alters comprises friends, family members, relatives and business associates which entrepreneurs keep in dealings with (Garcial & Carter, 2009)
3. Firm performance refers to the organization desire of success in doing business (Suliyanto & Rehab, 2012)
4. Human Capital refers as general human capital (age of entrepreneur, gender, educational level and work experience) and the capability to perform a specific task in the business (Samad, 2010)
5. Competitive advantage the sources of competitive advantage construct of Ramaswami *et al.*, (2004) is used for this study, which include Development of Differentiated Products, Market Sensing, Market Responsiveness: Customers, competitors is a business concept describing attributes that allow an organization to outperform its competitors. These attributes may include access to natural resources, such as high-grade ores or inexpensive power, highly skilled personnel, geographic location, high entry barriers, etc.

6. Small and Medium Enterprises (SMEs): SME is any industry with a maximum asset base of N200 million, excluding land and working capital, and with the number of staff employed by the enterprises not less than 10 and not more than 300 (Lawal and Ijaiya, 2007). The Central Bank of Nigeria defines small and medium enterprises in Nigeria according to asset base and number of staff employed. The criteria are an asset base equal or less than N5 million, and a staff strength equal or less than 100 employees (CBN 2013)

1.8 Organization of the Thesis

This study is organized into five chapters. Chapter 1 outlines the introduction, statement of problem, research questions, research objectives, scope, and significance of the study and definition of terms.

Chapter 2 focuses on reviewing relevant literature on SMEs' performance, EO, SN, HC and CA. The chapter is a review of empirical findings and methods as to the relationship between EO, SN, HC, CA and firm performance. Additionally, the underpinning theory is discussed in this chapter.

Chapter 3 describes the research methodology of the study. The research framework and hypotheses development are explained in this chapter. In addition, the chapter describes the operationalization of the variables and measurement of instruments, research design research population, sample size, sampling method, as well as the strategies and instrument for the data collection. The chapter discusses the method of data analysis and

the statistical package used in the study. Finally, reliability testing of pilot or preliminary study is reported.

Chapter 4 describes the statistical analysis of the data collected through, which include data examination, screening and preparation. Then, the measurement model as well as the structural model, which were assessed with PLS-SEM using the SmartPLS 2.0 and 3.0 software package, were analyzed and reported. Consequently, results of the hypotheses based on the assessment of the structural model are reported.

Chapter 5 discusses the research findings based on the research objectives and hypotheses. Furthermore, the chapter provides the theoretical and practical contributions and implications of the findings of this study. The chapter describes the research limitations and suggests future research direction. Finally, the chapter presents the conclusion of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter discusses the relevant literature on entrepreneurial orientation, social network, human capital, competitive advantage, and firm performance. The development of this chapter is therefore geared to present mainly the relevant literature to the research questions under examination and to build a theoretical rationale for the selection of the dependent and independent variables applied in this thesis.

2.2 Small and Medium Sized Firms in Nigeria

Small and medium enterprises have been defined in many ways at different context, and these definitions are based on the classifications, perceptions and interpretations by both the government, scholars and other people. Many countries consider their industrial development level and other economic factors in defining SMEs (Tiwari & Swarup, 2013). According to Atkins and Lowe (1997) definitions of SMEs are based on various categories that vary from one industry to industry and from one country to country. That has made it difficult to find any accepted formal justification. Numerous approaches have been used, fundamentally quantitative or qualitative in nature, with the large variety of classifications in the industry.

Even though the World Bank and United Nations have defined small businesses and SMEs, there is no international agreement yet to define these terms worldwide. The quantitative criteria such as the number of employees, amount of capital and amount of assets have been used by the international organizations to define SMEs.

According to the World Bank (WB) SMEs are:

- (a) Operations having up to 50 workers and total asset sales of USD 3 million
- (b) Micro-businesses as those having 10 workers and annual gross sales of USD 100.000, and total assets up to USD 10.000
- (c) Medium enterprises with 300 workers and total assets sales of USD 10 million.

The common approach of classification of SMEs is the number of employees in most countries. For example, the EU has standardized micro businesses as those taking less than 10 workers. As such, firms using less than 50 personnel are small and those enterprises operating using fewer than 250 are medium, and all other enterprises employing above these numbers are considered large companies (Alasrag, 2006). In the United State of America (USA), it is also the number of employees that categorizes companies. The medium scale-companies are those with less than 500 employees and those with 50 workers are considered as small companies, while microenterprises are those with not more than 10 workers. The Bolton Report (1971) has classified SMEs using the following essential characteristics:

- (a) The owners are personally managing the firm.
- (b) The firm have a moderately small share of the market.
- (c) Independently, the owner(s)/ managers control all the activities of the firm.

Hauser (2000) meanwhile, has adopted a qualitative approach to the definition of SMEs as one where,

- (a) The identity of ownership and activity is personal.
- (b) The owner is personally liable for the practice of entrepreneurship and the financial position of the firm.
- (c) The owner is personally responsible for the success or failure of the firm.
- (d) There is a personal relationship between the employer and the employees.

Barry and Milner (2002) who had carried out studies on SMEs, say that SMEs are different from large firms about operation, external and internal environment, specifically the number of workers, market share, size of turnover and the management. Being personalized is one of the most important criteria that differentiates SMEs from large companies. In summary, there is no agreement yet to define SME's, however, the common quantitative criteria are the amount of capital, amount of asset, and the number of employees (Hashim, 2007).

In Nigeria, numerous attempts have been made to define and classify SMEs. By different organizations. These institutions comprise Small and Medium Industries Equity Investment Scheme (SMIEIS), Central Bank of Nigeria (CBN), Nigerian Institute for Social and Economic Research (NISER), Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), Federal Ministry of Industry (FMOI) and National Association for Small and Medium Enterprises (NASME). Additionally, different government organizations apply several definitions of SMEs because of their policies. For example, The Federal Ministry of Industry's guideline defined small-scale enterprise as one with a total cost not exceeding N500, 000 (excluding cost of land but including working capital). The Nigerian Industrial Development Bank (NIDB), defined small scale enterprise as an enterprise that has investment and working capital not exceeding N750,000 or \$5,000 (\$1 = N150); SMEs has also defined medium scale businesses as those operating within the range of N750,000 to N3.0 million (\$5,000 to \$20,000). In 1979, the Central Bank of Nigeria (CBN), in its credit guidelines to commercial banks, stated that small scale enterprises were those with annual turnover not exceeding N500,000 (\$3,333); while, Centre for Industrial Research and Development (CIRD) of the Obafemi Awolowo University, defined a SMEs as an enterprise with a working capital base not exceeding N250, 000 and employing on full time basis, 50 workers or less.

Nigerian Bank for Commerce and Industry (NBCI), adopted a definition of small scale business as one with total capital not exceeding N740, 000, (excluding cost of land but including working capital).; while the merchant banks regarded small scale enterprises as

those with capital investment not exceeding N2 million (\$13,333) (excluding cost of land) or with maximum turnover of not more than N5 million (\$33,333). SMEs as defined by CBN as an outfit with a total capacity outlay (excluding land) of between N2 million and N5 million. but SMIEIS recognizes SME as any industry with a maximum asset base of N200 million, excluding land and working capital, and with the number of staff employed by the enterprises not less than 10 and not more than 300 (Lawal and Ijaiya, 2007).

SMEDAN in 2012 came up with the most recent definition of SMEs in Nigeria Micro firms are those with not more than ten workers, and the total cost of not more than five million Naira, including working capital but excluding land. Small firms are those with ten to forty-nine workers, with a total cost of five million Naira, but not exceeding fifty million naira, excluding cost of land but including working capital; while medium-scale are those enterprises with a labour size of between fifty and one hundred and ninety-nine, with a total cost of above fifty million Naira, but not exceeding five hundred million Naira, excluding cost of land but not including working capital. In Nigeria, SMEs sector are very small hiring the maximum of 50 individuals, who in most circumstances are associates of the one family members or close associates. The major activities of small scale businesses in Nigeria are food vending, farming, hair dressing/barbing salon, welding, bread/cake baking, sale of second hand clothing, produce buying, sale of health/herbal products, secretarial/telephone services, sale of hand sets and recharge cards, repairs/unlocking of hand sets, molding of cement blocks for sale, sale of vehicle spare parts, soft drinks/beer sales etc. This can be summarize in the diagram below:

Table 2.1

Definition of SME by Nigerian Institution

S/N	Size category	Employment	Asset(in million)
1	micro enterprise	Less than 10	less than five
2	small enterprises	10 to 49	5 to less than 50
3	medium enterprises	50 to 199	50 to less than 500

Source: SMEDAN 2012

2.2.1 Role of SMEs in Nigeria

It has been unanimously agreed in both theory and practice that SMEs contribute significantly towards the promotion of industrial sector in particular and Nigerian economic development in general. According to Kurfi, (1997), Ogechukwu, (2011) and Abiodun, (2014) the followings are the role played by SMEs toward the Nigerian economy:

- i) **Employment Generation:** Nowadays global attention is on job creation, which is one of the relevance issues for promoting SMEs development. Most of the countries all over the world used the platform of SMEs to combat unemployment. SMEs assist Nigerian Government in reducing unemployment, where SMEs sector absorb up to 80% of jobs in Nigeria (SMEDAN, 2014).
- ii) **Poverty Alleviation:** Nigerian government use the SMEs sector to alleviate poverty in the country through the establishment of various programmes that

engage people in many socio economic activities. This is to achieve its target in millennium development goal as well as vision 2020 of ensuring self-reliance among the citizens in the country.

- iii) Small and Medium enterprises sector encourages the utilization of local resources and this will improve the production of simple consumer goods that is mainly from local raw materials.
- iv) Income Distribution: SMEs encourage equitable distribution of income and wealth in Nigeria. SMEs exist in every part of the country (i.e. Rural and urban area), and make it possible for people of such areas to share equally the incentive and all the facilities provided by the government. For instance, the creation of Entrepreneurship Development Centres and Small Scale Industrial Centres in every state of the federation.
- v) Entrepreneurship Development: entrepreneurial activities developed because of the growth of SMEs in the country, where entrepreneurs access the local raw materials with little capital.
- vi) Small and Medium enterprises serve as a source of government revenue by taxes paid to the government.

Okpukpara, (2009) identified the following as an advantage attached to SMEs: the ability to create new market, in SMEs resources are localized and accessible, provision of elastic

production base, employment of uncomplicated technology, activity based that is essential for rural economy by the provision of employment and as well as poverty alleviation. In another vein, Salami, (2003) outlined the some of the benefits connected to SMEs in Nigeria as: Production of intermediate goods, utilization of local resources, expansion of output, expanding government revenue, job creation, guarantee even development as well as the transformation of home-grown technology. Others among the role played by SMEs toward the development of Nigerian economy are: maintenance of foreign exchange, conservation of cultural heritage, capital formation as well as the promoting of traditional craftsmanship.

According to Zaman (2011) itemize the following as the SMEs roles in the economy:

- I. They boost entrepreneurial spirit of youths.
- II. SMEs are efficient in resource allocation as compare to that of large-scale companies from social point of view.
- III. They play significant contribution in the transition or agriculture led economics to industrial ones.
- IV. They contribution to improved living standards, substantial local central formation and high level of productivity.
- V. They generate employment and alleviate poverty.

Onugu (2005) suggests the importance of SMEs to Nigeria Economic Development as follows:

- i) SMEs act as catalyst for technology development.
- ii) They serve as major source of employment
- iii) They provide a training avenue for the creation of future entrepreneurs in several areas of economic activity.
- iv) SMEs are a major source of domestic capital formation through their mobilization of savings and channeling of such in productive investment.
- v) They said the process of redistribution of incomes.
- vi) SMEs provide intermediate/semi processed goods for use by large-scale firms.
- vii) SMEs engage in manufacturing serve as channels for import substitution and promotion of exports.
- viii) They provide sound development for improving the standard of living of the citizenry.
- ix) SMEs provide a variety of choice to the customer
- x) They also constitute a critical source of specialization for most large organizations operating in the economy.
- xi) SMEs facilitate structural transformation to the rural areas.
- xii) SMEs help in improving rural incomes and general rural living conditions and by extension the country per capital income.
- xiii) They also serve as a strategy for checking rural-urban migration and;
- xiv) They in their limited ways help in reducing the development gap between these areas and the urban centers and in this way help sustain economic growth.

2.2.2 Government Programs in Nigeria SME Sector

In almost every country SMEs are assisted largely because of the crucial role they play in the economic growth and development. In recognition of the crucial roles played by SMEs with respect to economic growth and development, successive governments in Nigeria had numerous initiatives aimed at promoting SMEs in the country. Some of the institutions and opportunities created by the government to support SMEs in the past 30 years include:

1. Small Scale Industries Credit Scheme (SSICS) 1971
2. Nigerian Bank for Commerce and Industries (NBCI) 1973
3. Nigerian Industrial Development Bank (NIDB) 1964
4. SME Apex Unit of Central Bank (1989)
5. National Economic Reconstruction Fund (NERFUND) 1989
6. The African Development Bank/ Export Stimulation Loan (ADB/ESL) 1989
7. Nigerian Export Import Bank (NEXIM)
8. National Directorate of Employment (NDE)
9. Industrial Development Coordinating Centre (IDDC)

10. Community Banks

11. People's Bank

12. Family Economic Advancement Programme (FEAP)

13. State Ministry of Industry SME Schemes

14. Small and Medium Industries Equity Investment Scheme (SMIEIS)

15. Bank of Industry (BOI)

16. Small and Medium Enterprises Developing Agency of Nigeria (SMEDAN)

17. Credit Guarantee Scheme for SMEs (underway)

2.2.3 Problems and Challenges of SMEs in Nigeria

It has identified in many studies that SMEs in Nigeria encountered with many problems and challenges, which contribute immensely to their pre-matured death and low performance. Despite the numerous role and benefits derived from SMEs Sub-sector in Nigeria, Oluboba, (2003); Adelaja, (2007); Ogechukwu, (2011); Eniola, (2014) identified the following as problems and challenges face by SMEs in Nigeria:

- i) Difficulty in sourcing of capital: Securing of loans from commercial banks and other financial institutions takes longer time due to much conditionality

attached. Moreover, most of the banks in Nigeria are not abided by with the CBN instruction in serving SMEs by providing the required funds. Another common issue is in adequate collateral and perception of banks on SMEs as a sector that have the highest level of risk.

- ii) Lack of Bankable and strategic business plan: bankable business plan is part of the pre-requisite in accessing microfinance in Nigeria, and the inability of many SMEs entrepreneurs to prepare a bankable or start-up business plan make it difficult for them to access microfinance in Nigeria. The absence of strategic planning also make it difficult to achieve their daily target, understand and detect market situation, and this contribute to early death of many small businesses.
- iii) Lack of Opportunity Awareness: Most of SMEs entrepreneurs are not aware of many financing option and other programmes and schemes prepared for promoting SMEs that exist in Nigeria, which is why they are ambivalent on where to source the funds and how to finance their businesses.
- iv) Lack of managerial competency: Most SME entrepreneurs are not competent enough and they believe that they cannot make it, in terms of competition by the large organizations, inadequate skills/ experience and desire to operate with limited openness leads most of the SMEs to go for semi-skilled and unskilled labor. Therefore, this will affect the level of productivity.

- v) Problem of infrastructural facilities: availability of infrastructural facilities such as good road, power (electricity) and water supply will enhance level of production as well as the distribution of goods and services. There is evidence of inadequate water and electricity supply; poor road network along the major area that have lots of small business concentration. These constitute the fundamental problems to the survival and operation of SMEs in Nigeria.
- vi) Poor Administration and Mismanagement of Financial Resources: Many SMEs operate without proper accounting record, lack of cordial and good working relationship among the employees. However, some of the SME entrepreneurs divert the loans access for their personal spending, and this leads to default in paying back the loans at the stipulated/ maturity dates.
- vii) Policy implementation problem: Improper implementation is not restricted to only SMEs Sub-sector but to the entire sector in Nigerian economy. Many policies initiated at different situation and times with different government, but if it comes to implementation, the policy or program fails.

One major shortcoming in Nigeria's quest for SMEs and industrial development over the previous years has been the lack of a strong, vibrant and mile sector. A number of reasons have been adduced as to why the expectations from the SMEs have not been meet (Ajayi & Jegede, 2014) they are:

- i) Devaluation of Naira

- ii) Political instability
- iii) Privatization and;
- iv) Lack of electricity supply

Zaman (2011) classifies the following as the major problems confronting SMEs, which include:

- i. Lack of basic infrastructures
- ii. Lack of skilled workers
- iii. Marketing and Distribution problems
- iv. Delayed payments
- v. Extreme competition
- vi. Delayed payments
- vii. Gradual withdrawal of reservation policy
- viii. Mind self-problems
- ix. Outflow wealth and;
- x. More prone to global fluctuations

Ajayi & Jegede, (2014) identified from the responses to the questionnaires and the personal interviews key broad problems areas working against SMEs in Nigeria:

- I. Management problems
- II. Access to finance/capital
- III. Infrastructural problems

- IV. Environment policy inconsistency and bureaucracy
- V. Environmental related problems
- VI. Multi taxes and levied
- VII. Access to modern technology
- VIII. Unfair competition
- IX. Marketing related problems
- X. Non-availability of raw materials locally
- XI. Lack of access to appropriate technology
- XII. High dependence on raw materials with the attendant high foreign exchange.
- XIII. Weak demand for products arising from low and dwindling consumer
Purchasing power
- XIV. Absence of long-term finance of fund capital assets and equipment under
Project finance for SMEs
- XV. Widespread corruption and harassment
- XVI. Weakness in organization marketing, information
- XVII. Lack of scientific and technological know-hoe.
- XVIII. Lack of strategic succession plan.
- XIX. Lack of initiative and administrative framework to support and sustain SMEs
Development and;
- XX. Lack of suitable training and leadership development (Onugu, 2005).

Furthermore, in his study, Okpara, (2011) itemized administrative problems, such as poor

management skills, accounting and finance, and lack of planning; and lack of financial support as the major challenges that SMEs faced in Nigeria. He also identified corruption, poor location; poor infrastructural facilities as well as illegal business conduct as the other factors that are affecting SMEs in Nigeria. Others are lack of access to essential information, poor technology adaption, absence of property protection rights, high dependency on import, weak purchasing power, high inflation, corruption, lack of honesty, inadequate power, poor business position and poor marketing strategies as the major challenges of SMEs in Nigeria (Obamuyi, 2007; Okpara & Kabonga, 2009).

2.2.4 The Small and Medium Enterprises Development Agency of Nigeria (SMEDAN)

Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) was established in 2003 by the government in order to continue examine for solutions toward s vibrant and virile micro, small, and medium enterprises sector and main stream of Nigerian economy. The Organization is a “one stop shop” for nursing and nurturing micro, small, and medium enterprises (MSME) in Nigeria. Therefore, SMEDAN has been in forefront since inception in the developing and promoting Micro, Small and Medium enterprises and entrepreneurs in Nigeria. The mission of SMEDAN is “to facilitate the access of micro, small, and medium entrepreneurs/investors to all resources required for their development.” While the vision of SMEDAN is “to establish a structured and efficient micro, small, and medium enterprises sector that will enhance sustainable economic development of Nigeria.”

The organization delivered information on access to finance, raw materials, business sensitization, general business, machinery, advisory services, markets and business counselling through their offices and consultants to 29,993 prospective MSMEs in 2010.

So far, SMEDAN has overall of fifteen Business Support Centers (BSCs) and thirty-seven Business Information Centres (BICs) and have one zonal offices in each six geo-political zones to manage the activities of the SMEs in the states under their Control. In addition, the zonal offices have been equipped to effectively oversee the activities of BSCs, BICs and Industrial Development Centres (IDCs) for effective service delivery to MSMEs. The zonal offices are located in the six Geo- political zones as follows:

Lokoja (Kogi State) North Central

Bauchi (Bauchi State) North East

Kano (Kano State) North West

Yenegoa (Bayelsa State) South South Enugu

(Enugu State) South East

Lagos (Lagos State) South West

2.2.4.1 The Functions of SMEDAN

The functions of the Agency as enunciated in the SMIDA Act, 2003 are listed below:

1. Initiating and articulating policy ideas for micro, small, and medium enterprises growth and development;
2. Stimulating, Monitoring and coordinating the development of the MSMEs sector;
3. Promoting and facilitating development programmes, instruments and support services to accelerate the development and modernization of MSMEs;
4. Serving as a vanguard for rural industrialization, poverty reduction, and job creation and thus facilitating enhanced sustainable livelihoods;
5. Linking MSMEs to internal and external sources of finance, appropriate technology, and technical skills as well as to large enterprises;
6. Overseeing monitoring and coordinating the development of the MSMEs sector;
7. Promoting and providing access to industrial infrastructure, such as layouts incubators and industrial parks;
8. Providing assistance to MSMEs in marketing their products.
9. Mobilizing internal and external resources, including technical assistance, for the

development of MSMEs;

10. Promoting the familiarization, sub-contracting, networking, and crosscutting strategic linkages between MSMEs and other economic sub-sectors;

11. Creating beneficial linkages between MSMEs and research institutes/universities;

12. Providing extension services to MSMEs;

13. Monitoring implementation of government directives, incentives and facilities for MSMEs development;

14. Recommending to government required amendments to business regulatory frameworks for ease of enterprise development.

15. Working in concert with other institutions in both public and private sectors to create a good enabling environment of business in general, and MSMEs activities in particular

16. Enhance MSMEs Access to Finance

17. Liaise with financial institutions to harness and pool resources for utilization by MSMEs.

2.3 Firm Performance

Performance is the most significant dependent variable for researchers concerned with almost all areas of management (Richard *et al.*, 2008) for the reason that it explains how well an organization is doing (Obiwuru, Okwu, Akpa, & Nwankwere, 2011; Koonts & Donnell, 1993). Organization performance can be defined as the ability to realize objectives of the firm such as high profits, good financial outcomes, good quality products, a large market share, and long-term survival, using relevant strategies for action; it is an indicator of how well a firm realizes its objectives (Ho, 2008). Lusthaus, Adrien, Anderson, and Montalván. (2002) in his analysis of organizational performance defined it as an important step in ensuring organizational success, yet there is little agreement as to what constitutes a valid set of measures for assessing organizational performance as a result of the complexity of the construct. Performance is still an indistinct and ‘loosely defined’ variable, even though the literature in organizational research shows that it has been used extensively as a dependent variable and that several studies concentrated on identifying the aspects that affect the variability in performance outcomes (Rogers & Wright 1998; March & Sutton 1997; Richard *et al.*, 2008).

Richard *et al.*, (2008) defined performance as incorporating three specific areas of organization results: financial performance, product market performance and shareholder return. In the study by Lusthaus *et al.*, (2002) firm performance can be seen in terms of the followings: effectiveness defined as the ability of the firm to attain its objectives Vis-à-vis those competitors in the same market, eg. Sales growth and market share. Efficiency:

accuracy, how economically the organization can turn resources/inputs into results, financial viability: ability to nurture required funds and relevance: adaptive to the stakeholders and its environment. Tangen (2003) argued that organizational performance measures as metrics selected to measure the efficiency and/or effectiveness of an accomplishment/achievement by the business organization.

In one study, Ruekert and Walker, (1987) presented a framework of business performance that measures business performance in terms of effectiveness, efficiency and adaptability. Effectiveness refers to the success of a business' strategies *vis-à-vis* those of competitors in serving the chosen markets. Measures such as sales growth and market share. Efficiency signifies the outcome of business' strategies in respect of the resources used in achieving them and is determined using financial ratios such as return on investment. Adaptability refers to the extent to which the organization is successful in responding over time to changing external environmental conditions. Successful new products and/or services in response to changing customer needs and competitor offerings serve as a surrogate for adaptability. Subsequent and more recent work has validated the merits of this balanced approach to measuring performance (Morgan *et al.*, 2002).

Dess and Robinson (1984) as cited by Ringim (2012) also used measures in assessing SMEs performance and other firms for long-term survival in the incident of competition and globalization. The meters used in measuring business performance include profitability, liquidity, management performance, advantage market share, innovation, productivity, human resource management and quality of goods and services.

Measures that provide managers with facts on the performance of their firm are critical management tools (Hammer, 2001). Financial outcomes are one of many measures that are critical to determining if a firm's specific approaches to doing business are effective (Drucker, 1989). Drucker's (1954) purpose of the business is realized when a firm identifies the linkage between its strategic methods and profitability. Yusuf (2002) argued that there is no agreement on a suitable measure of company performance.

Performance can be measured by two perspectives:

- a) Objective concept based on absolute measures of performance, and
- b) A subjective concept involving self-reported measures (Sin, Tse, Yau, Lee, & Chow, 2004).

Previous studies have found a strong correlation between subjective and objective responses (Dess & Robinson, 1984; Jaworski & Kohli, 1993; Dess *et al.*, 1997; Dawes, 1999). Pearce, Robbins, and Robinson (1987) suggested that subjective measures were reliable means of measuring firm's performance.

Olosula (2011) defined firm performance as capability to measure the success of a private organization whether its small or large. Small firms are evaluated in terms of number of employees, working capital strength, and size of the firm as well as profitability. Davood and Morteza (2012) observed that firm performance is the capability of an organization to generate satisfactory results and actions. Therefore, business performance is a vital issue in organizations' undertakings that require sufficient scheduling and commitment. Minai and

Lucky (2011) sees SMEs performance in two perspectives: the financial/monetary and the non-financial/non-monetary measures. Other studies have used only financial performance measures as an indicator of general business performance (Murphy, Trailer, & Hills, 1996). While, others prefer the non-financial or subjective measures in assessing SMEs performance. In the same way, Ittner and Lacker (2003) viewed that non-financial/subjective measures help SMEs to determine the success or failure of their companies.

Tikman and McCormack (2009) argued that performance measurement is essential in organizations because its serve as a measure for attaining important expansion in the organizations activities and it help the firm to ascertain the level of success or failure in the organization.

Therefore, from the above discussion and concepts, firm performance is considered to be organizational desire to achieve its desire objectives and organizational commitment. It can also be assessed using either financial and or non-financial based on the SME goal intended to be achieve.

2.4 Entrepreneurial Orientation

Entrepreneurship has long been often linked with firms pursuing to increase competitive position (see for example Covin & Slevin, 1988; Covin & Slevin, 1989; Miles & Arnold, 1991; Smart & Conant, 1994; Zahra & Covin, 1995; Covin & Miles, 1999; Miles, Paul,

& Wilhite, 2003; Wiklund & Shepherd, 2005; Covin & Miles, 2007; Covin & Lumpkin, 2011; Miller, 2011).

According to the idea introduced by Schumpeter in 1934, Entrepreneurship as a concept is characterized by strategic orientation and innovative behavior in pursuit of profitability and growth (Carland, Hoy, & Carland, 1988) and the process comprises of merging resources for value creation in an organization (Tan 2007). Others have defined entrepreneurship as the process of creating new venture, new entry and taking advantage of opportunities by maximizing resources in ways, which have impacts on the market (Low & MacMillan 1988; Lumpkin & Dess 1996; Wiklund 1999).

Entrepreneurship compared to the other field of study that has received attention from many scholars since the beginning of the twentieth century, entrepreneurship is a young body of knowledge although rapidly growing (Cogliser & Brigham 2004). The study of entrepreneurship is at an early stage of development from the conceptual and methodological points of view (Aldrich & Baker 1997) and currently seen as being in significant growth and an emerging stage of development (Busenitz *et al.*, 2003). McGrath and MacMillan (2000) recommend incorporating an entrepreneurial mindset as a core element of strategic management, particularly in high-velocity environments of competition and change. An entrepreneur is an individual who is instrumental to the conception of the idea of an enterprise and its implementation (Kets de Vries, 1996). The entrepreneur uses risk-taking, pro-activeness, and innovation (Cauthorn, 1989). These factors are called entrepreneurial orientation. Entrepreneurial orientation is a commonly

used measure in the literature (Morris & Kuratko, 2002).

Entrepreneurial orientation (EO), on the other hand, is becoming a popular subject (Wiklund 1999) and is among the field of research in entrepreneurship in which the body of knowledge is increasing (Rauch *et al.*, 2009). Covin and Wales (2012) also recognized that the subject of entrepreneurship is driving force behind effort of the organization success and has turn out to be a dominant focus of the entrepreneurship literature and the subject matter of research for more than 30 years. The study of EO is well recognized in US entrepreneurship research and strategy but is still in its initial stages in the non-US commercial environments (Runyan *et al.*, 2012).

Miller (1983) argued that, an entrepreneurial business could be defined as one that is involved in risk taking, product market innovation, and proactive innovations. A non-entrepreneurial firm is characterized by non-risk taker, a minimum level of innovations, and is a follower rather than a pioneer compared to the competitors. He also suggests entrepreneurial orientation included three dimensions: innovation, risk taking, and pro-activeness. Lumpkin and Dess (1996) defined EO as the process, practices and decision-making activities that lead to new entry. Zahra and Neubaum (1998) state that entrepreneurial orientation is the sum total of a firm's radical innovation, pro-active strategic action, and risk taking activities that are manifested in its support of projects with uncertain outcomes. More recently, Wiklund and Shepherd (2005) defined EO as the strategic orientation of a firm that captures precise aspects of entrepreneurial decision-making styles, practices and practices. The term entrepreneurial orientation can be

refers to as strategy making processes and styles of companies that involve in entrepreneurial undertakings. Nevertheless, Morris and Paul (1987) defined EO as the inclination of a business's top management to take planned risks, to be innovative, display proactiveness in their tactic to decision-making strategy. In this definition, EO is regarded as decisions to be made by the top management of an organization. For the self-assessment approach by either the owners or the top managers of SME establishments to measure EO.

Miller (1983) introduced three main dimension of EO, which include: innovativeness, proactiveness and risk taking. These key measurements have been widely used by scholars in prior studies (Covin & Slevin 1989; Lumpkin & Dess 1996; Moreno & Casillas 2008). The three dimension that constitute the EO suggested by Miller (1983) was extended by Lumpkin and Dess (1996) by adding another two factors of EO: competitive aggressiveness and autonomy. Although they suggested including these two as additional factors of a firm's EO, they agreed that innovativeness, proactiveness and risk taking are the key factors of EO. Similarly, Wiklund (1999) asserted that many scholars have agreed and understand that EO is a combination of three dimensions: innovativeness, proactiveness and risk-taking. Others studies include Colvin & Slevin 1989; Naman & Slevin (1993) also followed the three dimensional model created by Miller (1983). Similarly, EO has frequently been operationalized in terms of three dimensions: 'innovativeness', 'risk-taking' and 'proactiveness' as recognized by Covin and Slevin (1989) building upon the previous study of Khandwalla (1976) and Miller and

Friesen (1982), to test and characterize entrepreneurship. Furthermore, some scholars claimed that 'Competitive Aggressiveness' forms a part of the proactiveness dimension and does not signify a separate dimension (Hough & Scheepers, 2008; Chang & Lin, 2011).

Innovativeness of entrepreneurs is measured by the disposition by which entrepreneur innovate their business (Miller and Friesen, 1982); the enthusiasm to embrace new thoughts or new strategies to their business operation; their readiness to attempt new ways which are unique in relation to current; and the enthusiasm to implement the innovation tactic in their business (Khandwalla, 1987). The EO dimension of innovativeness reflects a company's propensity to take part in and support new ideas, experimentation, novelty and creative techniques (Lumpkin and Dess, 1996) that may bring about new products, services, or technological procedures and which may take the company to a new paradigm of success (Swieczek and Ha, 2003). Schumpeter (1934) considered entrepreneurship to be basically a creative activity and an entrepreneur as an innovator who completes new combinations in the field of men, machine money, material and management. As indicated by him, entrepreneur is an economic man who tries to make the most of his profits by making innovations in any one of the following fields: new products; new production methods; new markets; or new forms of organization. An innovative strategic posture can be linked to firm performance as it increases the chances that a firm will realize first mover advantage, stay ahead of their competitors, gain a competitive advantage and capitalize on emerging market opportunities that lead to improved financial results (Kreiser *et al.*,

2002; Wiklund, 1999; Hult *et al.*, 2004; and Kreiser and Davis, 2010).

The second dimension of EO is proactiveness. Proactiveness is an important element of entrepreneurship (Venkatraman 1989). It refers to opportunity-seeking, forward-looking perspective involving introducing new products or services ahead of the competition and acting in anticipation of future demand to create, change and shape the environment (Lumpkin and Dess, 1996; and Kreiser *et al.*, 2002). Proactive firms strive to be pioneers, thereby capitalizing on emerging opportunities (Wiklund & Shepherd 2005). Proactiveness is also important for organizational processes since it demands a forward-looking perspective (Kropp & Zolin 2005) and is considered a hallmark of entrepreneurship (Lee *et al.*, 2001). Proactiveness is manifested in: (1) aggressive behavior directed at rival firms; and (2) the organizational pursuit of favorable business opportunities. It is simply the ability to take initiative, whenever the situation demands. Porter (1985) suggested that in certain situations, firms could utilize proactive behavior in order to increase their competitive position in relation to other firms. Proactiveness is concerned with first mover and other actions aimed at seeking to secure and protect market share and with a forward-looking perspective reflected in actions taken in anticipation of future demand (Venkatraman, 1989; Naman and Slevin, 1993; Lee and Penning, 2001; and Dimitratos *et al.*, 2004). It is not only in defense, but in offence as well. It refers to processes aimed at anticipating and acting on future needs by seeking new opportunities which may or may not be related to the present line of operations, introduction of new products and brands ahead of competition, strategically eliminating

operations which are in the mature or declining stages of life cycle (Stam and Elfring, 2008; and Kreiser and Davis, 2010). Thus, proactiveness pertains to a willingness to initiate to which competitors then respond.

Therefore, it is important for entrepreneurial firms to be proactive, especially as the competition is becoming very strong in the global market, in order to capture a high return from their investment and to establish their reputation in the market. Proactiveness also relates to the implementation of something new, and to doing what is needed to anticipate and act on an entrepreneurial opportunity. Such pioneering action usually involves considerable perseverance, adaptability and tolerance of failure (Morris *et al.*, 2007).

The third dimension is Risk-taking, and its refers to the tendency to take bold actions such as venturing into unknown new markets and committing a large portion of resources to ventures with uncertain outcomes. Cantillon (1730) described entrepreneur to be a rational decision maker who assumes risk and provides the management of the firm. In the 1800s, John Stuart Mill argued that risk-taking is the paramount attribute of entrepreneurship. Risk-taking implies willingness for committing huge resources to opportunities, which involve probability of high failure (Mintzberg, 1973; Zahra, 1991; and Wiklund and Shepherd, 2003). Risk taking requires firms to take bold actions by launching themselves into the unknown, borrowing heavily and/or investing significant resources in uncertain ventures or uncertain environments (Rauch *et al.*, 2009). Risk taking supplements the entrepreneur's innovativeness and proactivity because without taking risks, it is difficult

for entrepreneurial firms to invest in the R&D needed for them to become pioneers in the marketplace. Risk handling is the process in which potential risks to a business are identified, analyzed, mitigated and prevented, along with the process of balancing the cost of protecting the company against a risk versus the cost of exposure to that risk. The ideal way to cope with risk is to perceive risk at its inception, and taking risk under control right from its inception stage (Cornelia, 1996). Entrepreneurs, in actuality, tend to proactively deal with the risks. Risk-taking has a curvilinear relationship with performance of entrepreneurial firms. Research suggests that entrepreneurial firms exhibiting moderate levels of risk-taking would outperform in market as compared to firms exhibiting either very high or very low levels of risk-taking (Kreiser *et al.*, 2002; Tang *et al.*, 2008; and Kreiser and Davis, 2010). Factors such as process of forming a risk problem (Stewart and Roth, 2001); results of past risk-taking (Covin and Slevin, 1989; and Swierczek and Ha, 2003b); and the ability to perform under risky conditions (Lichtenstein and Brush, 2001; Dimitratos *et al.*, 2004; and Soininen *et al.*, 2011) affect the risk-taking ability of entrepreneur.

Competitive aggressiveness refers to a firm's propensity to directly and intensely challenge its competitors to achieve entry or improve position, that is, to outperform industry rivals in the marketplace (Kraus *et al.*, 2005). It also reflects the willingness of a firm to be unconventional rather than rely on traditional methods of competing. This aspect is used to measure how entrepreneurial firms deal with threats, and it refers to the firm responsiveness directed toward achieving competitive advantage (Lumpking and

Dess, 2001; Frese *et al.*, 2002; and Grande *et al.*, 2011).

In literature, the terms proactiveness and competitive aggressiveness are often used interchangeably but there is a difference between both terms. Proactiveness states how a firm relates to market opportunities in the process of creating demand, while competitive aggressiveness refers to how firms relate to competitors, that is, how firms respond to trends and demand that already exist in the marketplace (Lumpkin and Dess, 2001).

Autonomy refers to the independent action of an individual or a team in bringing forth an idea or a vision and carrying it through to completion (Lumpkin and Dess, 1996). In general, it means the ability and will to be self-directed in the pursuit of opportunities. In an organizational context, it refers to freely taken action, irrespective of organizational constraints, for establishment and smooth running of a venture (Stevenson and Jaillo, 1990; and Kraus *et al.*, 2005). Autonomy in firms may vary with the size of organization, management style, or ownership (Lumpkin and Dess, 1996).

Many scholars are with different views to the issue whether different dimensions of entrepreneurial orientation are independent of each other or not. Covin and Slevin (1989) maintained that entrepreneurial orientation is best seen as a unidimensional concept. Contrary to this, Lumpkin and Dess (1996) opined that several dimensions of EO happen in different combinations and therefore, it is a multidimensional construct. The basic principle underlying this argument is that each of these sub-dimensions of EO may have a differential relationship with entrepreneurial outcomes. For example, innovation and

proactiveness have a positive and direct relationship with performance while risk-taking has shown a curvilinear association with performance. (Kreiser *et al.*, 2002; Tang *et al.*, 2008; and Kreiser and Davis, 2010).

Al-Swidi & Mahmood (2012) argued that some of the benefits of effective entrepreneurial orientation include: identification of the causes of customer dissatisfaction in order to develop the proper solution in dealing with them and improve organizational sustainable growth.

Three key dimensions of EO will be adopted in this study, that is, innovativeness, proactiveness and risk taking. An innovative firm is not considered entrepreneurial if it does not take risks or is not being proactive to its competitors and the environment (Aloulou & Fayolle 2005). According to Covin and Slevin (1989) a firm that shows an excellent performance in these three dimensions can be considered an entrepreneurial firm or a high performing firm. They proposed that entrepreneurial style measures the degree to which top managers favor innovative activities, are inclined to take considerable business risks and proactively compete with other

Autonomy on the other hand, describes a firm's tendency to be independent and self-directed action, symbolizes the ownership issue which is a major characteristic of SMEs (Swierczek & Thanh Ha 2003b). Kuratko *et al.*, (2005) maintained that the concept of competitiveness repeatedly overlaps with proactiveness, though autonomy can be seen as a contextual variable that allows entrepreneurial behaviour. Base on this reasons, only

the initial factors of EO as advocated by Miller (1983) were adopted.

A significant number of researchers have claimed that the application of EO at the individual level could be important for both managers and their organisations. The analysis of EO as an individual-level variable has started to receive some consideration from researchers (Davis *et al.*, 2010). Aloulou and Fayolle (2005) identified that individual leaders of entrepreneurial firms show a high level of innovativeness, proactiveness and risk-taking behaviour. Wiklund and Shepherd (2005) on the hand, contended that EO is an organizational-level variable. They defined EO as referring to a firm's strategic orientation that displays specific elements of entrepreneurial decision-making styles, methods and practices. Treating EO as an organizational-level measure would also help to reduce common method variance (Lumpkin & Dess 20016). This view claims that owners' or top managers' responses in regard to EO represent the firm's responses (Awang, khalid, Kassim, Isma'il, Zain and Madar, 2008).

2.5 Social Network

The terms social network and informal network discussed in entrepreneurship researches are often used interchangeably (Birly, 1985). This concept of network and its focus lies on the person who has the relationship with ego and thus, social network research utilizes the relationship either directly or indirectly between the ego and their alter(s). Alters comprise family members, friends, relatives and business contacts (Garcia, & Carter, 2009). With the vulnerability of the business environment today, the social network is

considered as a weapon to secure important resources for SME firms (Bruderl, and Preisendorfer, 1998).

Research on social network has emerged as a vital field of inquiry within the area of entrepreneurship in the last thirty years and has become the focus in explaining and describing the phenomenon of entrepreneurship (Bhagavatula, 2009). Through the past network literature review, it is found that the term social network sometimes has been used interchanging with entrepreneurial networking networks, business networks, or networking. Within the context of this study, the term of social network was used as a standard term referring to the network structure and networking activities performed by SME's in Nigeria.

At the initial stage, the definition on social network mainly focused on personal relationship. For example, the social network is defined as the interrelationship between the entrepreneurs (ego) and their contacts (alter/s) for business purposes (Fombrum, 1982). Carson, Cromie, McGowen and Hill (1995) defined social entrepreneurial network as an activity in which the owners build and manage personal relationship with certain individuals in their environments. The individuals may refer to friends, family, lawyers, bankers, other entrepreneurs, accountants, government officials and others. Meanwhile, Anderson, Jack and Dodd (2005) defined entrepreneurial network as a complex mixture of multiple social and professional ties, all of which tend to contain both affective and instrumental elements, bonded by trust. Trust will be developed through long-term relationship between entrepreneurs and their network persons. Nevertheless, O'Donnell

(2004) conceptualized network as a means of exploring how entrepreneurs do business. The importance of entrepreneurial network to obtain resources has been emphasized earlier by many researchers. It is believed that entrepreneurial network is beneficial to the entrepreneurs (Havnes & Senneseth, 2001). Ostgaard and Birley (1994) recognized a significant role played by entrepreneurs' personal networks especially in the early phase of firm's development and inadequate resources needed by entrepreneurs, which were supported by people around them. This view was supported by Johannisson (1987) in his study. Also, the social network can be seen as the association between the ego and their alters which is informal. For example, one can discuss business even while playing table tennis. The social network is distinguished from the formal network. The formal network consist of the association with government organizations, banks, accountants and lawyers, and this relationship is based on a business contract and agreement (Birley, 1985; Das and Teng, 1997; Littunen, 2000b). For instance, customers must follow procedures in dealing with financial institutions. In spite of a multitude of research done on these two forms of networks, the existing research still fails to clarify how existing businesses function within the social network (Amburgey and Rao, 1996).

Previous literature explains the term 'networking' as a set of actors associated with the set of ties (Borgatti and Foster, 2003) while De Klerk (2010) defined a social network as a network consists of a set of nodes (organization, individual, work unit. refers to the entrepreneurs' efforts to have social network with others (Chell and Baines, 2000). The authors defined networking as the action in which an owner-manager makes

contact for the purpose of trade and to develop their business. Meanwhile, Allan and Rutashobya (2006, p.2) defined networking as “social and economic processes through which business organisations and individuals develop permanent relationships with a particular set of stakeholders for the purpose of accessing support and facilitating exchange”. Havnes and Senneseth (2001) define the term network as any type of interaction at all levels between persons or firms. Furthermore, Jarillo (1989), and Zhao & Aram (1995) discovered that social network permits businesses to obtain numerous resources in order to grow while MacMillan (1983) revealed that networking helps to reduce risk confronted by entrepreneurs. Starr and MacMillan (1990) establish that entrepreneurs through strong tie relationships with their suppliers can enable them to get resources below market price.

There are two forms of network ties in entrepreneurial network which are either weak or strong. A strong tie network means that entrepreneur has a close relationship (interacts frequently) with the contact person. While, weak tie network is referred to an entrepreneur who seldom contacts and interacts with this group of people.

To date, various researches on network and entrepreneurship have been conducted. Among the popular variables that have been used by researchers are: network size, network composition, network intensity, degree of redundancy, time used to develop relationships, time used to maintain relationship, number of weak ties, number of strong ties, number of professional networks, contents of network, diversity of network, delegation of network, number of global network, frequency of contacts, number of

indirect contacts, network extension and dynamic network (Butler, Brown & Chamornmarn, 2003; Greve, 1995; Hansen, 1990; Jenssen & Greve, 2002; Ostgaard & Birley, 1996; Reese & Aldrich, 1995; Witt, 2004; Zhao & Aram, 1995).

This study adopted the structuralist perspective in operationalizing and measuring network, it explain the configuration of network ties of the social network. The network is organized within which the entrepreneurs and the alters act together. It also offers an understanding of the role of network structures in persuading entrepreneurial outcomes. The perspectives included in this study are the network activity, size of the network, network centrality network density this study also investigates the differences of social network activities performed by the Nigerian entrepreneurs which affect the firm performance.

The network size can be seen as a determinant in procuring benefits and resources. The larger the network size, the more additional resources available to the business entrepreneur (Greve and Salaff, 2003). Entrepreneurs that have different networks will offer diverse channels of information which would have been inaccessible to them. Uzzi (1997) argued that embededness in social network may bring down cost of transactions when obtaining funding for buseness. A long these lines, the network size can be seen as a prominent variable in influencing entrepreneurial result/outcomes especially to business.

Network Activity, social network study seeks to explain the length of time spent by businesspersons to communicate with their alters (BarNir and Smith, 2002; Greve, 1995; Greve and Salaff, 1995; Woodward, 1988). With a large network the time spent with each alter is less if compared to a smaller network where an entrepreneur has more time for discussion with their alters. There may be a higher chance of picking up useful information by spending smaller amounts of time with a bigger group of people. More information may be gleaned from the exchange of a group of alters. The heterogeneity of alters may also lead to more resources (Woodwards, 1988)

Network density can be defined as alters that are connected and know each other in the network of the ego (Hansen, 1995). The density of a network forms part of the network characteristic and also identifies the number of ties that link the ego to the alters (Dubini and Aldrich, 1992; Rowley, 1997; Frazier, 2000).

Network centrality refers to the position of the ego in the group from which the flow of information is spread (Frazier, 2000). Liu and Ipey (2010) also defined centrality as the closeness of the individual with their group members. In business, an ego that is central to communication will have early access to information and thus control the spread of information to the alters.

2.6 Human Capital

A review literature revealed various definitions and measures of human capital and its impacts on organizational performance have been debated by scholars for a past few

decades. (Samad, 2010). Most of this definitions stem from the skills, knowledge, experience and general human capital possessed by entrepreneurs. (Becker, 1975; Bruderl *et al.*, 1992; Coleman, 1988; Sequeira and Rasheed, 2006; Markman and Baron, 2003; Pennings, Lee and Witteloostuijn, 1998).

According to Coleman, (1988) human capital pertains to individual's knowledge and abilities that allow for changes in action and economic growth. Individuals knowledge and abilities can be secured from various approaches. Siegel, Siegel and McMillan, (1993) suggests that firm specific human capital model which consists of skills and knowledge that are valuable for a specific firm may give advantage for organizational and business performance over its competitors. Another model is Industry-specific human capital suggested by Siegel, Siegel and McMillan (1993), and Kenny & Burg, (1999). This concept derived from experience specific to an industry or nature of business, the role of industry experience on the growth and economic performance of entrepreneurial ventures as well as society. The presence of industry-related know-how is considered important in creating innovations when new product or process ideas result from the combination of intimate communication among network partners and the use of technology. Che, Zhu, and Xie (2004) has suggested human capital concept with a combination of employees competence, employees attitude and employees creativity.

Human capital is also defined as the stock of individual knowledge and talent in organization that includes know-how, capacities, competence, attitude, intellectual ability and creativity (Sandberg, 1986; Samad 2010). Rodrigues, Dorrego and Jordon, (2010)

classified human capital in a form of competencies such as skills, know-how and employee. According to Garvan, Morley and Collins, (2001) human capital consists of four key attributes: 1) flexibility and adaptability; 2) enhancement of individual competencies; 3) the development of organizational competencies and 4) individual employability.

Bontis, Dragonetti, Jacobsen and Roos (1999) defined human capital as representing the human factor in the organization - the combined intelligence, skills and expertise that gives the organization its distinctive character. Human capital in particular represents the individual stock of knowledge embedded in the firm's collective capability to extract the best solutions from its individual employees (Bontis, 1999, 2001). It is defined as the sum of the workers' skills, experience, capabilities, and tacit knowledge (Edvinsson and Malone, 1997).

In numerous studies, human capital is considered a critical factor for organizational performance (Colombo and Grilli, 2005). The relevant characteristics of human capital are education, experience and knowledge (Writh, Smart, and McMahan, 1995) allowing access to a broader range of opportunities (Davidsson and Honig, 2003). Other factors of human capital that have positive impact on performance include: the age of entrepreneur. (Chiliya and Lombard, 2012); Gender (Rosa; Carter and Hamilton, 1996); management skills (Learner and Almor, 2002); and entrepreneurs strength. A higher level of education is positively related to performance (Cooper, Gimeno-Gascon and woo, 1994; Gimeno, Folta, Cooper and Woo, 1997). Work experience, management experience and prior

entrepreneurial experience are related to firm activity (Dimov and Shepherd, 2005; Gimeno *et al.*, 1997). Hatch and Zweig (2000) consider that there is no clear pattern of cognitive orientation and behavior that ensures business success. The years of previous work experience have no significant impact on the growth of business (Bruderl and Preisendorfer, 2000). However, previous management experience and entrepreneurial experience positively influence the economic performance of new firms (Gimeno *et al.*, 1997). Human capital theory considers that knowledge brings greater intellectual skills to individuals, thus making their productivity and efficiency potential to develop activities.

Davidsson and Honig (2003) argue that formal education does not seem to be a determining factor of success throughout the business process or in terms of gestation of activities. The coordination of knowledge dispersed among different individuals is a distinctive capability of entrepreneurs that is related to their knowledge and skills learned through education and previous work experience.

Moreover, perceptions of risk and opportunities are influenced by the ability to accumulate new knowledge, which depends on the existence of stocks of explicit knowledge acquired in education institutions and implicit knowledge acquired through experience in a certain field (Cohen and Levinthal, 1990).

Davenport and Prusak (1998) add that human capital includes the intangible resources of abilities, effort, and time that workers bring to invest in their work. Human capital theory suggests that education or training raises the productivity of workers by imparting useful

knowledge and skills, hence, raising worker's future income by increasing their lifetime earnings.

2.7 Competitive Advantage

Competitive advantage includes significant competencies in a firm that are difficult for competitors to imitate, and when properly exploited, position a firm to deliver superior performance (Porter, 1985). In its simplest form, competitive advantage is determined by two firm strengths favorable costs or differentiated products (Porter, 1985). A more in-depth look at cost and differentiation influenced Porter (1985) to introduce the value chain as a way of evaluating all activities of the firm and how they interact to provide a broader perspective on how competitive advantage can be attained. Any strength or weakness of a firm is, in the long-run, a function of its effect on cost or differentiation (Porter, 1985). Several researchers have considered the construct of competitive advantage in the context of customers and competitors, competencies and other resources, and product offerings that result from knowledge.

Christiansen (1997) suggests that organizational resources and processes contribute to a superior competitive advantage. A firm uses its unique resources to create offerings that have superior value to customers (Ramaswami *et al.*, 2004). The resources used to develop market offerings include sources of competitive advantage (differentiation, sensing, and customer and competitor responsiveness) that can be exploited and enhanced by higher-order learning (Dickson, 1996; Hunt & Morgan, 1996; Ramaswami *et al.*

2004). The sources of competitive advantage construct of Ramaswami *et al.* (2004) was adopted for this study:

Responsiveness: Customer and Competitor, organizations with market insights are successful because they know why they succeeded in the past and they understand current structures, relationships, and motivation in their markets (Day, 1991). According to Day (1991) there are three critical and converging trends that explain the importance of learning to marketers: The rapid pace to change; the amount of an available information; and the need for organizations to be proactive in the development of timely and coherent strategies that address markets.

The notion of competitive advantage of Ramaswami (2004) is supported by Day and Wensley (1988). To provide management with a framework for diagnosing competitive superiority, Day and Wensley (1988) evaluate the current approaches and methods within an organizing framework that clarifies the nature of competitive advantage by looking at: (1) the merits of management judgments of strengths and weaknesses and how they compare with measures of market share; (2) comparisons of the relative size of resource commitments; and (3) customer comparisons of competitors on their purchase criteria. The Day and Wensley (1988) framework identifies two distinct approaches:

- Customer focused: Start with detailed analysis of customer benefits within end use segments and work backward from the customer to the company to identify the actions needed to improve performance.

- Competitor focused: Based on direct management comparisons.

Market oriented processes are considered necessary for the maintenance of competitive advantage but are not sufficient in and of themselves (Baker & Sinkula, 1999). The knowledge that comes with the combined power of generative and adaptive learning can provide the ability for a firm to be more innovative and appropriately reactive to competitive conditions (Baker & Sinkula, 1999). However, the existence of successful processes often becomes a barrier to open-minded inquiry and goal attainment. Mental models must be managed by an open-mindedness that considers and reconsiders assumptions about how an organization works (Senge, 1992; Sinkula *et al.*, 1997).

Differentiation: Differentiated products are the result of a myriad of competencies that enhance competitive advantage (Ramaswami, 2004). Many sources of competitive advantage include activities that companies must perform in order to compete, including order processing, meeting with customers, assembling products, and employee training. Porter (1985) adds that there is much to learn from thinking about a firm's stock of assets, but not in isolation. Inward looking companies would isolate activities from resource capabilities (Day, 1994a; Porter, 1985). The activities of the components of order processing, meeting with customers, assembling products, and employee training are the assets that facilitate a firm's competitive advantage (Porter, 1985).

Market sensing: Market-sensing is a process that actively acquires and distributes information about the needs and responses of the market, such as how it is segmented and

the intentions and abilities of competitors (Day, 1994a; Ramaswami, 2004). An organization that is adept at market-sensing can identify trends more effectively than competitors and better respond to customer needs and desires (Ramaswami, 2004).

Day (1994) suggests that a firm that is market driven has the ability to sense events and trends in their markets and act accordingly. Market driven firms capture the knowledge of organizational members across the spectrum, from front line sales to the Chief Executive Officer; including a learning process that asks relevant questions at the right time (Day, 1994a). A learning orientation is not complacent and never stops searching for ways to improve products, eliminate poor quality, and continually excel at customer service (Day, 1994a). The faster an organization can learn about their markets, while responding appropriately to that knowledge, the better they are positioned for competitive advantage (deGues, 1988; Senge, 1990; Slater & Narver, 1994a). Understanding a firm's activity assets will provide a basis for learning and exploiting strengths toward the achievement of performance goals.

2.8 Entrepreneurial Orientation and Performance

The study examine the influence of entrepreneurial orientation on small and medium enterprises performance in Nigeria.

Shehu and Mahmood (2014) studied the influence of EO and business environment and performance of SMEs in Nigeria. The sample was drawn from SMEs in Nigeria, using a questionnaire. The findings of their study shows a positive link between EO and firm

performance. However, the relationship between business environment and firm performance was not supported. The finding of the study indicated that external environment dimensions was not significant as moderator on the relationship between business model and business performance. The sample of the study is too large as PLS analysis does not require a large sampling. the study has only considered SMEs operating in Kano and was collect data once. They recommended the use of other statistical packages in the future.

Mahmood and Hanafi (2013) investigated the influence of competitive advantage on entrepreneurial orientation and performance of women-owned SMEs in Malaysia, using mail survey questionnaire and regression method for data analysis. The study only covers women SMEs owner/managers carefully chosen from a sampling frame of registered SMEs in Malaysia. The finding of the study indicated significant positive relationship between EO and business performance. These findings may not be generalise as it focus to the women owner/managers of SMEs entrepreneurial orientation and competitive advantage and experience low response with the mail survey. There is also a problem of non-response bias which is related to a survey method of data. They recommend future research to benefit in the variability of methodological approach in the data collection

Idar and Mahmood (2013) investigated entrepreneurial and market orientation relationship to business performance from the sample of SMEs, using survey questionnaire and regression method. The study proposed only quantitative analysis in which EO and competitive advantage are the key factors of SMEs success. The findings shows a

significant relationship between entrepreneurial orientation and performance.

In a similar study, Al-swidi and Mahmood (2012) in which they study entrepreneurial orientation, total quality management and business performance. The sample was drawn from bank managers using questionnaire and regression method for data analysis. The results show a positive association among EO, TQM and business performance in banking industry. The researcher used self-administered questionnaire which have the probability of bias.

Smart and Conant, (2011) analyzed 599 small business firms in the US and found that firms with a high degree of EO have a stronger impact on organizational performance than firms with a medium level of EO. A medium level of EO affects performance more strongly than a low level of EO. Their results suggest that entrepreneurs with a high level of EO are more effective in making strategic decision and allocating resources, which result in better organizational performance.

Fairoz *et al.*, (2010) used the innovativeness, proactiveness and risk-taking factors in their study to examine the degree of EO and its effect on the firm performance of small and medium-scale enterprises in Hambantota District Sri Lanka (HDSL). This study concluded that there is a moderate degree of EO in the majority of SMEs in HDSL. There is a positive significant relationship between proactiveness, innovativeness, risk taking and overall EO on the one hand and market share growth and overall firm performance on the other hand. They also reported that sales growth, profit and market share were

higher for firms that with high EO than for those with low EO. The study focus only on Performance of manufacturing Small and Medium Scale Enterprises of Hambantota District Sri Lanka with only 25 sample. Multiple regression analysis was used to determine the relationship among EO dimensions and business performance variables which is in contrast to the current study.

Similarly, Devis, Bell and Krieser (2010) studied the effect of top manager's prestige, structural and expert power on the relationship between EO and firm performance, using survey questionnaire and regression methods for data analysis. The sample of the study is small and consist of former executive and professional MBA students. The result shows a strong significant positive relationship between EO and a firm performance. The sample represented in the study have a wide number of industries not target a specific industry allowing only broad conclusions about the overall effect of EO and the variables studied thereby making it very difficult for the result of the study to be generalize and apply to a particular industry. Equally, Lan and Wu (2010) examined whether EO would affect internationalization strategies of enterprises and success, using a survey interview of two hundred enterprises with regression methods for data analysis. The findings shows that Entrepreneurial orientation is positively related to the internationalization and performance.

Similarly, Clercq, Dimov and Thongpanl (2010) studied two hundred and thirty two Canadian established firms, there study reported a significant association between entrepreneurial orientation and performance. Rauch *et al.*, (2009) in supporting the

contention that EO is positively related to organizational performance. Specifically, these investigators confirmed that top managers with a high tolerance of risk, those who favour innovation and those who possess a high level of proactiveness positively influence organizational performance.

According to Awang, *et al.*, (2009) in their study on the relationship between entrepreneurial orientation and performance of Bumiputera Malaysians SMEs. The sample two hundred and ten SMEs was drawn, using survey questionnaire. The findings of their study showed a significant link between EO and business performance. Merlo and Auh (2009) studied the effect of EO, MO and marketing sub-unit influence and the effect of Entrepreneurial Orientation, Market Orientation on firm performance. A sample of six hundred small business was drawn from Australian manufacturing SMEs, Using survey questionnaire as a study instrument and regression methods for data analysis. The findings indicated that the greater the level of EO, the more positive relationship between MO and market subunit influence, and therefore, to overall performance.

Richard, Wu and Chadwick (2009) studied the impact of EO and business performance of five hundred and seventy-nine banks in US. Their study indicated a strong and positive relationship between EO and firm performance.

A study by Lee *et al.*, (2001) on 137 Korean technology start-up companies revealed that EO provides weak support for start-up companies' performance. They have suggested that it may require longer than two years for an EO to enhance the performance of an

organization significantly. This finding is somewhat correlated with the study conducted by Wiklund (1999) which found that EO has a long-term effect on performance. The author suggested that it might be valuable for small firms to invest in EO since it pays off, especially in the long term.

Covin and Slevin (1989, 1991) established that EO is positively associated to firm performance and that an entrepreneurial posture was best positively associated to business performance. Miller and Bromiley (1990) also established that EO required an influence on general business performance. Also, Zahra (1991) in a study reports a positive link among entrepreneurial orientation and organization growth and profitability. Wiklund (1999) ratifies that there is positive association among EO and business performance.

In contrast, Filser and Eggers (2014) inspected EO and business performance relationship using multiple regression method in data analysis. The result shows a mixed finding. Innovativeness and risk taking to business performance was found to be positive, while negative relationship was found between proactiveness relationship to firm performance

Ambad and Abdul Wahab (2013) used the sample of large firms in their study on entrepreneurial orientation in Malaysia. Using partial least square for the data analysis. The findings shows a mixed result as innovativeness and risk taking are positively related to performance, whereas, proactiveness was negatively affect the business performance.

Anderson (2010) inspected the sample of one hundred and seventy two manufacturing small and medium enterprise from Sweden to find out the relationship between EO and

performance. He declared that earlier studies were short of considering other factors EO and business performance relationship which include survival bias, common method biases as well as perceptual performance. The finding of the study shows a negative relationship between EO to business performance in terms of growth and profitability.

Frank, Kessler and Fink (2010) examine the EO and business performance relationship. The sample of eighty-five SMEs were chosen from using survey questionnaire from electric and electronic industry. The results indicate a low correlation between EO and firms performance.

Runyan, Droge and Swinney (2008) inspected a sample of two hundred and sixty seven SMEs owners. Using structural equation modeling for data analysis in their study which examine the relationship between EO and small business orientation to business performance. The findings of the study show the mixed result. EO predicted the performance of newly established firms; whereas EO is found to predict the performance of old firms.

Tang, *et al.*, (2008) study entrepreneurial orientation and business performance relationship among Chinese ventures. The findings indicate a reversed U-shape relationship between EO and business performance.

Based on the above arguments, this study seeks to propose the following hypothesis:

H1: There is a significant relationship between entrepreneurial orientation and SME performance in Nigeria,

2.9 Social Network and Business Performance

Stam, Arzlanian, & Elfring, (2014) in a meta-analytic method study to synthesize empirical findings on the relationship between entrepreneurs personal networks and small firm performance using 61 independent samples. Their findings indicate a significant positive relationship between social capital and performance. Also, they identify new moderators affecting the relationship between social capital and SMEs performance. Nevertheless, the study findings are limited to surviving firms there by overlooked the failed firms. Also, many studies in the analysis have employed cross-sectional data such that the possibility of reverse causality cannot be ruled out.

Nangoli, Ahimbisibwe, Namagembe, and Bashir, (2013) study the extent to which social networks influences the commitment of project management stakeholders in Uganda. They adopt quantitative, cross-sectional study with ninety-two sample of individual project conducted by Uganda Banks. The results show that social network elements such as network degree and network transitivity are significant predictor of stakeholder project commitment. The study limited to only human dimension of project management by establishing the degree to which networks impact the commitment of project stakeholders.

Surin & Wahab, (2013) investigate the impact of social network on business performance in the Malaysian established manufacturing SMEs. Using a stratified sampling of two

hundred and twenty-six respondent of manufacturing SMEs in Malaysia. The sample of the study data were collected through mail questionnaire to be used for data analysis. The findings reveals mixed results that: network centrality is positively and significantly affect business performance, and network density and family members networking have positively but do not have significant effect on business performance. The study is limited to manufacturing companies and established firms. The study is limited to manufacturing companies and established firms.

Boso, Story, and Cadogan, (2013), conducted a study on the Entrepreneurial orientation, market orientation, network ties, and performance of entrepreneurial firms in a developing economy. With the sample of two hundred and twenty-nine respondents from entrepreneurial firms operating in multi-industry in Ghana. The findings of the study indicate form of social network ties and business network ties, further maximize the performance benefits. In addition, the development of social and business network ties increases the impact of complementary strategic orientations on firm performance among entrepreneurial organizations operating in a developing economy. These findings offer interesting extensions to the understanding of social network literatures. The study cannot be generalized to the entire developing countries because all the respondent are registered companies in Ghana other developing countries may possess distinctive and varied background elements that allow for further insights and theory development.

Watson, (2012) studied on the association between networking gender differences with firm performance. He examined the sample of 2,919 male- and 181 female-controlled

SMEs (with at least one employee) over a three-year period. The findings shows little difference in the networks accessed by male and female SME. The results also indicate that several formal and informal networks are positively associated with firm survival but only formal networks appear to be associated with growth. However, this did not consider owners after education, experience, industry, age and size.

Fatoki, (2011), conducted a study on the impact of human, social and financial capital on the performance of Small and Medium-Sized Enterprises (SMEs) in South Africa. Objective and subjective methods were used to measure performance. Data was collected through the use of self-administered questionnaire in a survey. Also, data was analyze through descriptive statistics, chi square, and Pearson correlation and regression analysis. The results indicate that there is a significant positive relationship between human, social and financial capital and the performance of SME. The methodology used in collecting data is self-administered to SMEs, which have the possibility of bias as the researcher will cover those that are convenient thereby neglecting the other. Findings cannot be generalized as the study covers only SMEs in King Williams Town and Port Elizabeth in Easter Cape Town province in South Africa no justification given.

Lau and Bruton, (2011) in their study on the interaction between social network ties and corporate development strategy in Chinese and Russian technology entrepreneurs. There findings show a positive interaction between social network ties, corporate strategy and sales performance in Chinese and Russian high technology firms. The findings are focused on highly technology entrepreneurial ventures therefore, cannot be generalized.

Also, Watson, (2007) investigated the relationship between networking and SMEs performance for establish firms using the sample of five thousand and twenty seven SMEs in Australia, the findings shows a mixed result. The findings indicate that (after allowing for age, industry and size of business) networking appears to be significantly positively related with firm survival and, to a lesser extent, growth, but not ROE. Further, the results with respect to survival and growth suggest there might be some optimum level of resources that an owner should devote to networking. For example, accessing more than six networks during a year is likely to be counter-productive. Similarly, accessing any individual network on more than three occasions during a year is also likely to be counter-productive. The results also indicate that both formal and informal networks are associated with firm survival, but that only formal networks are associated with growth (and neither formal nor informal networks are associated with ROE).

According to Cooper's examination of research on networks, the extent and number of social network ties are positively related to company performance (Hitt, Ireland, Camp, & Sexton, 2002). However, empirical results are not always clear about the influence of a firm's resources and networks on its international performance. A meta- analysis conducted by Manesh (2011) indicated a positive relationship between social networks and a company's international performance.

In contrast, Musteen, Francis, and Datta (2010) Conducted study on the influence of international networks on internationalization speed and performance of Czech SMEs, using the sample of 155 CEOs of manufacturing SMEs, they found that regular reliance

on individual contact deters a company's performance. There may be possibility of present of respondent bias because the study relies on recollections of entrepreneurial networking activities recall bias. The sample was limited to SMEs in the Czech manufacturing sector and may not be generalize to other context.

Naudé, *et al.*, (2014) investigate the influence of network on the performance of SMEs in Iran. The Data was collected from 227 CEOs of small Iranian information technology companies using a dual methodology that has not been adopted before. To test hypotheses the combined structural equation modeling and social network analysis were use. The outcomes show that emotional intelligence drives entrepreneurial style, network structure and external networking behavior. SME performance is influenced by both network structure and external networking behavior. In addition, the findings show that entrepreneurial style does not influence external networking behavior. Base on this argument, this study seeks to propose the following hypothesis:

H2: There is significant relationship between social network and the performance of SMEs in Nigeria.

2.10 Human Capital as Moderator

Considerable studies that examined entrepreneurship orientation, social network and performance relationship have led to controversial results between positive relationship of EO, social network and firm's performance as well as negative relationship of EO, social network and performance. Along these lines, moderator variables are typically

introduced as results of an unexpectedly weak or contradictory relationship between a predictor and a criterion variable in order to explain the values of that circumstances that strengthen or weaken the association (Baron & Kenny, 1986).

Surin, *et al.*, (2014) investigate the influence of HC on the association between social network and business performance. Data was collected from two hundred and twenty six respondent from owners-managers in manufacturing SME's in Malaysia using stratified sampling method. The hierarchical moderated regression method was used in analyzing the moderator, the findings shows mixed results. That entrepreneurs age moderate the association among network centrality and non-financial business performance, but not to financial business performance; gender serve as a moderating variable between network size and financial business performance relationship, but not to non-financial business performance; no moderating influence of the age of entrepreneur on the association among network size and both financial and non-financial commercial performance and that there is not at all moderating influence of gender on the association among network centrality and financial and non-financial organization performance.

Augusto Felício, Couto, & Caiado, (2014) evaluate the human capital and social capital and performance of small and medium enterprises. The sample of one hundred and ninety nine small and medium firms from Portuguese was used using the structural modeling approach. The findings shows that human capital affects social capital and organizational performance is strongly influenced by human capital.

Lin, Huang, Du, & Lin, (2012) in their study on empirical examination of human capital disclosure and organizational performance. A content analysis of annual reports and hierarchical regression of six hundred and sixty public listed companies in Taiwan within the year 2006 were used. The findings shows that human capital disclosure have positive impacts on organizational performance.

Samad, (2013) in her study on assessing the contribution of human capital on business performance, examine the relationship between human capital and performance. A stratified sampling method was to obtain a data of three hundred and ninety managerial staff of logistic companies in Malaysia and the data were analyse using SPSS version 20. The findings indicates that human capital aspects are related and contribute significantly to business performance.

Also, Unger, Rauch, Frese, & Rosenbusch, (2011) in a meta-analysis review of human capital and entrepreneurial success from the result of seventy independent samples. The findings indicates a significant relationship between human capital and entrepreneurial success.

Gates & Langevin, (2010) studied human capital measures, strategy and organization performance with the aim to identify human capital measures contents, relations to strategy and its influence on performance, the data was collected using quantitative analysis of survey questionnaire from one hundred and four HR executives and qualitative using interview. The findings shows that human capital influences organizational

performance.

Alpkan, Bulut, Gunday, Ulusoy, & Kilic, (2010) in their study on empirical examination of organizational support for entrepreneurship and its interaction with human capital to enhance innovative performance. The sample of one hundred and eighty four manufacturing firms in turkey. The findings indicates the role of human capital as important driver of innovative performance.

Shrader and Siegel (2007) empirical study on high-tech ventures imply that for small, technology-based new ventures, human capital in the form of technological experience appears to be the most important determinant of the success of a differentiation strategy. Again, in a Federico, Kantis, Rialp, and Rialp, (2009) study they found that Human capital contributes to the internationalization performance of young firms in Latin America. As for the direct effects of Human capital on innovative performance.

Dakhli and De Clercq (2004) find strong support for the positive relationship between HC and innovation in their study of secondary data on the cross-country differences of innovativeness. They attribute this relationship to the knowledge-intensive nature of both HC and innovation variables. Based on an empirical study conducted in Denmark, Anker (2006) indicates the importance of updating the skills of the employees especially in the high-tech sectors and concludes that HC increases the ability to innovate. Wu, Lin, and Hsu, (2007) in a more recent empirical study in Taiwan confirm that HC has a positive effect on innovative performance; Marvel and Lumpkin (2007) find similarly a positive

association between radical innovations done by the technology entrepreneurs operating within university-affiliated incubators and their level of HC measured in the form of formal education and knowledge of technology. Finally, Allen, Link, and Rosenbaum (2007) conclude that HC increases entrepreneurial research activities leading to new patents. Based on the previous literature discussion, we propose the moderating role of human capital. Therefore, beside its direct effect on firm performance, HC as a precious resource may also exert a facilitator role in the attempts to form a suitable climate to produce higher organizational performance.

Hitt *et al.*, (2001) mentioning that firm resources and strategy interact to produce positive returns, conclude that HC moderates the strategy and performance relationship. Similarly, Selvarajan *et al.*, (2007) confirm this moderator role in a different setting. Hayton and Zahra (2005) find in an empirical study on high technology new ventures in the USA that the relationship between venturing activities and innovation is moderated by the HC diversity of the top management teams. More specifically, Subramaniam and Youndt (2005) claim that the HC interacting with social capital increases radical innovative capability. Similar interaction effects of HC together with entrepreneurship are mentioned not only in the organizational innovativeness literature but also in the regional development studies. The previous literature on HC, leads us to purport that HC may play a similar moderator role in the relationship between OS and innovative performance. Following the previously mentioned descriptive and empirical studies, we may deduce

that HC is one of the important drivers of various aspects of firm performance. Therefore, the following hypothesis is formulated:

H3: Human capital moderates the relationship between entrepreneurial orientation and SMEs performance in Nigeria.

H4: Human capital moderates the relationship between social network and SMEs performance in Nigeria.

2.11 Competitive Advantage as a Mediator

Studies have identified a positive relationship between competitive advantage and performance. According to resource-based theory of the firm, competitive advantage only arises from the use of scarce, intangible and firm-specific assets (Spender, 1996). Tovstiga and Tulugurova (2009) confirm that the firm's internal resource base is a determining factor of competitive advantage in small and medium firms. The literature further affirms that the firm's competitive advantage and performance are largely influenced by the entrepreneurial behavior of the firm (Wiklund & Shepherd, 2003; Zahra & Covin, 1995).

Mahmood, & Norshafizah, (2013), conducted a study on the relationship between Entrepreneurial orientation and performance of women owned SME's in Malaysia, with moderating effect of competitive advantage. Data was collected from one hundred and sixty five respondents using mail survey questionnaire selected from a sampling frame of

registered SMEs. Findings shows a partial mediation of competitive advantage between entrepreneur's orientation and performance.

Martinette & Obenchain-leeson, (2012) examines the influence of learning orientation on business performance in the context of pure service. The conceptual framework used in this research has been drawn from marketing, finance, and organizational behavior theory. Specifically, relationships related to learning orientation, sources of competitive advantage and business performance have been identified between learning orientation and business performance. A survey-based research methodology was used. The findings of this study suggested that there is relationship between competitive advantage and business performance and competitive advantage moderates the relationship between learning orientation and business performance in pure service and service-reliant organizations.

Jeen, Hishamuddin, and Gerald (2010) assessed SMEs competitive advantage and the influence of entrepreneurship. The data collected for this study was 356 responses from Malaysia. The data was examined with multiple regression and the results signify that entrepreneurship and luck play a major role in influencing the CA of SMEs. The outcomes also provided a significant support in the formulation of competitive advantage Model among SMEs.

López-Gamero, Molina-Azorín, & Claver-Cortés, (2009) conducted a study on the whole relationship between environmental variables and firm performance with Competitive

advantage and firm resources as mediator variables. The findings shows that a firm's resources and competitive advantage act as mediator variables between environmental protection and financial performance relationship.

Researchers (James & Brett, 1984; Stolzenberg, 1979) have suggested that a causal relationship can be moderated or influenced. Organizations need to learn what customer's desire or need so that they can understand what it takes to create superior value and to have a competitive advantage in the marketplace (Hunt & Morgan, 1996; Ramaswami *et al.*, 2004).

However, there is still limited empirical research investigating the mediating effect of competitive advantage on the entrepreneurial orientation, social network and business performance relationship. Based on this paucity and previous arguments, this study seeks to propose the following hypothesis:

H5: Sources of competitive advantage mediates the relationship between entrepreneurial orientation and SMEs performance in Nigeria.

H6: Sources of competitive advantage mediates the relationship between social network and SMEs performance in Nigeria.

2.12 Theoretical Underpinning

The major concern in this study is largely on how firms generate and achieve their performance. There are numerous theoretical approaches/methods for studying available resources and firm performance. Therefore, the RBV theory was adopted in this study to explain the relationship between entrepreneurial orientation as the independent variable, human capital as moderator, competitive advantage as mediator and firm performance. The social network Theory and resource dependency Theory are also adopted to support the RBV in explaining the relationship between social network as independent variable and firm performance. This section covers the underlying theories used as the basis for the study. Resource Based-View (RBV) Resource Dependency Theory (RDT) and Social Network Theory (SNT) were employed as underpinning theory for this study.

This study placed the resource-based view (RBV) of the organization brings about theoretical foundation for the investigation of entrepreneurial orientation, social network, human capital and competitive advantage and the relative effect on organizational performance. The RBV asserts that firms possess competitive advantage and lead superior long-term performance through development of resources that are diversely distributed, peculiar, non-substitute and hard to imitate (Barney, 1991; Das & Teng, 2000; Barney, Ketchen & Wright, 2011, Barney, 2001). RBV proposed that resources (assets, routines, skills, orientations, information, capabilities, knowledge, processes) possessed and controlled by the firms which facilitates them to execute strategies to enhance performance and competitiveness (Barney, 1991; Barney, *et al.*, 2011; Wade & Hulland,

2004; Wernerfelt, 1984; Alvarez & Barney, 2007; Penrose, 1959). It explains how valuable and rare resources lead to creation of firm's competitive advantage. That is competitive advantage can be maintain over a long period of time to the point that the organization is able to safeguard its resources against imitation, transfer or substitution. Altogether, many empirical studies using the theory have strongly supported the resource-based view because it gives explanations on the question of what contributes toward firm success, theorizes greater emphasis on every available organizational internal resources and capabilities compared to other theories (Das & Teng, 2000; Hitt & Ireland, 2002; Rastogi, 2000). There is no one acceptable definition of RVB, therefore the term capabilities and resources will be used interchangeably (Christene & Overdorf, 2000; Gold, Malhotra & Segars, 2001; Ringim, 2012). Resource base view defines resources as assets and process as capability. According to Amit and Schoemaker (1993) company's assets that are processed thought ownership and control are referred to as resources, while ability to combine resources and adequately utilize them is referred to as capability.

Most of traditional competitive strategy models for example Michael Porter's five forces model do not give emphasis on internal side of the organization, but emphases on the firm's external competitive environment. In contrary, the RBV explained the basic need for a company to fit between its internal capabilities and the external market context in which a company operates (Barney, 1991). RBV Views are grounded in an organization's internal environment, in relations to its capabilities and resources, which is more critical

to the determination of strategic action than is the external environment contrary to the Input/output Model (I/O model).

Resource based perspective is the centrality of the venture's capabilities in clarifying the firm's performance. Resources have been established to be vital antecedents to products and ultimately to performance (Wernerfelt, 1984). The RBV explains the relationship between the firm resources and sustenance of modest advantage of superior firm performance (Barney, 1991; Fahy, 2000; Ringim, 2012). Many researchers have classified resources into different parts, for example, Milss, Platts and Bourne (2003) classified resources into tangible; and intangible. Also, Fahy (2000) classified resources as tangible, intangible and capabilities. Both are harnessed into strengths and weaknesses by businesses and thus lead to competitive advantage. Based on the view discourse, the resources and capabilities of the firm as an underlying factor of performance. RBV will be suitable theory to use in this study.

The second theory, which is being frequently referred to as the resource dependency theory (RDT). This theory was introduced by Pfeffer and Salancik in 1978. It suggests that those entrepreneurs facing problem regarding shortage of resources will seek to obtain resources through the networks being established with other contacts. These contacts consist of suppliers, banks, government agencies, competitors, creditors, relatives and friends (Barringer & Harrison, 2000; Premaratne, 2001). These form the basis for networks of the entrepreneurs and key components for the success of the business.

It is important to distinguish the RDT from the Resource-based Theory (RBT). RDT is more appropriate if one exclusively concentrates on external sources for an organization to survive and prosper (Barney, 1996) whereas RBT is more suitable for one that focuses on the internal resource of a firm (Barney, 1996). For this study, the researcher refers more on the RDT as the research concentrates on the number of resources as the tested variable.

The RDT suggests that entrepreneur requires a lot of help and resources to start-up and run a business. The resources needed mainly focus on information, capital (money), moral support and infrastructure facilities. As not all entrepreneurs are able to accumulate and obtain the required resources, this forces the entrepreneurs to search for the resources through other people. If the entrepreneur has developed a good relationship with people around him or her, then the chances to access the resources is higher. The people or actors that could provide the valuable resources include family members, friends, business associates, banks, professionals' institutions and government agencies.

SNT theory explains how the social structure of relationships around a person, a group, or an organization affects people behaviors (Barnes, 1954). It concentrates on the relationship between people, rather than on people's characteristics and attributes. The strength of relationship between the owner-manager with other people and parties such as suppliers, friends, customers, government agencies, trade organizations and social organizations determines the resources that they are able to access. Whereas the institutional theory highlighted by Scott (2004) stressed on the importance of owner-

managers in managing the institutional network which involves parties of the government agencies, trade organizations and social organizations in their business environment. The institutional relationship allows the owner-managers to access the resources in order to resolve the problems that are faced by the enterprises.

This theory is important, as networking activities are beneficial to entrepreneurship. Previous literatures claim that those entrepreneurs who are able to establish relationship with other contacts will facilitate them to access and receive support and resources (Hansen, 1995; Jenssen & Koenig, 2002; Premaratne, 2001; Renzulli *et al.*, 2000). The theory suggests that an entrepreneur should know how to develop, manage and maintain their relationship with others in order to make sure the contacts will provide the external resources which are important for business formation, growth and success (Jarillo, 1989; Ostgaard & Birley, 1996; Zhao & Aram, 1995).

SNT offers a framework to study, analyze and evaluate the relational dimensions or structural and interactional of networks. Much of SNT owes its origin to the fields of sociology and anthropology. The essence of SNT is relationships. Mitchell (1969, p. 2) defines SNT as a specific set of linkages among a defined set of persons, with the additional property that the characteristics of these linkages as a whole maybe used to interpret the social behavior of the persons involved. This definition is important, in terms of this study, since it lures reference to the significance of links and associations with individuals in all social situations and networks. SNT, as its core, postulates that small business owners are the most significant entities within a network. Mitchell (1969)

identified two distinct types of dimensions in networks: structural dimensions of anchorage, density, reachability and range; and interactional dimensions such as content, intensity, frequency, durability and direction. The small business owner is surrounded in social relations which are relational not atomistic (Gulati *et al.*, 2000). In fact, Charan (1991) provided evidence that effective relationships can help create and potentially embrace competitive advantage through social embeddedness. Networks, therefore, developed the lenses through which industries build relations (Moore & Manning, 2008).

2.13 Theoretical Framework.

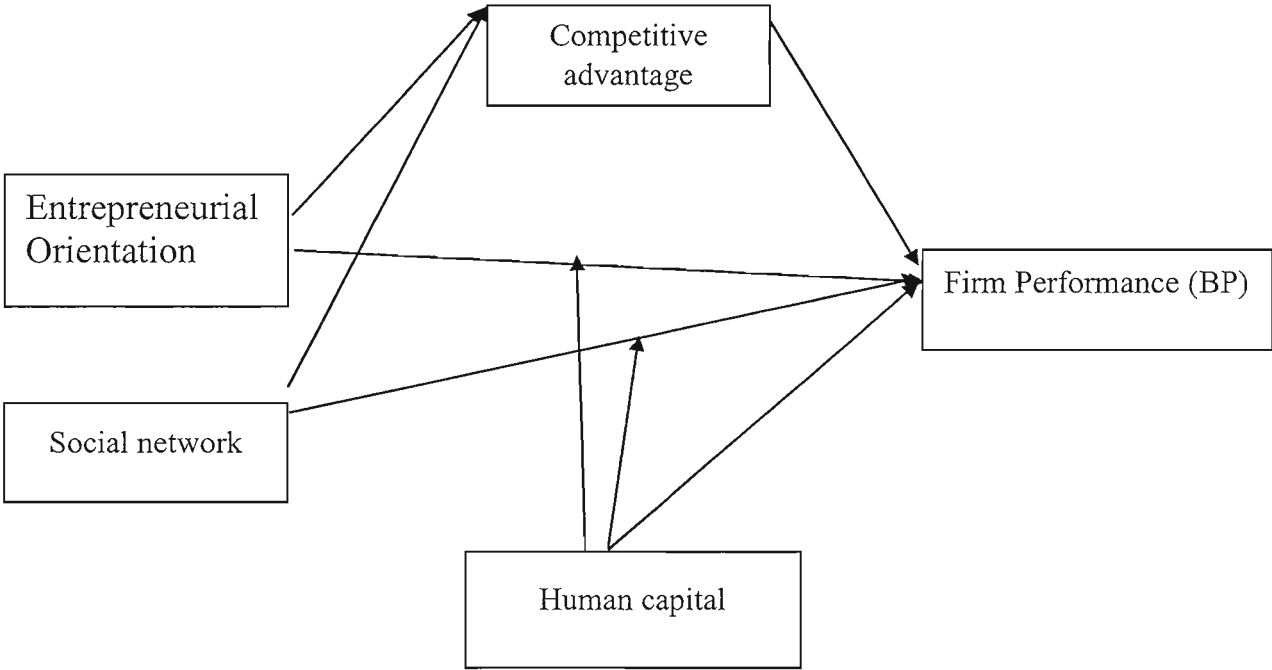


Figure 3.1
Theoretical framework

Based on the literature reviewed and suggestions by several studies, this study has developed a framework to investigate the moderating role of human capital and mediating role of competitive advantage on the relationship between entrepreneurial orientation, social network, and performance of SMEs in Nigeria. The research framework has two independent variables that represent the firm’s valuable resources, namely entrepreneurial orientation and social network, firm performance is the dependent variable, while human capital is the moderating variable and competitive advantage is the mediating variable. The framework has developed seven hypotheses in an attempt to answer and determine a set of seven (10) research questions and objectives. To the best of research’s knowledge, no previous research examines the linkages of these valuable attributes in one research framework. The theoretical framework of the study is illustrated above by figure 2.2.

Table 2.2
Summary of Research Hypotheses, Research Questions, and Research objectives.

Hypotheses	Research Questions	Research Objectives
H1	1. Is there significant relationship between entrepreneurial orientation and firm performance.	1. To examine the relationship between Entrepreneurial orientation and firm performance
H2	2. Is there significant relationship between social network and firm performance?	2. To examine the relationship between social network and firm performance.

H3	3. Is there significant relationship between human capital and firm performance?	3. To examine the relationship between human capital and firm performance.
H4	4. Does human capital moderate the relationship between entrepreneurial orientation and firm performance?	4. To determine whether human capital moderates the relationship between entrepreneurial orientation and firm performance.
H5	5. Does human capital moderate the relationship between social network and firm performance?	5. To determine whether human capital moderates the relationship between social network and firm performance.
H6	6. Does competitive advantage mediate the relationship between entrepreneurial orientation and firm performance?	6. To determine whether competitive advantage mediates the relationship between entrepreneurial orientation and firm performance.
H7	7. Does competitive advantage mediate the relationship between social network and firm performance?	7. To determine whether competitive advantage mediates the relationship between social network and firm performance.

2.14 Chapter Summary

Chapter Two reviewed the literature on SMEs. It also reviewed the past and existing empirical works on the four variables of study, namely; entrepreneurial orientation, social network, competitive advantage and firm performance. These variables were reviewed and discussed in order to provide a better explanation of the framework of study, and led to the formulation of hypotheses to answer the research questions. Theoretical underpinning which is RBV as supporting theory were seen and the possible relationship between the theories with the entire constructs was establish. The research methodology to be employ to carry out this study is discussed in the following Chapter Three.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

The study aimed to examine the associations between entrepreneurial orientation, social network, human capital, competitive advantage, and performance of SMEs in Nigeria. This chapter presents the plan according to how the study would be conducted. The chapter also explains the research framework and discusses the research design, population of the study, sampling size and procedures, instrumentation, validity and reliability of the research instruments, data collection, and methods of data analysis used to test the hypotheses.

3.2 Research Design

Research design has been defined as a plan of techniques to follow in answering the objective or hypothesis of the research (McDaniel & Gates, 2007). These techniques offer direction for choosing data collection methods and procedures of hypothesis testing. Research design according to Cooper and Schindler, (2001) is formulated because of research question and comprises details procedures for all activities of the research. Cresswell (2008) identified three types of research design used to conduct research: quantitative, qualitative, or mixed mode. Quantitative research was used to describe tendency or trends when associations among variables are examined. The variables can

be measured by instruments that enable data to be analyzed with statistical procedures (Creswell, 2008). On the other hand, Creswell, (2008) explained that qualitative research is use to discover social influences that acquire a detailed understanding of an events. While mixed mode research is an approach that combined both qualitative and quantitative methods in the same study (Creswell, 2008).

According to Zikmud (2000, 2010) research design can classified in to three main categories that include survey/non-experimental design (consists of questionnaire and interviews); experimental research design (carried out in laboratory) and historical research design (which explores secondary information and observation). This study adopts survey design where, researcher influence only measurements of the study but does not interfere with the settings of the research and does not have any control over predictors variables that control their effects on dependent variable.

The study focused on describing SMEs in Kano State, the northern part of Nigeria as the characteristics of the population. According to Sekaran and Bougie, (2010) descriptive design is undertaken in order to describe the features of the concerned variable in a given circumstance. The survey method was adopted to achieve the aim of the study, since the study focused on the performance of SMEs. Furthermore, the survey research employed questionnaires to have responses from the respondents (Zikmund, 1991). The data collected enable the investigator to ascertain patterns in the data and relationship between the variables and this provided a basis for a formulation of explanations and theories, and for attaining the research objectives (Fowler, 1988). The research adopted quantitative

method for this study; this method is adopted because the aim is to determine the effect on each variable on another. It also allows results generalization to the entire population as a result of vast sample population (Malhotra, 2010; Gelo *et al.*, 2008; McDaniel and Gates, 2007). Another advantage of quantitative method is that the researcher will be aware in advance the content to be studied and is generally uncertain about the study structure (Hair, Black, Babin, Anderson, & Tatham, 2006; Mohd. Noor, 2011). Quantitative approach decides before and after results and confirms hypotheses by testing theory and all together able to clarify and predict measured variables and phenomena (Leedy & Ormrod, 2005).

This study takes the form of cross-sectional design, which involves collection of data/information from any given sample/population at once or at a one point in time in order to realize the objective of the study (Cavana, Dalahaye & Sekaran, 2001; Bichi 2004). This method of the study is believed to be the most appropriate as it would limit non-responsiveness of respondents, less time consuming, and would be less cost effective to undertake (Sekaran, 2003; Churchill, 1995; Wilson, 2010).

Survey method was employed in this study because it is the best method of obtaining information from people in their natural environment (Graziano & Raulin, 2004). Additionally, it is considered as the best method of obtaining information on personal and social facts and beliefs (Babbie, 2005; 2010). Cooper and Schindler (2006) argued that, survey method is advantageous because it gives emphasis on uniformity and standardization, efficiency and cost effective, accuracy and reliability.

3.3 Population and sample size

3.3.1 Population

Population is defined as members of a well-defined class of people, events and/or objectives (Ary, Jacobs & Razavich, 2002). It is made-up of a collection of information whose properties are to be assessed in a specified research situation (Sekaran & Bougie, 2010). The population also refers to the total group of individuals, events/things of concern that the investigator desires to study (Sekaran, 2000). Therefore, population is the universe of entities from which a sample is selected, as it consists of all units such as individual, households, or organizations to which one desires to generalize survey results (Dillman *et al.*, 2007, p. 42). Cresswell (2012) described population as a group of individuals who have the same features and other characteristics that the researcher can identify and study. These study population comprises all SME's firms in Kano State, Nigeria based on the SMEDAN (2013), data that comprises 8,286 in Kano state.

Sampling frame can be defined as the sample of units in which information is to be achieved (Churchill, 1999) and it discusses the entire number of items in the population from which a sample can be generated (Bryman, 2007). Nevertheless, a good sampling frame is characterized by its ability to attend to a certain number of conditions such as being complete and up-to-date; not including multiple entries of population members; having information about each unit that would be used to stratify the sample, and containing a list of members of the well-defined population (Hagu & Harris, 1993). The

researcher used the data from SMEDAN in order to have a complete and updated sampling frame. This study requires as sample all the small and medium sized firms in Kano state based on the SMEDAN (2012) data. OK. Thank you. Dr.

The use of all SMEs in all industries is because of the data available from the SMEDAN which contains the population of SMEs in all Sectors and to reduce bias to the barest minimum. This approach was also used in order to ensure that the sample used in the study was a true and fair representative of the population of SMEs in Nigeria. Given the nation-wide spread of the SMEs and the potential salutary impact a vibrant SME sub-sector is expected to have on the national economic growth and development, absolute care and effort were exercised in the selection of the population and sample for this study.

3.3.2 Sample Size

Sample can be defined as a subset of the population available for selection in the process of sampling or a sub collection picked from the population of interest. Its represents a segment out of total population, which are selected from the population. According to Sekaran & Bougies, (2010) the reason for sampling includes, data collection and information is impossible to be collected from entire population; studies are likely to produce reliable and better result using sample relatively than the entire population; and also reduce fatigue and error in data collection.

A systematic random sampling technique was employed in this study, to enable the researcher to generalize to the population (Bryman & Bell, 2003). Creswell (2003)

recommended choosing a random sample where each individual in population has the same chance of being selected. The emphasis in selecting a random sampling is that, it allow the researcher to adopt the sample features near the population characteristics (Leedy & Ormrod, 2005).

The size of the sample should be sufficient to the study by being adequate to estimate the features of the population suitably and offer a reliable outcome (McMillan & Schumacher, 2001). The sample size ought to be suitably broad to assess the characteristics of the population adequately to deliver realistic outcomes. As suggested by Sekaran (2005) the guiding principle developed by Krijcie and Morgan (1970) for sample size was adopted. Based on SMEDAN (2013) report there are 8,286 SMEs in Kano state. Therefore, according to Krijcie and Morgan sample determination table, 368 SMEs were selected to serve as the sample size intended for this research. Nevertheless, the size of the sample was multiplied by two to minimize error in sampling and to take care of nonresponse rate issue (Hair, Wolfinbarger & Ortinall 2008). Hence, 736 was selected as the total number of questionnaires to administer. Similarly, Alrech and Settle (1995) stated that, the lower the sample size the greater the tendency of error, and the higher the sample, the more accurate the result would be.

However, a sample size of 150 or more is appropriate or fit to achieve parameter estimates have standard errors much smaller to be of practical use (Anderson & Gerbing, 1988). Hair, Black, Babin, and Anderson, (2010) recommended that sample size should range from 150 to 400 to evade the problems of misspecification. Similarly, a sample size that

ranges from 100 - 150 is suggested in order to avoid non-convergence or improper solutions in the confirmatory factor analysis model (Kline, 2005). Furthermore, in the multivariate study the sample size is suggested to be numerous times (if possible ten times or more), as substantial as the quantity of variable in the examination, and if the sample consists of sub-samples, at least 30 samples were to be of five samples for one indicator (Sekaran, 2003).

In addition, Cohen (1988) argued that to determine prerequisite sample size of the study, one might decide the importance criterion and the preferred amount of statistical power to be attained. Additionally, the effect size, which is referred to as anticipated population, must be specified. If the sample size is large, the error will be smaller and the better the accuracy of the results (Cohen, 1988). This reinforces the possibility of identifying the phenomena in the test. It is also further suggested that choosing a sample representative of population is better than taking a large but biased sample leading to erroneous statement regarding the population. Thus, the researcher has selected the population samples of this study carefully, bearing in mind the numerous precautions and suggestions of previous researchers.

3.4 Sampling Technique.

There are two basic types of sampling design: probability and non-probability sampling. Under probability sampling, every unit of the population has some known, non-zero chance or probability of being selected as a sample subject. It is used when the

representativeness of the sample is important for generalizations. While, non-probability sampling, the elements of the population do not have a known or predetermined chance of being selected as subjects. It is used when time or other factors are more important than generalizability (Sekaran & Bougie 2010).

In this study, probability sampling, in which each member of the population has an equal chance of being selected for the sample, was employed (Jackson 2008). Specifically, the type of probability sampling used in this study was systematic random sampling, since this study intended generalisation to the entire population. A systematic random method of sampling was used in this study, to enable the researcher to generalize to the population (Bryman & Bell, 2003). Creswell (2003) recommended choosing a random sample in which each single person in the population has the equal chance of being selected. Also, as highlighted that, in selecting random sampling method, the researcher can assume that the features of the sample estimated the population characteristics (Leedy & Ormrod, 2005).

Hair, Money, Samouel, and Page, (2007) argued that systematic random sampling involves the process of randomly choosing a preliminary starting point on the list, and then subsequently every single n th element selected in the sample frame. In addition, Zikmund *et al.*, (2010) did explain systematic sampling as a method in which starting point is carefully chosen by a random procedure and then every single n th number of population elements between each unit selected from a given sample. This study considered sampling interval to be population/sample ($8286/736 = 11.25$). The researcher

selected the number between 1 to 11 at a starting point, and then the sampling elements number were 22, 33, 44, 55, and 66 and so on up to the last sample selected (736).

The benefits attached in using this type of sampling include: it is easy and simple; it lets the researcher to add a systematic elements in to a random of subjects; it reduces human error and bias in selection of cases in the sample. It guaranteed the researcher that the population will be evenly sampled; and it is allows statistical conclusion to be made within the sample (Hair *et al.*, 2007; Sekaran, 2003; Zikmund *et al.*, 2010).

The study used systematic sampling technique because it considered suitable by previous similar studies (Awairitefe, 2005; Albueku & Ogbouma, 2013; Asgharnezhad, Akbarlou & Karkaj, 2013; Weiss, 1984; Zabidi, Ibrahim, & Ismail, 2007; Harriette, Spall & Toren, 2007; Tabidi, Songoomi & Soltan, 2013; Alibaygi, Rasekchi, Pezeshki, Ghasemi, & Akbari, 2013; Mbath, 2013; Aliyu, 2014).

3.5 Unit of Analysis

The unit of analysis represents who is being studied in a particular research. In management unit of analysis is divided into individual, organization and group, (Kumar, Abdul Talib & Ramayah, 2013; Creswell, 2012). Facts from the social/humanities science study have recognized a unit of analysis as an individual, an organization, and a group of individuals/organizations (Hair *et al.*, 2010). The Unit of analysis should be in consistent with the research problems, questions and objectives. The current study used organization as a unit of analysis and the respondents are owners/managers of SMEs in Kano state,

Nigeria. The owners/managers are the most suitable respondents for this study because they are the key decision makers of SMEs (Cochet & Chi Vo, 2012; Taddei & Delecolle, 2012). There are evidences that previous studies used organization as unit of analysis in conducting SMEs performance studies (Shehu & Mahmood 2013; Idar & Mahmood, 2011; Sulyanto & Rahab, 2012; Mahmood and Abdul Wahid, 2012; Al-swidi & Mahmood (2012).

3.6 Operationalization and Measurement of Variables

Crewel (2012) defined operational definition as a specification of how a researcher intends to define and measure all the variables in the study, which are peculiar to the study. The purpose of measurement is to explain the characteristics and properties of empirical events into a form that can be evaluated the study. Measurement is the process that is employed to symbolically characterize aspects of reality in the researches analytical world. Therefore, measurement is concerned with the assignment of numbers to empirical events according to a set of rules (Davis, 1996).

In this study, the concept of variables is based on previous studies that had been estimated and similarly to those variables adopted in this study. This study concentrated on five variables definitions namely: entrepreneurial orientation, social network, human capital, competitive advantage, and firm performance. The variables measures were be adapted or adopted from previous studies.

3.6.1 Firm performance

Performance is operationalized as the ability to access the level of organizations output (success or failure). The performance scales were adapted from Suliyanto and Rahab (2012) and Vorhies and Morgan (2003). The performance was measured from the subjective perspective (financial and non-financial) involving self-reported measures. Subjective measures was used because majority of the SMEs are owned by individuals and have no legal obligation to reveal their information. Therefore, respondents may be unwilling to provide actual financial data (Ambler, Styles, & Wang, 1999; Atuahene-Gima & Li, 2002; Tse *et al.*, 2004). Under this approach, respondents were asked to state their performance on measures like profitability, sales or market share relative for the previous years, or relative to that their competitors. The measures were accomplished with a five point scales from 5 (much higher) to 1 (much lower) range. The items are listed below:

Table 3.1
Firm performance measures

Construct item code	Survey Items
PER1	Sales growth
PER2	Sales growth relative to competitors
PER3	Employment growth
PER4	Market value growth relative to competitors
PER5	Growth profit

PER6	Return on assets (ROA)
PER7	Return on investment (ROI)

Suliyanto and Rahab (2012) in their empirical study where the items were rooted from previous studies of Calonte *et al.*, (2006); Keskin, (2006); Lin *et al.*, (2008) found the construct reliability to be 0.987.

3.6.2 Entrepreneurial Orientation

Entrepreneurship orientation is referred to as management activity which involves issues relating to innovativeness, proactiveness and risk taking. The EO scale to be employed is based on the work of Idar and Mahmood (2011) which is rooted from the work of Covin and Slevin (1989) that was developed based on Miller and Friesen (1983) and Khandwalla (1977) studies. It consists of three constructs, namely: innovativeness (3 items), proactiveness (3 items), and risk-taking. The measured items are based on a 5-point Likert scale, in which a scale of 5 is ‘strongly agree’ to a scale of 1 signifies ‘strongly disagree’. Idar and Mahmood (2011) conducted empirical study and they found Cronbach’s alpha to be 0.796. The items are listed in below:

Table 3.2

Entrepreneurial orientation measures

Construct item code	Survey items
E01	Our firm favors a strong emphasis on innovation, research and development of new products/services.
E02	Our firm often introduces many new products/services at a high rate
E03	Changes in product or services in our firm are usually been quite dramatic
E04	In dealing with competitors, our firm typically initiates actions which competitors initiate
E05	Compared with competitors, our firm is very often the first business to introduce new administrative techniques, products/services, operating technologies etc.
E06	Our firm typically adopts very competitive posture toward competitors.
E07	Our firm has a strong proclivity for projects with normal and high-risk rates.
E08	Our firm believes that because of the nature of the environment, bold, wide ranging acts are necessary to achieve the objectives.

EO9	When confronted with decision making situations involving uncertainty, our firm typically adopts a bold, aggressive posture in order to maximize the probability of exploiting potential opportunities.
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3.6.3 Social Network

The social network is operationalized as a relationship between the ego and alter/s for acquiring resources for business purposes. Alters consist of family members, relative’s friends and business contacts, which entrepreneurs keep in contact with. Social network measures were being adapted from the work of Frazier, (2000); Surin, (2013), and Reynolds, (1999). The study measured social network based on network size, network activity, network density and network centrality. Frazier (2011) conducted empirical study and found 0.84 Cronbach’s alpha. The items in the measurement include:

Table 3.3
Social network measurement

Item code	Survey items
SN01	Discussion with family and relatives help me to improve our business
SN02	Discussion with my close friends help me to improve our business
SN03	My interactions with potential or existing customers help me to build and improve our business.
SN04	My interactions with potential or existing investors help me to build and improve our business.

SN05	My interactions with potential or existing suppliers, distributors, or manufacturers help me to build and improve our business.
SN06	Our firm's social and professional contacts help me build and improve our business.
SN07	My interaction with this people help our firm to be one of the first to hear new things/information

3.6.4 Human Capital

According to Bontis (2001) human capital is defined as the combination of innovativeness, knowledge, skill, and ability of workers to meet their assignment. It consists of age of entrepreneur, gender, educational level and work experience) and the capability to perform a specific task in the business.

The items to measure human capital are adapted from previous research by Bontis, (1998), Youndt (1998); Ramayah and Jafar (2008). The items in the measure include:

Table 3.4
Human capital measurements

Item code	Survey items
HC01	Our employees are skilled
HC02	Our employees are widely considered the best in our industry
HC03	Our employees are creative.

HC04	Our employees are experts in their particular jobs and functions
HC05	Our employees are able to develop new ideas and knowledge

3.6.5 Competitive Advantage

The competitive advantage concept of Ramaswami, *et al.*, (2004), was adopted in this study. It comprises market sensing, and market responsiveness (customers), differentiated products, and market responsiveness (competitors). The items were measured on a 5-point scale, ranging from strongly agree (5) to strongly disagree (1). Below are the items used in measuring competitive advantage as mediator:

Table 3.5
Competitive advantage measures

Items code	Survey items
CA01	Our products are difficult for competitors to copy.
CA02	Our product designs are unique.
CA03	Our products do not have a significant advantage over those of our competitors.
CA04	Our ability to track changes in customer needs and wants is good.
CA05	Our analysis of customer satisfaction with the competitors' products is good.
CA06	Our surveillance of competitors is good.

CA07	Our collection of strategic information about customers and competitors for use with strategic planning is good.
CA08	Our firm has quickness of response to meeting changes in customer needs and wants
CA09	Our firm has response to customer complaints.
CA10	Our firm has made efforts to make product/service changes to overcome customer dissatisfaction with existing products.
CA11	Our firm has speed of dissemination of information in-house about competitors.
CA12	Our firm has response to competitive moves in the market place

3.7 Reliability and Validity

Instruments used in measuring variables in this study were all subjected to reliability and validity test conducted during the two phases of pretest and pilot test. It is important to find validity and reliability of survey instruments before it can be applied in any study (Cavana *et al.*, 2001). The concepts are repeatedly came across in the measurement and evaluation. Reliability is defined as internal consistency, which means the degree to which instrument measurement accurately and repeatedly measure the proposed construct (Peter, 1979; Churchill, 1979). Peter (1981) stated that validity can be referred to as the extent to which a measurement tool actually measures the construct that is supposed to measure.

Validity provides the answer to the question; does the scale serve its purpose? Earlier researchers for reliability and validity have tested all of the constructs which were used.

Several steps were taken to confirm the reliability & validity of the measures employed in this study. Firstly, the study measures are establish on those employed and validated in prior research. In addition, to confirm content validity of the survey measure, the items in the questionnaire were taken from scales previously created and determined to be valid by academic, researchers, and organizations.

3.7.1 Reliability

Reliability has been defined as the degree to which measuring tool stands free from error, and thus, consistent and stable through time and items in the scale (Sekaran & Bougie, 2010). It can also be seen as the level of internal constancy of the evaluating device over the period of time (Wiersma & Jurs, 1985; Kubiszyn & Borich, 1987; Borg & Gall, 1989). It is important to analyze scores for both reliability and validity. “Reliability is an assessment of the degree of consistency between multiple measurements of a variable (Hair, Black, Babin, Anderson, & Tatham, 2006) (p. 137) and it “concerns the degree to which the scores are free from random measurement error” (Kline, 2005, p.58). Thus, a scale with good reliability should consistently reflect the concept it mean to quantity. Additionally, reliability is regarded as essential, but insufficient if the scale is not valid. Consequently, reliability plays a critical role in multivariate analysis. The study will focus on internal consistency. Based on the rule of thumb, the item-to-total correlations should

exceed .50, and the inter-item correlations should exceed .30 (Hair *et al.*, 2006). Cronbach's alpha was computed to a coefficient of internal consistency reliability, that is how closely associated to a set of indicators are as a group. The normal decided lower limit is .70 on Cronbach's alpha, and this relates to the reliability coefficient that evaluates the consistency of the total scales, even though it can decrease to .60 in exploratory research. Measuring Cronbach's alpha determines its positive correlation to the number of objects in the scale (Hair *et al.*, 2006).

3.7.2 Validity

The validity of an instrument deliberates degree to which the tool measure what is supposed to quantity. According to Huck, (2004) there are two major ways of assessing validity. Content and construct validity. The content validity is through face validity that is based on expert assessment (Green, Tull & Albaum, 1988). It also serves as a process of consulting small sample or panel of professional to judge on the suitability of the objects selected to measure a concept (Hair *et al.*, 2007; Sekaran & Bougie, 2010).

To establish efficiency in the data collection the researcher consulted managers/owners of SMEs and academicians. The objective is to help the investigator in identifying the strengths and weaknesses of the questionnaire in relation to the questions wording, format, and order. Nunnally's (1978) recommended conducting the pre-test and argued that subjective estimates be made of a survey instruments to make sure that the questions stand comprehensible and understandable, and that items scale signify the

basic idea of interest. During the pre-test, the participants were asked to evaluate the questions on how well they measured the subject of interest. They were also asked to mark the questions they found confusing or unclear. After the pre-test was finished, the researcher analyzed problems and updated the wording of questions to tackle problems. A reasonable, comprehensive, clear, proficient review was gotten. Face and content validity of the questionnaire was achieved through this pre-test with the often expert. Cavana *et al.*, (2001), Krejcie and Morgan, (1970) have established ten experts as sufficient for instrument refinements and verification in any content of validity of a research questionnaire. Therefore, team of ten expert reviewed the questionnaire for this study.

Construct validity consists of an exploratory analysis using Varimax rotation and principal components analysis for ascertaining the construct validity. Factor analysis was used as a technique. It is seen as an asset of technique for studying the interrelationship among the variables, and also used to verify factor/items loading on the correct factors as identified by prior researchers (Venkatraman, 1989). It also decreases large set of variables into manageable, meaningful and interpretable set of factors (Cavana, *et al.*, 2001).

Hair *et al.*, (2010) and Tabachnick and Fidell (2014) recommended the factor loading above 0.3 to be considered as a minimal level. While, 0.4 loading are regarded as more important and 0.5 and above considered practically significant. Nevertheless, Tabachnick and Fidell (2007, 2014) states that the selected loading cutoff is the favorite of the

researcher. Thus, a loading of 0.5 and above was considered as a significant factor loading of this study.

3.8 Pilot Test

As explained by Gay, Mills and Airasian (2006) pilot test is regarded as a trial in which a small scale of the study is carried out before the actual full-scale study. The sample of population is usually small, ranging from fifteen to thirty respondents (Malhotra, 2008). The most test of inter-item consistency reliability is the Cronbach's alpha coefficient. The questionnaire was distributed to 30 respondents comprises SMEs owners/managers in Kano. The reliability test was additionally conducted during the pilot-test to see if the data collecting method demonstrate their exactness, strength, or consistency level in uncovering specific indications of a group of persons. The test was conducted by finding the Cronbach Alpha of all the variables in the questionnaire using SPSS version 21. Nunnally, (1978) recommended that if Cronbach Alpha is above 0.70, the variable is admitted as reliable. Moreover, Hair, *et al.*, (2003) consider 0.60 to less than 0.70 as moderate and adequate for use in the study.

Table 3.1 shows a summary of reliability test results of 30 respondents from the pilot test. The alpha scores, which range from 0.875 to 0.915 for the constructs are all within the acceptable limits (Hair *et al.*, 2003; O'Sullivan *et al.*, 2003).

Table 3.6

Reliability test results of the survey instruments

Survey Instruments	Constructs	Number of items	Cronbach Alpha Coefficients
EO	Entrepreneurial Orientation	9	0.913
SA	Social Network	7	0.915
HC	Human Capital	5	0.875
CA	Competitive Advantage	12	0.869
FP	Firm Performance	7	0.894

From the above table, the result of the study indicated a high and acceptable level of Cronbach's alfa coefficient. Hence, all constructs under investigation are above 0.7.

3.9 Data Collection Method

Even though there are many methods of data collection in survey, the primary data for statistical analysis in this study was randomly collected through questionnaire design among SMEs listed by SMEDAN. The researcher has adopted this because it allows for a wide gathering of information at a particular time (Sekaran & Bougie, 2010). The researcher adopted a quantitative measurement to affirm research findings and assisted in the interpretation of the research results. There appears to be substantially more evidence supporting greater response rates for postal mail surveys than e-mail/Web contacts (Cole, 2005; Klassen & Jacobs, 2001; Kwak & Radler, 2002; DSS Research 2000; Leece *et al.*,

2004). Therefore, evaluators planning to use a Web-based survey face the likely limitation of lower response rates relative to more traditional approaches. Given this situation, many consider using a postal approach to improve response rates.

Groves *et al.*, (2009) recommended the use of postal survey data collection technique. This method according to them has a high response rate as well as having good internal reliability. Postal questionnaire-mailed to respondents with a stamped envelope for return to the researcher. It provides an inexpensive way of gathering data, especially if respondents are dispersed over a large geographical area (Edwards, *et al.*, 2002)

However, Kroth *et al.*, (2009) achieved response rate of more than 61 percent when they employed postal survey in their study in USA. The researcher is able to contact large numbers of people quickly, easily and efficiently using a postal questionnaire (since all he/she has to do is identify the group that will be targeted and post them the list of questions), questionnaire is easy to standardize. For example, every respondent is asked the same question in the same way. The researcher, therefore, can be sure that everyone in the sample answers exactly the same questions, which makes this a very reliable method of research (Edwards, *et al.*, 2002).

Even though, Postal and in some cases self-collection of questionnaire are costly. The methods were used because of their outstanding benefits, which include collection of the entire completed questionnaire within a short period, it can give researcher additional explanation on items that need clarification by the respondents and it can persuade the

respondents to be part of the survey and offer their sincere opinions (Bichi, 2004; Sekaran & Bougie, 2010).

3.9.1 Questionnaire Design

Questionnaire design is another very important stage of any research, because it gives opportunity to capture the numbers of targeted respondent and also assist in avoiding and reducing probable measurement error through logical arrangements of the questions in a manner that is best be understood by the respondents. The study used a self-report questionnaire method for all adapted items to measure independent variables (entrepreneurial orientation, social network), moderating (human capital), mediating (competitive advantage), and dependent variable (firm performance). Self-report method remains the most commonly used method of assessment in social-personality psychology research (Robins, Tracy & Sherman, 2007). Self-reports are frequently used because of the efficiency and practicality in getting many data from a large number of respondents (Paulhus & Vazire, 2007).

A questionnaire has been defined as a set of questions listed to provide information on certain variables based on the feelings of other individuals called the respondent. These questions can be open ended, dichotomous and/or close ended. For the purpose of this research, the questions are close ended because they restrict the respondents within the set of provided alternative answers in measuring their objective and subjective feelings on the conduct of entrepreneurial orientation and social network in their respective SMES.

In order to efficiently achieve this, the researcher embarked on adequate standardization of questions through a well-structured undisguised and post-administered questionnaire. This effort is very necessary because the expected responses are important to the achievement of a reliable statistical analysis in the results (Hair *et al.*, 2006).

The questionnaire used in this study has seven parts. Part A consists of seven (7) questions regarding the dependent variable, which is Firm performance. Part B has nine (9) questions regarding the one of the independent variables, which is entrepreneurial orientation. In Part C there are seven (7) questions in respect to social network as independent variable. Part D and E are questions in respect of the moderating and mediating variables. There are five (5) questions for human capital as moderator and twelve (12) questions regarding the competitive advantage as mediator. Part F consists seven (7) questions regarding the background of participant. Part G which is the last, is about the demographic information of the business and consists of four (4) questions.

3.9.2 Rating scales for the response

Despite some studies in the literature used four, six, and seven Likert scale points, the researcher favors five Likert scale. Krosnic and Fabrigar (1997) argued that using scale with mid-point provides better and accurate result and enables respondents to comfortably show their stand more precisely. Elmore and begs (1975) indicated that five point scale is preferable and increase in the number from five to seven or nine as the case may be do not guarantee improvement in the reliability of rating. In addition, Schuman and presser

(1981) stressed the need of having scales with mid-points as they give wider respondents to better express their stand more comfortably. This is also in the line with Neuman and Robson (2008) who asserted five point Likert scale is the most appropriate and provide better results. Therefore, five point Likert scales were adopted for this study. The researcher has structured all constructs in the measuring instrument to use 5- point Likert scale, including the independent, moderating, mediating and the dependent variables. This is despite some other literatures have argued on the benefits inherent in 5-point Likert type of scale, Thus, to achieve a better optimal result in information processing and scale reliability, 5-point Likert scales is said to be efficient (Neuman & Robson 2008).

The Likert scale is found to be more suitable for this study due to the nature of the respondents and the information they are required to provide (Alreck & Settle, 1995). Furthermore, Krosnick and Fabrigar (1997) argued that a scale between five and or seven points is more reliable than higher or lower scales and a scale with no midpoint may increase the measurement error. Equally, Dawes (2008) point out that a five or seven-point scales are likely to produce better results (Sauro, 2010)

3.9.3 Data Collection Procedures

Data collection process was started on 23 May 2015 and ended on 04th September 2015, taking the period of almost four and half months. The 736 questionnaires with self-addressed envelopes were distributed through post-mail to the managers/owners of SME located in Kano, Northwest zone of Nigeria. To increase and achieve high response rates,

series of follow-up were made through emails, SMS, several phone call reminders and self-visit to the respondents and their associations under SMEDAN by the researcher in order to encourage, urge, and remind them to respond (Silva, Smith, & Bammer, 2002; Traina, MacLean, Park, & Kahn, 2005; Sekaran, 2003; Dillman, 2000; Porter, 2004; Dillman *et al.*, 2009). As suggested by De Leeuw, (2005) and Dillman *et al.*, (2009) on response rate improvement to post-mail mode, an email was sent to some respondents through their associations as an appreciation to those that send back the questionnaire and as another remainder to those that did not send back their responses. For those that do not have an email a self-visit was conducted to their respective union leaders in order to persuade them to fill in the questionnaire in their regular monthly or emergency meetings. Although the sample of the study is 368 as suggested by Krejcie and Morgan (1970) the increase of the 736 sent out questionnaires was deliberately done to overcome the likelihood of not getting the required number of sample size because of the tendency of non-responses (Bartlett, Kotrlik, & Higgins, 2001; Cochran, 1977). Thus, because of the efforts made, 342 questionnaires were returned out of 736 questionnaires that were distributed by postal delivery to the targeted respondents (SME's).

Nearly 40 days after distribution of the questionnaire, 228 completed and usable questionnaires were received. These 228 completed questionnaires were labeled as early responses and were further used in conducting non-response bias. Despite the encouraging responses, a follow-up email and Short Message Service (SMS) were sent to the Managers/owners of the SMEs to remind those participants who were yet to complete

their questionnaires. This effort generated additional 55 questionnaires, which were categorized as late responses, and used for testing non-response bias. Within the period of data collection, out of 724 questionnaires distributed to the target participants, 342 questionnaires were returned of these questionnaires, 59 were excluded because a significant part of these questionnaires are incomplete; and the remaining 283 useable questionnaires were utilized for further analysis. This accounted for a response rate of 53%. The data collection exercise lasted for nearly four months.

3.10 Technique of Data Analysis

After the collection of sufficient data that matches the minimum sample size requirements, the researcher coded, summarized and analyzed the data with SPSS, structural equation modeling (PLS). Both descriptive and inferential statistics were employed as a method of data analysis. Descriptive statistics was employed to explain the features of data quantitatively. It aims to summarize a sample rather than taking the whole population (Bichi, 2004). It gives a summary about the sample and the observation made. Therefore, PLS-SEM was employed in the data analysis.

Below are details explanations on the instruments employed in analyzing and interpreting the data collected for the main explanatory study.

3.10.1 Structural Equation Modeling (PLS-SEM)

As noted, Structural equation modeling (SEM) is widely used by many researchers in many fields of disciplines. The researcher analyzed this study with PLS-SEM. Existing literatures have established SEM as a powerful 2nd generation multivariate technique that is good for result analyses which have many constructs, by allowing the evaluation of measurement properties and theoretical (structural) connections with multiple relationships, simultaneously in the same analysis (Byrne, 2010; Hair *et al.*, 2010; Hau & Marsh 2004). SEM was noted to have the capacity of using combined multiple regressions, path techniques and factor analysis for a simultaneous assessment of measurement, and found the connections between a number of theoretically linked concepts, named latent variables (Byrne, 2010; Hair *et al.*, 2010).

PLS falls under the two types of Structural Equation Modeling (SEM). The two types of SEM are Covariance-SEM and Component-based-SEM. PLS is part of Component-based-SEM. numerous rationales exist for using either of the two types of SEM in a research work (Hair, Ringle, & Sarstedt, 2011).

PLS path modelling (Wold, 1974, 1985) using Smart PLS software (Ringle *et al.*, 2005) was employed in this study to test the theoretical model. The PLS modelling is considered as the most appropriate method of data analysis in this study based on several reasons below:

First, PLS path modelling is selected in this study because of the estimation the interactions between constructs or structural model and associations between indicators and their corresponding latent constructs or measurement model concurrently, even though it is similar to conventional regression technique (Chin, Marcolin, & Newsted, 2003; Duarte & Raposo, 2010; Gerlach, Kowalski, & Wold, 1979; Lohmöller, 1989).

Secondly, as stated at the beginning of the study, despite the extant research regarding the role of entrepreneurial orientation and social network in SME performance. Literatures show that the moderating and mediating effect of human capital and competitive advantage on the influence of entrepreneurial orientation, social network, and firm performance has yet been limited. Additionally, the objective of the study is to predict the role of entrepreneurial orientation, social network, and human capital in increasing manager's/owners performance. The present research is explorative in nature by applying RBV theory, Social network theory and RDV theory. Therefore, path modelling approach is require to be use since it has been recommended that if the study does not test or compare theories, or is prediction-oriented or an extension of an existing theory, PLS path modelling ought to be employed (Hair *et al.*, 2011; Henseler, Ringle, & Sinkovics, 2009; Hulland, 1999).

Thirdly, the model structure of the study is regarded as somewhat complex because the study will examine both direct and indirect as well as moderating and mediating effects of the variables under study. In addition, the study has reflective constructs

Fourthly, compared to other path modelling software e.g., Analysis of Moment Structures (AMOS), Smart PLS software was carefully chosen as a tool of data analysis for the reason that of its friendly graphical user interface that help users to create a moderating and mediating effect for path models with interaction effects (Temme, Kreis, & Hildebrandt, 2006, 2010).

Also, Table 3.7 Below show the rule of thumb for selecting CB-SEM and PLS-SEM as outlined by Hair *et al.*, (2011) to justify the use of PLS-SEM in study.

Table 3.7
Rule of thumb for selecting Covariance-SEM and PLS-SEM

Issue	Covariance-SEM	PLS-SEM
Research Goals	Theory testing, confirmation and comparison	Predicting key target construct, exploratory research, and extension of an existing structural theory
Measurement Model Specification	Mostly reflective measures	Both formative and reflective measures.
Structural Model	Non-recursive Model	Complex Model
Assumptions	Parametric with sample size and data distribution Assumptions	Nonparametric does not require assumptions to be fulfilled

Sample Size	Large	Small and Large
Model Specification	If research requires goodness- of-fit criterion	If research will use latent variable scores in subsequent analyses

Note. Adapted from Hair, Ringle, and Sarstedt, (2011), PLS-SEM: Indeed a silver bullet, *The Journal of Marketing Theory and Practice*, 19(2), 145.

Apart from the reasons for using PLS derived from Hair *et al.*, (2011) an additional justification for using PLS is that it offers the possibility for different variable measurements ranging from categorical to ratio (Chin & Newsted, 1999). Based on the previously mentioned justifications, PLS-SEM is considered more appropriate for the study. Several stages and procedures were followed in data analysis of this study in using PLS for evaluating measurement and structural model.

3.10.1.1 Measurement Model Evaluation

Data was collected and screen using SPSS 21 version to ensure that it is suitable for the PLS analysis. To ascertain the measurement model, individual item reliabilities, internal consistency reliabilities, convergent validity, and discriminant validity were calculated using Smart PLS 2.0 M3 software (Hair *et al.*, 2011; Henseler *et al.*, 2009).

Reliability measured through any of two methods. Reliability can be measured through Cronbach's alpha or composite reliability. The threshold is that internal consistency

should be greater than 0.7 using either Cronbach's alpha or composite reliability, however, when research is exploratory, 0.6 to 0.7 is acceptable and an indicator loading higher than 0.70 is required (Hair *et al.*, 2011). In order to achieve validity of reflective construct, the variable is required to meet convergent and discriminant validity conditions. To meet convergent validity, the conditions are measured using Average Variance Extracted (AVE), which is required to be not less than 0.5. This means that the variance explained by latent construct for its indicators is 50% and above (Hair *et al.*, 2011). In addition, discriminant validity of latent construct's AVE should not be less than the highest squared correlation of the latent construct with any other latent construct in the research model. Moreover, the loading of an indicator should be greater than all of its cross-loadings (Hair *et al.*, 2011).

3.10.1.2 Structural Model Evaluation

Under structural model, standard bootstrapping technique with a number of 5000 bootstrap samples and 283 cases was employed to assess the structural model (Hair *et al.*, 2011; Hair, Sarstedt, Ringle, & Mena, 2012; Henseler *et al.*, 2009). Specifically, the path coefficients significance, *R*-squared level values, effect size, and predictive relevance of the model were assessed (Hair, Hult, Ringle, & Sarstedt, 2014).

To determine significance of Path coefficients, bootstrapping of the minimum number of 5000 bootstrapping sample, and the number of cases in the original sample was used.

Furthermore, path coefficients critical-values for one-tailed tests are 1.30, 1.645, and 1.965 at 10%, 5%, and 1% significance levels respectively (Hair *et al.*, 2011).

R -squared level values R^2 is another important in evaluating the predictive ability of the structural model. The value of R^2 describes the total variation in the latent dependent variable explained by independent variables (Saad, 2011). It can be evaluate in two ways by effect of a particular IV on the DV, or for the endogenous latent variables in the structural model. In case of effect of a specific IV on the DV, the values of 0.02, 0.15, and 0.35 are regarded as small, medium, and large effect respectively (Cohen, 1988). However, for overall effect on the endogenous latent variable the values of 0.25, 0.50, and 0.75 are considered weak, moderate, and substantial respectively (Hair *et al.*, 2011)

Effect size assesses the extent to which individual independent variables contributes independently to the explanation of the DV. It is assessed using Cohen, (1988) recommendation of .02, .15, and .35, which are classified as small, medium, and large.

Predictive relevance is another technique of assessing a structural model by measuring the model's capability to predict. In most cases, it is done by using Geisser's Q^2 , which proposes that the model must be able to predict each of the indicators of endogenous latent constructs (Hair *et al.*, 2011). Accordingly, Q^2 value beyond zero point out that the exogenous variable has a predictive relevance for the endogenous variable.

After the analyses of the main PLS path model were run, a supplementary PLS-SEM analysis (i.e., moderator and mediation analysis) was conducted using Henseler and

Chin's (2010b) in addition to Henseler and Fassott's (2010a) methods to the analysis of moderating effect of human capital in PLS path model. Lastly, the strength of the moderating effects was ascertained using Cohen's (1988) formula of effect size.

Mediation estimates the total, direct, and indirect effects of causal variable or variables x on outcome variable y through a proposed mediator variable or set of mediator variables m , controlling for (optional) one or more variables in cov . Mediation is similar to INDIRECT (Preacher and Hayes, 2008) but allows multiple X variables and also offers features for handling and coding a single multicategorical X variable. mediation also provides omnibus tests for direct, indirect and total effects for X as set, or the group variable coded with X when is multicategorical. Inferences for indirect effects can be based on either percentile bootstrap confidence intervals or Monte Carlo confidence intervals. The principles behind the estimation of direct, indirect, and total effects when X is multicategorical can be found in Hayes and Preacher (2014).

3.11 Chapter Summary

This chapter gave a description of the present study's research plan. It depicted the target population, sampling criteria and techniques, and it described questionnaire design, alongside with reliability and content validity of the questionnaire. However, the unit analysis of analysis which is the organization is clearly stated as well as operationalization and measurement of independent and dependent, moderating, mediating variables were

discuss. Furthermore, this segment provide a summary of data collection and data analysis technique, reliability, validity and result for pilot study were discuss.

CHAPTER FOUR

ANALYSIS AND FINDINGS

4.1 Introduction

This chapter presents the result from the data analysis. The analysis was carried out using both descriptive and inferential statistics. Descriptive analysis was use to describe demographic characteristics of the study. While, the relationship among the independent variables (entrepreneurial orientation, social network, and human capital) and dependent variable (firm performance) as well as moderator and mediator effect (human capital and competitive advantage) were conducted using inferential statistics.

The chapter discusses the results of data analyzed using PLS path modelling. This part starts discussing with reporting data response rate, data screening and preliminary analysis. Descriptive statistics result for all the variables are reported. The present study presented the main result of measurement and structural model. The measurement model was use to examine the cross loadings, convergent validity internal consistency reliability, and discriminant validity. While the structural model was use to determine the impact of the path coefficients, R-squared values, individual variable effect size, and model of predictive relevance. Lastly, results of complementary PLS-SEM analysis, which reveals the moderating and mediating effects of human capital and competitive advantage were also reported as part of the structural model.

4.2 Response Rate

Data collection process was started on 23 May 2015 and ended on 04th September 2015, taking the period of almost four and half months. 736 paper questionnaires were self-addressed envelopes and distributed through post-mail to the managers/owners of SME located in Kano, Northwest zone of Nigeria. To increase and achieve high response rates, series of follow-up were made through emails, SMS, several phone call reminders and self-visit to the respondents associations under SMEDAN by the researcher in order to encourage, urge, and remind them to respond (Silva, Smith, & Bammer, 2002; Traina, MacLean, Park, & Kahn, 2005; Sekaran, 2003; Dillman, 2000; Porter, 2004; Dillman *et al.*, 2009). As suggested by De Leeuw, (2005) and Dillman *et al.*, (2009) on response rate improvement to post-mail mode, an email was sent to respondents through their associations as an appreciation to those that send back their questionnaire and as an alternative to those that non-respondents which were reminded to respond. Although the sample of the study is 368 as suggested by Krejcie and Morgan (1970) the increase of the 736 sent out questionnaires was deliberately done to overcome the likelihood of not getting the required number of sample size as a result of the tendency of non-responses (Bartlett, Kotrlik, & Higgins, 2001; Cochran, 1977). Thus, because of the efforts made, 342 questionnaires were return, out of 736 survey questionnaires that were circulated by postal delivery and hand delivery to the targeted respondents (SME's). This provides a response rate of 53.53 percent based on Jobber's (1989) definition of response rate. Out of the 342 returned questionnaires, 59 were unusable and therefore discarded because of incomplete submission i.e. significant parts of them were not completed by the

respondents (36 cases), cases of extreme outliers and unengaged responses (23 cases) making the responses to be invalid. The remaining 283 valid survey questionnaires were used for analysis in this study making the valid rate of response 38.45 percent. Consequently, a response rate of 53.53 percent is consider sufficient for the analysis in this study since Sekaran (2003) and Hair *et al.*, (2010) suggested 30% rate of response as sufficient for surveys research. Equally, Pallant (2010) recommended that for regression analysis to be conducted, size of the sample could be among five (5) and ten (10) times the number of IVs. Since the numbers of IVs in this research are five (5), it suggests that a sample size of 50 respondents can be sufficient. All the 283 returned and usable questionnaires were coded and entered into the SPSS version 22. Table 5.1 indicates the distribution of the study sample and the entire number of respondents by each set of the owners. (See Table 4.1).

Table 4.1
Response Rate of the Questionnaires

Response	Frequency/Rate
No. of distributed questionnaires	736
Returned questionnaires	342
Returned and usable questionnaires.	283
Returned and excluded questionnaires.	59
Questionnaires not returned	394
Response rate	53.53%
Valid response rate	38.45%

4.3 Data Screening and Preliminary Analysis

Preliminary data screening is very essential in performing multivariate analysis because it assists any researcher to detect any possible violations of the vital assumptions concerning the use of multivariate methods of data analysis (Hair *et al.*, 2007). Moreover, it helps researchers to better understand the data collected for further analysis.

Following data coding and entry, the preliminary data analyses were made: (i) Detection of missing data, (ii) assessment of outliers, (iii) normality test, and (iv) multicollinearity test (Hair, *et al.*, 2010; Tabachnick & Fidell, 2007).

4.3.1 Missing Value Analysis

In the original SPSS dataset, out of 11,320 data points, 31 were randomly missed, which accounted for 0.27% of the total data points. Specifically, Gender and Marital status had one missing value each. On the other hand, firm performance had four missing values; entrepreneurial orientation had seven missing values; number of employees had nine missing values, social network had three missing values, competitive advantage had six missing values and no missing value found in human capital.

Even though there is no acceptable percentage of missing values in a data set, however, 5% or less is considered non-significant (Schafer, 1999; Tabachnick & Fidell, 2007). Additionally, researchers have recommended the use of mean substitution as the easiest way of replacing missing values if the total percentage of missing data is 5% or less (Little & Rubin, 1987; Raymond, 1986; Tabachnick & Fidell, 2007). Therefore, the researcher

use mean substitution in replacing randomly missing values (Tabachnick & Fidell, 2007). Table 4.2 shows the total and percentage of randomly missing values in the present study (see Appendix D for SPSS outputs).

Table 4.2
Total and Percentage of Missing Values

Latent variables	Number of missing values
Gender	1
Marital status	1
Number of employees	9
Firm performance	4
Entrepreneurial orientation	7
Social network	3
Competitive advantage	5
Total missing value	31 out of 11320 data point
Percentage of missing value	0.27%

4.3.2 Assessment of Outliers

According to Byrne (2010) outliers are cases whose scores are considerably dissimilar from all the others (respondents) in a given data. Outliers are observations that are significantly different from other observations (Hair *et al*, 2010). In a regression-based analysis, the presence of outliers in the data set can seriously distort the estimates of regression coefficients and lead to unreliable results (Verardi & Croux, 2008). Therefore, univariate and multivariate

outliers were check. To detect observations that are outside SPSS value labels because of data wrong entry, the researcher tabulated frequency tables for all variables by using minimum and maximum statistics. Based on this initial analysis of frequency statistics, there was no any value found to be outside the expected range.

Tabachnick and Fidell (2007) point out that the existence of outliers in a data set is caused by four reasons as follows:

- I. Incorrect data entry
- II. Failure to specify missing value
- III. Outlier is not a member of the population under study, and
- IV. Outlier is from intended population the distribution for the variable in the population has more extreme values than a normally distributed data.

The presences of univariate outliers can be detected using either standardized variable values (Z score) or by using frequency distribution tables such as histograms, box plots and normal probability plots. The study use standardized variable values (z-scores) threshold of ± 3.29 or ± 4.0 as recommended by Tabachinick and Fidell (2007) and Hair *et al.*, 2010) respectively.

Tabachinick and Fidell (2007) suggested the detection of univariate outlier by observation of Z score using standardized values with a cut-off of ± 3.29 ($p < .001$ sig. level). Following Tabachnick and Fidell's (2007) criterion for detecting outliers, none of the case was identified using standardized values as potential univariate outliers. The Z score for every indicator should be within the range of ± 3.29 (0.001 sig. level). Also, using Hair *et al.*, 2010

standardized variable values threshold of ± 4.0 for sample size larger than 80, none of the value exceeded the threshold therefore this study has not detected any case of outliers.

Besides using standardized values to detect univariate outliers, Mahalanobis distance (D2) were also used to check multivariate outliers. Tabachnick and Fidell (2007) defined Mahalanobis distance (D2) as “the distance of a case from the centroid of the remaining cases where the centroid is the point created at the intersection of the means of all the variables” (p. 74). Based on the five variables of the study, the recommended threshold chi-square is 63.69 ($p = 0.001$) and the highest number of Mahalanobis distance value in the SPSS is 40.713, there is no presence of multivariate outlier in this study. Therefore, 283 cases were considered for further multivariate analysis.

4.3.3 Normality Test.

Normality is an important assumption in multivariate investigation (Hair *et al.*, 2010). It manages the way of data distribution for construct and its relationship with normal distribution (Tabachnick & Fidell, 2007). Tabachnick and Fidell, (2007) asserted that one of the basic postulation of regression analysis is that each variable in the study and all linear groupings of the variable are normally distributed.

Prior study (Wetzels, Odekerken-Schroder, & Van Oppen, 2009, Reinartz, Haenlein, & Henseler, 2009) usually assumed that PLS-SEM provides accurate model estimations in situations with extremely non-normal data. Nevertheless, this assumption turn to be not true. In recent times, Sarstedt, Ringle and Mena (2012) suggested that researchers should

conduct the test of normality on the data because highly skewed or kurtosis data can inflate the bootstrapped standard error estimations (Chernick, 2008) which consecutively undervalue the statistical significance of the path coefficients (Ringle, Sarstedt, & Straub, 2012a; Dijkstra, 1983).

Therefore, where the final aim of the study is to create inference, screening for normality is an essential step in multivariate analysis (Hair *et al.*, 2010; Tabachnick & Fidell, 2007).

Normality is typically assessed by either statistical or graphical methods. The basic mechanisms of statistical test of normality are skewness and kurtosis. Nevertheless, Tabachnick and Fidell (2013) argued that deviation from normality of Skewness and Kurtosis does not make a substantive difference when the sample is more than 200 in the analysis. Curran *et al.* (1996) and West *et al.* (1995) argued that Skewness values should be less than 2 and Kurtosis values should be less than 7. In addition, Kline (2015) states that the absolute value of Skewness greater than 3 and Kurtosis value greater than 10 may indicate a problem; and values above 20 may postulate a more serious problem of non-normality. Based on this recommendation, the result of normality test revealed that distribution of data is normal because the value i.e. Z-score of both skewness and kurtosis of all indicators/items were within the satisfactory range of less than two and not greater than seven respectively. (See Appendix E).

Table 4.3
Results of Test of Skewness and Kurtosis

	N	Mean	Skewness	Std.	Kurtosis	Std.
	Statistic	Statistic	Statistic	Error	Statistic	Error
Firm performance	283	3.45	-.377	.145	.660	.289
Entr. orientation	283	3.49	-.153	.145	.651	.289
Social network	283	3.71	-.762	.145	.221	.289
Human capital	283	3.66	-.527	.145	.501	.289
Comp. advantage	283	3.59	-.827	.145	1.635	.289
Valid N (listwise)	283					

This study also used graphical method in checking the normality of the data collected because according to Field (2009) if the sample is large from 200 and the above, it is more essential to look at the distribution shape graphically rather than the value of the skewness and kurtosis statistics. Field added that a large sample reduces the standard errors, which can inflate the value of the skewness and kurtosis statistics.

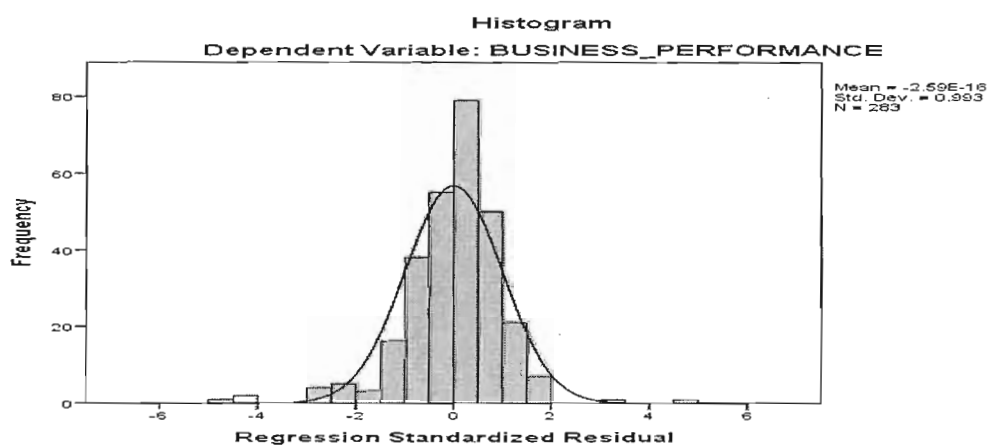


Figure 4.1 *Histogram*

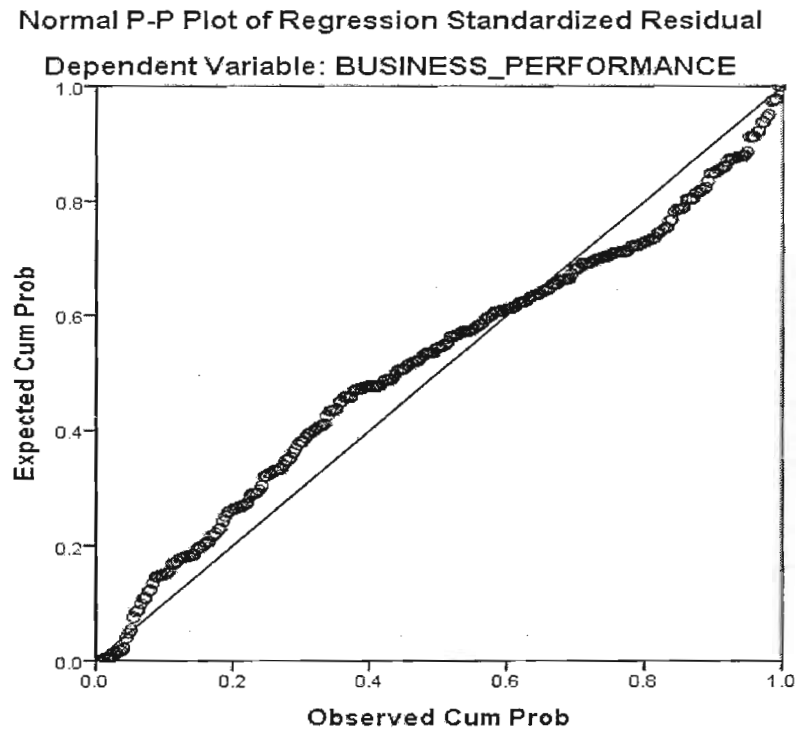


Figure 4.2 *Normal probability plots*

Therefore, normality is usually determined through histogram residual plots. This refers to a shape of data distribution to an individual continuous variable and its correspondent to normal distribution. If the assumption is met, the residuals should be normally and independently distributed (Tabachnick & Fidell, 2007). The histogram and normality plots were examined and show that the collected data follow normal pattern because the entire bars in the histogram were close to a curve. (See Appendix E).

4.3.4 Multicollinearity Test

Multicollinearity is a situation in which one or more exogenous latent constructs turn out to be highly correlated. The existence of multicollinearity in the midst of the exogenous latent constructs can substantively interfere with the estimates of regression coefficients and their statistical significance tests (Chatterjee & Yilmaz, 1992; Hair, Black, Babin, Anderson, & Tatham, 2006). Specially, collinearity or multicollinearity is a problem that occurs when predictor variables are tremendously correlated to 0.9 and above (Hair *et al.*, 2010). It is also rises the standard errors of the coefficients, which consecutively render the coefficients statistically non-significant (Tabachnick & Fidell, 2007).

To screen for multicollinearity, two method were used in this study in line with Chatterjee and Yilmaz, (1992), Peng, and Lai, (2012). Firstly, the correlation matrix of the exogenous constructs was examined. According to Hair *et al.* (2010) a correlation coefficient of 0.90 and above shows multicollinearity between exogenous latent constructs. Table 4.4 indicates the correlation matrix of all latent constructs.

Table 4.4
Correlation matrix of the Exogenous Latent Variable

N0.	Latent constructs	1	2	3
1	Entrepreneurial orientation	1		
2	Social network	.633	1	
3	Human capital	.584	.550	1

Table 4.5

Multicollinearity Test based on Tolerance Values and VIF

Latent constructs		Collinearity Statistics		Condition
		Tolerance	VIF	Index
Entrepreneurial orientation				1.000
	Social network	.697	1.435	11.904
	Human capital	.697	1.435	12.990
Social network				1.000
	Human capital	.659	1.518	11.976
	Entrepreneurial orientation	.659	1.518	15.512
Human capital				1.000
	Entrepreneurial orientation	.600	1.667	12.387
	Social network	.600	1.667	16.311

Source: Researcher

Latent constructs		Collinearity Statistics		Condition Index
		Tolerance	VIF	
1	(Constant)			1.000
	Entrepreneurial orientation	.520	1.923	13.744
	Social network	.550	1.818	14.934
	Human capital	.604	1.655	19.096

a. Dependent Variable: ID

As presented in the table 4.5 above, the correlations between the exogenous latent constructs were sufficiently below the suggested threshold values of .90 or more, which suggests that the latent constructs were not dependent and not extremely correlated.

Secondly, variance inflated factor (VIF), tolerance value and condition index were examined using regression result from SPSS to detect multicollinearity problem. Hair, Ringle and Sarstedt (2011) recommended that, multicollinearity is a concern if VIF value is greater than 5, tolerance value is less than .20 and condition index is not greater than

30. Table 4.5 shows the VIF values, tolerance values and condition index for the exogenous latent constructs and it is obvious that no variable are extremely interrelated with any other variables. Therefore, the researcher concludes that there is no dilemma of multicollinearity between the variables under study.

4.4 Test of Non-Response Bias

Non-response bias is define as common mistakes a researcher expect to make in evaluating sample characteristics for the reason that some categories of target respondents survey are under-estimated due to non-response (Berg, 2002). Lambert and Harrington (1990) defined non-response bias as “the differences in the answers between non-respondents and respondents” (p. 5). As elucidated in so many literatures there is no minimum response rate below which a survey estimate is necessarily biased and, conversely, no response rate above which it is never biased (Singer, 2006). Nevertheless, even if the non-response is small, there are likely biases that need to be examined (Sheikh, 1981; Pearl & Fairley, 1985). Armstrong and Overton (1977) proposed a time-trend extrapolation approach in order to estimate the possibility of non-response bias which entails comparing the early and late respondents. They claimed that late respondents share related characteristics with non-respondents. In addition, Lindner and Wingenbach (2002) recommended that a minimum response rate of 50% should be achieved in order to further minimize non-response bias issue.

Non-response bias test was conducted in this study in order to examine any differences among non-respondents and respondents. Its exists when non-respondents within the

entire population of the study differ significantly from the respondents, as a result reducing the group of responding representativeness of the population entirely.

Based on the Armstrong and Overton's (1977) method, this study applied extrapolation procedure in testing non-response bias where means were compared of all major variables under study of early and late group of respondents. The current study categorizes the respondents into two groups: those who responded within 60 days (i.e., early respondents) and those that responded to the questionnaires after 30 days (late respondents) (Vink & Boomsma, 2008). After which the independent t-test were conducted on 228 respondents, those that respond before 19th July 2015 are regarded as early and 55 respondents that responded after 19th July 2015 and assumed as late. The result for Levene's test for equity is that, if the test result is not significant, the equal variances line will be use, while if it is significant, the equal variances not assumed line will be use. Viewing at the table 4.6 below, the result of independent t-test showed that there is no statistically significant difference between all variables used under this study. Consequently, non-response bias does not exist in this study.

Table 4.6

Independent Samples T-test for Equality of Means Levens's Test for Equality of Variance

Constructs	Levene's Test for Equality of Variances			t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference		Lower	Upper
Firm performance	Equal variances assumed	12.793	.000	-9.13	281	.362	-.088	.096	-.277	.102
	Equal variances not assumed			-.759	68.780	.450	-.088	.116	-.319	.143
Entrepreneurial orientation	Equal variances assumed	2.598	.108	-3.339	281	.001	-.293	.088	-.466	-.120
	Equal variances not assumed			-3.248	79.494	.002	-.293	.090	-.473	-.113
Social network	Equal variances assumed	.349	.555	-.983	281	.327	-.109	.111	-.328	.110
	Equal variances not assumed			-1.005	84.320	.318	-.109	.109	-.326	.107
Human capital	Equal variances assumed	.400	.528	-2.748	281	.006	-.309	.112	-.530	-.088
	Equal variances not assumed			-2.973	90.855	.004	-.309	.104	-.516	-.103
Competitive advantage	Equal variances assumed	.120	.729	-1.611	281	.108	-.14330	.08897	-.31843	.03182
	Equal variances not assumed			-1.658	85.030	.101	-.14330	.08641	-.31511	.02850

Table 4.7

Group Descriptive Statistics for the Early and Late Respondents

Constructs	Response	N	Mean	Std. Deviation	F	Sig.
Firm performance	Early response	228	3.44	.595	.913	.362
	Late response	55	3.52	.807		
Entrepreneurial orientation	Early response	228	3.44	.579	2.598	.108
	Late response	55	3.73	.606		
Social network	Early response	228	3.69	.746	.349	.555
	Late response	55	3.80	.719		
Human capital	Early response	228	3.60	.766	.400	.528
	Late response	55	3.91	.673		
Competitive advantage	Early response	228	3.565	.597	.120	.729
	Late response	55	3.709	.569		

Based on the table above, mean and standard deviation for early and late responses are clearly diverse. The result of the t-test (Table 4.6) indicated that there is insignificant difference between the early respondents and late responses. Thus, no problem of non-response bias in this study. Additionally, following Lindner and Wingenbach's (2002) endorsement, since this study attained 54% response rate, it can be further argue that the issue of non-response bias does not seem to be a major concern.

4.5 Common Method Variance Test

According to Podsakoff, MacKenzie, Lee and Podsakoff, (2003) Common method variance (CMV) refers to "variance that is attributable to the measurement method rather than to the construct of interest" (p. 879). However, there is general agreement

that common method variance is a major concern for researchers using self-report surveys (Podsakoff *et al.*, 2003; Lindell & Whitney, 2001; Spector, 2006). For instance, Conway and Lance (2010) identified that “common method bias inflates relationships between variables measured by self-reports” (p. 325). This study used self-reported data from owners/managers of Nigerian SMEs, which creates potential for CMV, this shows that the predictors (i.e., entrepreneurial orientation, social network, human capital and competitive advantage) and dependent variable (Firm performance) are obtained from the single raters (owners/managers).

The study embraced numerous procedural remedies to minimize the CMV effects. The respondents were told that no right or wrong answer to the items in the questionnaire and that their answers were confidential throughout the research process. Also, improved scale of items was used to reduce method biases. This was done by avoiding vague concepts in the questionnaire and when such concepts were used, simple examples were provided.

To discourse the issue of CMV, the statistical measures were taken in the research process using Harman’s single-factor test as recommended by Podsakoff *et al.* (2003). Using this method, all items in this study were subjected to a principal components factor analysis. The outcomes of the analysis yielded 5 factors, explaining a cumulative of 65.72% of the variance; with the first (largest) factor explaining 30.26% of the total variance, which is less than 50% (Kumar, 2012). In addition, the results show that no single factor accounted for the majority of covariance in the criterion and predictor variables (Podsakoff *et al.*, 2012). Therefore, this shows that, CMB may not be a severe problem in the present study data.

4.6 Demographic Profile of the Respondents

Under this section, the researcher described the demographic profile of the respondents in the sample of the study. The characteristics examined include job position, age, marital status, gender, educational level, working experience, ethnicity, industry, turnover, and number of employees. (See table 4.8)

Table 4.8

Summary of Respondents Demography

Variables	Item	Frequency	Percent
Job position	Owner	86	30
	Manager	133	47
	Both	64	23
Age	Below 30	68	24
	30-40	166	59
	41-50	35	12
	Above 50	14	5
Marital status	Single	69	24
	Married	177	63
	Divorced	37	13
Gender	Male	224	79
	Female	59	21
Education Level	Non-formal	63	22
	Primary education	79	28
	Secondary	81	29
	Certificate/Diploma/NCE	36	13
	Graduate	12	4
Working experience	Postgraduate	12	4
	10 years & above	123	43
	5-10 years	84	30
	1- 5 years	47	17
	Less than 1 year	29	10
Ethnicity	Hausa	185	65
	Yaruba	46	16
	Igbo	32	11
	Others	20	8
Industry	manufacturing/manufacturing related activities	102	36
	services/ICT	71	25
	Public limited	56	20
	Cooperative societies	44	16
	Others	10	3

Table 4.8 Summary of Respondents Demography continue

Turnover	less than N50,000	32	11
	N50,000<N200,000	46	16
	N200,000<1,000,000	67	24
	N1,000,000<N5,000,000	61	22
	N5,000,000<N10,000,000	47	16
	N10,000,000<N25,000,000	30	11
Number of Employees	less than 5	49	17
	5 to 19	155	54
	20 to 50	58	21
	50 to 150	11	4
	More than 150	10	4
Types of business	Sole proprietorship	75	27
	Partnership	144	51
	Private-limited	64	22

The descriptive analysis discloses that 30% representing 86 respondents are owners of the business, 47% representing 133 respondents are different categories of Managers and 23% are Owners/Managers of the business. As regards to the age group, 24% of the respondents were in the age group of less than 30 years. Followed by age group of 30-40 years with the highest number of respondents of 166, which accounted for 59% of the sample. In 41-50 years' age group, there were 35 respondents, signifying 12% of the sample. The smallest age group ranged between 51 years and above, which signify for 14% respondents. Additionally, in terms of marital status of respondents, table 4.8 shows that 24% of the participants are single, followed by those that are married which comprises 63% of the respondents; while divorcees comprise 13% of the respondents. In addition, the majority of the participants in the study, that is 244 (79%), were males whereas the remaining 59, representing 21% were females.

Regarding the educational level, those with Non-formal education constituted 63 respondents which represent 22% of the total respondents, Primary education constitute 28% of the respondents, secondary education constituted 81 responses, representing 29% of the responses, Certificate/diploma/NCE constituted 36 responses representing 13% of the respondents, followed by Graduates with 12 responses, representing 4%, and finally are those with postgraduate experience amounting to 12 responses representing only 4% of the total response. This pointed out clearly that the majority of SME owner managers in Kano are the holders of secondary school certificates followed by those with non-formal education.

Descriptive statistics show that the respondents having less than one year in the business are 10%, followed by 5-10 years range 30%, and finally 11 years and above comprises 43% of the respondents. It can be evidently seen that the majority of the participants have 10 years and above business and working experience.

Table 4.8 indicates that the respondents are from diverse ethnic backgrounds, namely, Hausa/Fulani, Yoruba, Igbo and other minority tribes. Approximately 65% of the participants were Hausa/Fulani; 16% were Yoruba; 11% were Igbos and the remaining 8% represents other minority ethnic groups.

For business activities, the manufacturing related activities is 36%; services/ICT 25%; public limited companies 20%; cooperative societies 16% while others have only 3%. It was discovered that the respondents that have N50,000 or less represent 11% of the respondents; above N50,000<N200,000 are 16%; (1million naira is equivalent to USD 5,050.5 @)198 naira per \$1); N200,000<1,000,000 are 24%; 1<10 million naira are

38%; above 10<25 million are 11%. This perhaps indicates that the businesses are small in nature. Descriptive statistics reveal that the respondents with less than 5 employees are 17%, followed by 5 to 19 employees with 54%, 20 to 50 employees with 51%, and lastly, 50 to 150 and 150 and above employees have 4% each. It was also revealed that, majority of the business are in partnership in nature with 51% of the total respondent, followed by sole proprietorship and private limited with 27% and 22% respectively. Based on the above, it can be concluded that the respondents in this study provide sufficient variance about their backgrounds.

4.7 Mean and Standard Deviation

This subdivision is mainly concerned with the descriptive statistics of all variables employed in the present study. One of the most common measure of central tendency is the mean, which is define as the average value of the data set (Sekaran & Bougie, 2010). Standard deviation is measure of spread or dispersion, which provides an index of variability in the data set and it is the square root of variance. Both of them are fundamental descriptive statistics for interval and ratio scale. In this study, researcher used 5-point Likert scale, Nik, Jantan and Taib (2010) interpretation of the level of score is adapted. They suggested three level of score, scores of less than 2.33 are low level, and 2.33 to 3.67 are moderate level, and 3.67 and above are considered as high level.

Table 4.9
Descriptive statistics for latent variables

No. of Items	Description	Mean	Std. Deviation
7	Firm performance	3.450	.641
9	Entrepreneurial orientation	3.490	.595
7	Social network	3.710	.740
5	Human capital	3.660	.757
12	Competitive advantage	3.594	.594

Table 4.9 shows that the entire mean for the latent variables went between 3.45 and 3.71. In summary, the mean and standard deviation for the firm performance were 3.45 and .641 respectively. Entrepreneurial orientation was 3.49 and .595, social network was 3.71 and .74, human capital was 3.66 and .757 and competitive advantage was 3.593 and .59389 respectively. This shows that respondents tended to have high level of score in all the variable under study.

4.8 Assessment of PLS-SEM Path Model Results

This study used PLS SEM through the software application Smart-PLS (Hair, Ringle, & Sarstedt, 2013; Ringle, Wende, & Will, 2012). There are two vital multivariate techniques which PLS SEM depends on and they include factor analysis, and multiple regressions (Hair *et al.* 2010). It's also a tool used during the course of analysis of the main, moderating, and mediating results meant for this study.

The present research adopted a two-step process to assess and report the outcomes of PLS-SEM path, based on the contemporary development around the unsuitability of PLS path modelling in model validation, as recommended by Henseler, Ringle and Sinkovics (2009). The two-step process comprises:

(1) The assessment of a measurement model, and

(2) The assessment of a structural model, as illustrated in Figure 4.1 (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014; Hair, Sarstedt, Ringle, & Mena, 2012; Henseler *et al.*, 2009).

4.9 Assessment of Measurement Model

In PLS analysis, the initial step is to evaluate the outer model or measurement model as it is usually called. Outer model involves determining individual item reliability, internal consistency reliability, content validity, convergent validity and discriminant validity (Henseler *et al.*, 2009; Hair *et al.*, 2014; Hair *et al.*, 2011). Measurement model is concerned with estimate of the goodness of measures.

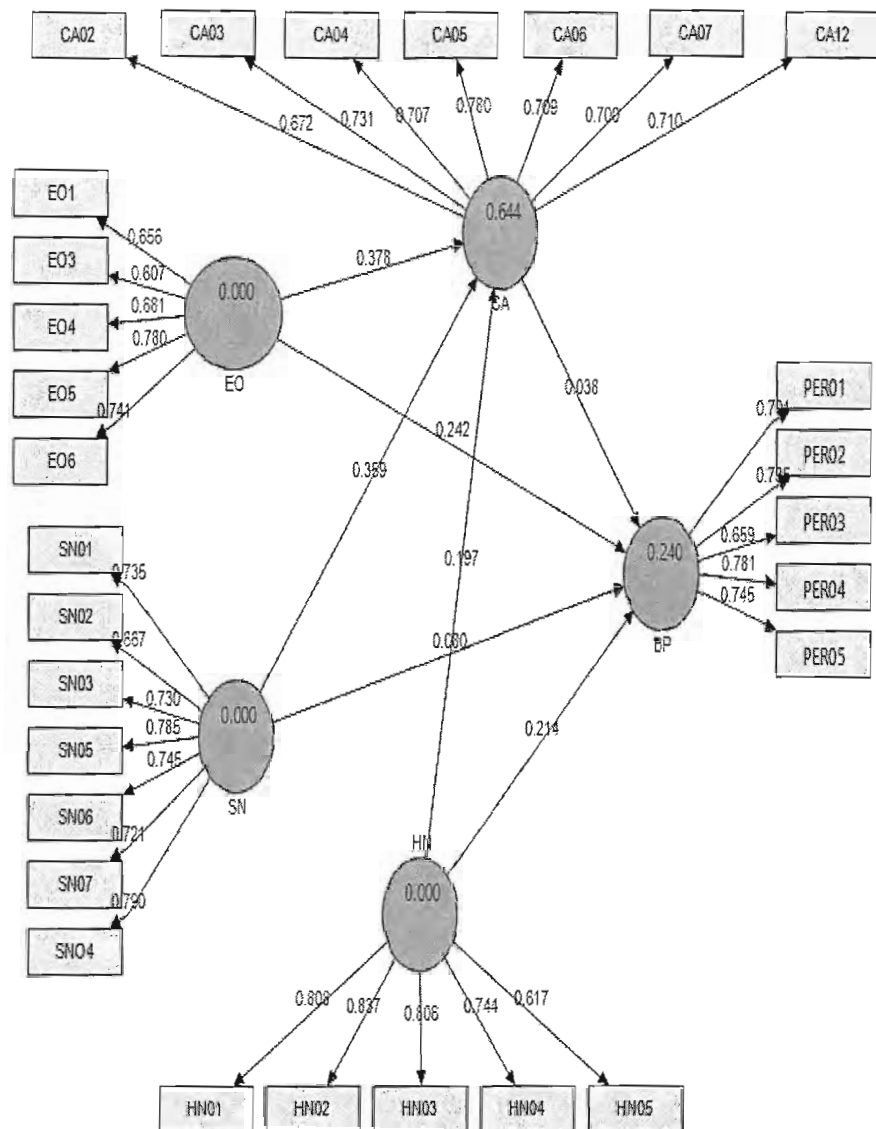


Figure 4.3 PLS Algorithm Measurement Model

Under this study, two key criteria were used to assess the outer models validity and reliability (Ramayah, Lee, & In, 2011). Reliability test tries to access how consistently measuring tools measures what it is meant to measure, on the other hand, validity tests try to assess how well an instrument measures an exact concept it is designed to measure (Hair *et al*, 2010; Sekaran & Bougie, 2010).

4.9.1 Indicator Item Reliability

Indicator item reliability was evaluated by looking at the outer loadings of individual concept's measure (Hair *et al.*, 2014; Duarte & Raposo, 2010; Hair *et al.*, 2012; Hulland, 1999). Hair *et al.*, (2014) suggest the rule of thumb for holding items with loadings between .40 to .70; it was revealed that out of 40 items, 12 were deleted because of lower loadings below the threshold of 0.40. Thus, in the whole model, only 28 items were retained as they had loadings between 0.501 and 0.951 (see Table 4.10 and Appendix E5).

4.9.2 Internal Consistency Reliability

Internal consistency reliability refers to the extent to which all indicators on a particular (sub) scale are evaluating the same concept (Bijttebier *et al.*, 2000; Sun, *et al.*, 2007). The most frequently used estimators of the internal consistency reliability of an instrument in organizational research are Cronbach's alpha coefficient and composite reliability coefficient (e.g., Peterson & Kim, 2013). Even though, there is a lot debates concerning the best technique to calculate reliability, the Cronbach's alpha coefficient is the universal method used although it may underestimate reliability (Sekaran & Bougie, 2010; Hair *et al.*, 2010). But, composite reliability is typically used in conjunction with SEM-PLS models, this technique is more vigorous than Cronbach's alpha (Fornell & Larcker, 1981). In this study, composite reliability coefficient is selected to ascertain the internal consistency reliability of measures.

Table 4.10

Indicator Loadings, Internal Consistency Reliability, and Convergent Validity

Latent constructs & indicators	Standardized Loadings	Composite Reliability	Cronbach Alpha	Average Variance Extracted (AVE)
Firm Performance (PER)				
PER01	.610	.774	0.774	.526
PER02	.730			
PER03	.669			
PER04	.778			
PER05	.746			
Competitive advantage				
CA02	.674	.880	0.841	.513
CA03	.731			
CA04	.707			
CA05	.780			
CA06	.706			
CA07	.610			
CA12	.712			
Entrepreneurial orientation				
EO1	.690	.823	.731	.539
EO4	.663			
EO5	.794			
EO6	.781			
Human capital				
HN01	.808	.876	.823	.588
HN02	.837			
HN03	.807			
HN04	.745			
HN05	.616			
Social network				
SN01	.736	.894	.863	.548
SN02	.667			
SN03	.730			
SN04	.790			
SN05	.785			
SN06	.745			
SN07	.721			

Another reasons justified the use of composite reliability coefficient as against the Cronbach's alpha coefficient, its offers a much less biased estimate of reliability

because Cronbach's alpha assumes all items equally contribute to its construct without considering the actual role of individual loadings (Barclay, Higgins, & Thompson, 1995; Gotz, Liehr-Gobbers, & Krafft, 2010).

However, internal consistency reliability interpretation with composite reliability coefficient was built on the rule of thumb given by Bagozzi and Yi (1988) in addition to Hair *et al* (2011) who recommends composite reliability coefficient must be at least .70 and above. Table 4.10 illustrates the composite reliability coefficients of the constructs. As shown in Table 4.10, the composite reliability coefficient of each constructs ranged from .774 to .894, with each exceeding the minimum acceptable level of .70, signifying satisfactory internal consistency reliability of the measures (Hair *et al.*, 2011; Bagozzi & Yi, 1988).

4.9.3 Convergent Validity

Convergent validity can be defined as the extent to which items accurately epitomize the intended construct and actually correlate by other measures of the same construct (Hair *et al.*, 2006). The validity of a particular measurement scale is regarded as convergent as soon as indicators/items loadings are highly (i.e., > 0.5) on their related constructs (Hair *et al.*, 2010). Chin (2011) proposed three assessment principles as follows:

- (1) The factor loadings of all indicators achieved level of significance;
- (2) The indicators Composite Reliability (CR) is higher than 0.7; and
- (3) The Average Variance Extracted (AVE) is higher than 0.5.

Also, as suggested by Fornell and Larcker (1981) Convergent validity was evaluated using the AVE of each construct under study. To realize adequate convergent validity, Chin (1998) indorses the AVE for each underlying construct must be .50 or more. Following Hair *et al.*, (2010) the AVE values (see Table 4.10) revealed high loadings ($> .50$) on their individual constructs, signifying acceptable convergent validity in this study.

4.9.4 Discriminant Validity

Discriminant validity is another criterion, which assesses the degree to which a variable is truly not the same from other variables (Bryne, 2010; Hair *et al.*, 2010). It can also be seen as the extent to which a particular construct differ from other constructs (Duarte & Raposo, 2010). Therefore, a greater level of discriminant validity suggests that a variable is distinct and captures some phenomena that other variables do not .In this study, discriminant validity was ascertained using square root of AVE and it should be greater than the correlations among latent constructs (Fornell and Larcker, 1981). This was realize by comparing the relationships among the constructs with the square roots of AVE. Furthermore, discriminant validity was ascertain using Chin’s (1998) standard by comparing the items loadings with other items in the cross loadings, see table 4.12.

Table 4.11
Latent Variable Correlation and Square Roots of Average Variance Extracted

Latent Variable	BP	CA	EO	HN	SN
BP	.725				
CA	.398	.716			
EO	.420	.696	.734		

HN	.416	.614	.517	.767	
SN	.386	.712	.622	.587	.740

As shown in Table 4.10, the values of the AVE are between the range of .513 and .587, suggesting acceptable values. In Table 4.11, the correlations between the latent constructs are compared with square root of AVE. Table 4.11 indicates that the square root of the AVE are greater than the correlations between the latent constructs, indicating discriminant validity is adequate (Fornell & Larcker, 1981).

Table 4.12
Cross loadings

Indicators	BP	CA	EO	HN	SN
PER01	.700	.325	.331	.257	.316
PER02	.730	.264	.332	.247	.174
PER03	.668	.297	.269	.237	.346
PER04	.778	.284	.314	.308	.262
PER05	.746	.276	.282	.432	.297
CA02	.223	.675	.488	.365	.582
CA03	.298	.731	.505	.501	.541
CA04	.255	.707	.459	.401	.467
CA05	.268	.780	.511	.456	.528
CA06	.351	.706	.445	.502	.421
CA07	.266	.698	.482	.351	.407
CA12	.321	.712	.577	.476	.594
EO1	.235	.525	.690	.293	.397
EO4	.335	.380	.663	.434	.337

4.10 Assessment of Significance of the Structural Model

Having established the measurement model, this section examines the structural modelling with aim of establishing the relationship of the modelling as a total. It is crucial to mention that a most recent study conducted by Henseler and Sarstedt (2013) proposes that goodness-of-fit (GoF) index is not suitable for model validation (see also Hair *et al.*, 2014). For example, using PLS path models with simulated data, the authors show that goodness-of-fit index is not suitable for model validation because it cannot separate valid models from invalid ones (Hair, Ringle, & Sarstedt, 2013). In the light of the recent development, the present study adopted a two-step process to evaluate and report the results of PLS-SEM path, as suggested by Henseler, Ringle and Sinkovics (2009). The current study assessed the structural model. This study also applied bootstrapping method with 5000 bootstrap samples to assess the significance of the path coefficients (Hair *et al.*, 2014; Hair *et al.*, 2012; Hair *et al.*, 2011; Henseler *et al.*, 2009). Figure 4.6 and Table 4.13 therefore show the estimates for the full structural model.

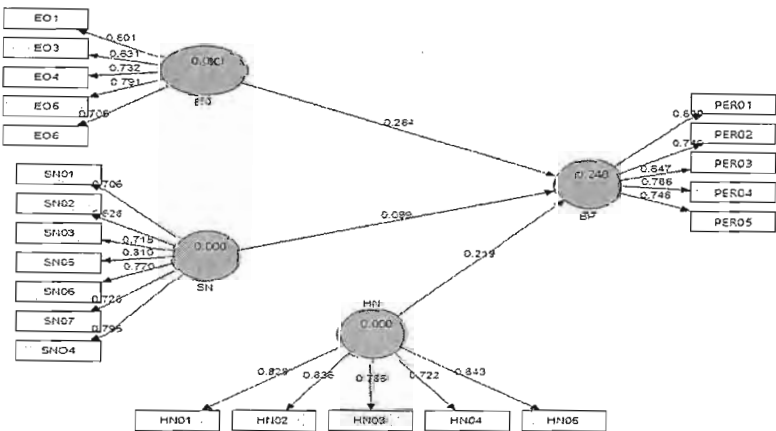


Figure 4.5 Algorithm Model

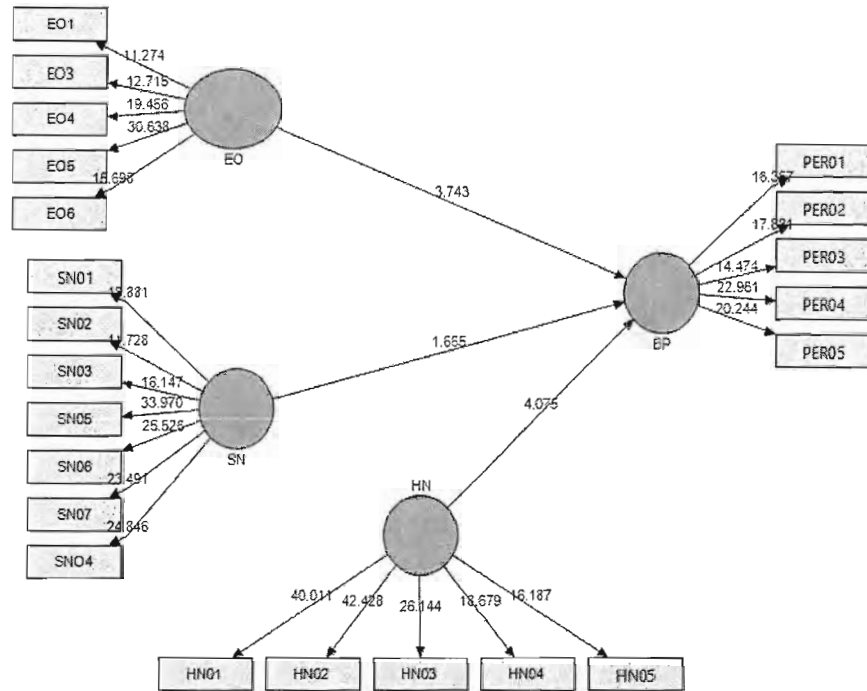


Figure 4.6 *Bootstrapping Model*

At the beginning, Hypothesis 1 predicted that entrepreneurial orientation is positively related to firm performance. Result in table 4.13 and figure 4.6 revealed a significant positive relationship between entrepreneurial orientation and firm performance. ($\beta = 0.264$, $t = 3.743$, $p < 0.000$), supporting Hypothesis 1

Table 4.13
Structural model assessment

Hypothesis	Relationship	Beta	SE	T-Value	P-Value	Findings
H1	Entrepreneurial orientation-> firm Performance	.264	.067	3.743	.000***	Supported
H2	Social Network -> firm performance	.099	.059	1.665	.052*	Supported
H3	Human capital -> Firm performance	.219	.054	4.075	.000***	Supported

Source: Researcher. Note: ***Significant at 0.01 (1-tailed), **significant at 0.05 (1-tailed), *significant at 0.1 (1-tailed)

Hypothesis 2 predicted that social network is positively related to firm performance. Result in table 4.13 and figure 4.6 indicated that social network and firm performance had a significant positive relationship with firm performance ($\beta = 0.099$, $t = 1.665$, $p < 0.052$), supporting Hypothesis 2. Similarly, Hypothesis 3 anticipated that human capital is positively associated to firm performance. As shown in Table 4.13 and figure 4.6, positive significant association between human capital and firm performance ($\beta = 0.219$, $t = 4.075$, $p < 0.000$) was found, indicating support for Hypothesis 3.

4.10.1 Assessment of Variance Explained in the Endogenous Latent Variables

This section discusses another important criterion for evaluating the structural model in PLS-SEM. The value of *R*-squared otherwise called coefficient of determination (Hair *et al.*, 2012; Hair *et al.*, 2011; Henseler *et al.*, 2009). The value of R^2 indicates the extent of variation in the DV(s) that can be clarify by one or more predictor variable (Hair *et al.*, 2010; Elliott & Woodward, 2007; Hair *et al.*, 2006). Even though, the satisfactory

level of R^2 value is subjected to the research context (Hair *et al.*, 2010), Falk and Miller (1992) suggest an R -squared estimation of 0.10 as a least adequate level. In addition, Chin (1998) recommends that R -square estimations of 0.67, 0.33, and 0.19 as substantial, moderate, and weak, respectively. Table 4.14 presents the R -squared values of the two endogenous variables.

Table 4.14

Variance Explained in the Endogenous Latent Variables

Latent Variables	Variance Explained (R^2)
Competitive advantage	59%
Firm performance	25%

Source: Researcher.

As presented in the above Table 4.14, the research model explains 59% of the total variance in competitive advantage and 25% of the total variance in firm performance. This advocates that the three sets of exogenous latent variables (i.e., entrepreneurial orientation, social network and human capital) collectively explain 59% and 25% of the variance of the competitive advantage and firm performance respectively. Therefore, resulting from Falk and Miller’s (1992) and Chin’s (1998) the criteria, the two endogenous latent variables showed acceptable levels of R -squared values, which were considered as moderate and substantial respectively.

4.10.2 Assessment of Effect Size (f^2)

According to Chin, (1998) Effect size (f^2) explain the relative effect of a specific or individual variable on the dependent variable(s) by means of changes in the R -squared. It is estimated as the increase in R -squared of the variable to which the path is

associated, relative to the variable's percentage of unexplained variance (Chin, 1998). Hence, the effect size could be explain using the below formula (Cohen, 1988; Wilson, Callaghan, Ringle, & Henseler, 2007):

$$\text{Effect size: } f^2 = \frac{R^2 \text{ included} - R^2 \text{ Excluded}}{1 - R^2 \text{ Included}}$$

Cohen (1988) defines effect size values of 0.02, 0.15 and 0.35 as having weak, moderate, strong effects respectively. Table 4.15 shows the respective effect sizes of the variables of the structural model.

Table 4.15
Effect Size (f2) of the Latent Variables on Cohen's (1988) Recommendation

Latent variables	R-squared		f-squared	Effect Size
	Included	Excluded		
Entrepreneurial orientation	.248	.215	.044	Small
Social network	.248	.244	.005	None
Human capital	.248	.220	.037	Small

As indicated in Table 4.15, the effect sizes for the entrepreneurial orientation, social network and human capital were .044, .005 and .037, respectively. Therefore, following Cohen's (1988) guideline, the effects sizes of these three exogenous latent variables on Firm performance can be considered as small, none and small respectively.

4.10.3 Assessment of Predictive Relevance

Another calculation of the structural model is the model's predictive relevance ability. The predictive relevance can be evaluated using Stone-Geisser criterion, which assumes that an inner model needs to offer evidence of prediction of the endogenous

latent construct's indicators (Henseler *et al.*, 2009). Therefore, Q2 assessment can be conducted via Stone-Geisser's Q2 test which can be measured using blindfolding procedures (Hair, Hult, Ringle, & Sarstedt, 2013; Henseler *et al.*, 2009). Therefore, this study used Stone-Geisser test to assess the Q2, through blindfolding procedure to attain the cross-validated redundancy measure for dependent variable (Hair Jr. *et al.*, 2013). Table 4.16 presents the cross-validated redundancy for competitive advantage and firm performance.

Table 4.16
Construct Cross-Validated Redundancy

Total	SSE	SSE	1-SSE/SSO
Firm performance BP	1415.000	1236.273	.126
Competitive advantage CA	1981.000	1357.764	.315

As shown in Table 4.16, the Q^2 for all variables are more than zero, suggesting model predictive relevance (Chin, 1998; Henseler *et al.*, 2009).

4.10.4 Assessment of Goodness-of-Fit Index (GoF)

Another evaluation criterion is the global Goodness-of-Fit (GoF) Index. However, there are many arguments on the usefulness of this criterion on the validating model (Hair Jr. *et al.*, 2013; Henseler & Sarstedt, 2013). In contrast, Tenenhaus, Amato and Esposito Vinzi (2004) recommend that GoF can be applied to PLS-SEM to compare performances produced by models. Tenenhaus *et al.* (2004) proposed GoF as the geometric mean of the average communalities and the average endogenous latent variables. Nevertheless, other researchers argued that no such global measure of GoF

is available for PLS-SEM (Hair Jr *et al.*, 2014; Hair Jr. *et al.*, 2013; Henseler & Sarstedt, 2013; Sarstedt *et al.*, 2014). In addition, Henseler and Sarstedt (2013) challenged the applicability of GoF in PLS-SEM as their simulation result indicated that it is not useful of for model validation, but can be useful to assess how well the model can explain different sets of data.

4.10.5 Testing Moderating Effect

In order to detect and estimate the strength of the moderating effect of human capital on the association among entrepreneurial orientation, social network and firm performance. The present study applied a product indicator approach using PLS SEM (Chin, Marcolin, & Newsted, 2003; Helm, Eggert, & Garnefeld, 2010; Henseler & Chin, 2010a; Henseler & Fassott, 2010b). The approach is considered suitable in this study because the moderating variables is continuous (Rigdon, Schumacker, & Wothke, 1998).

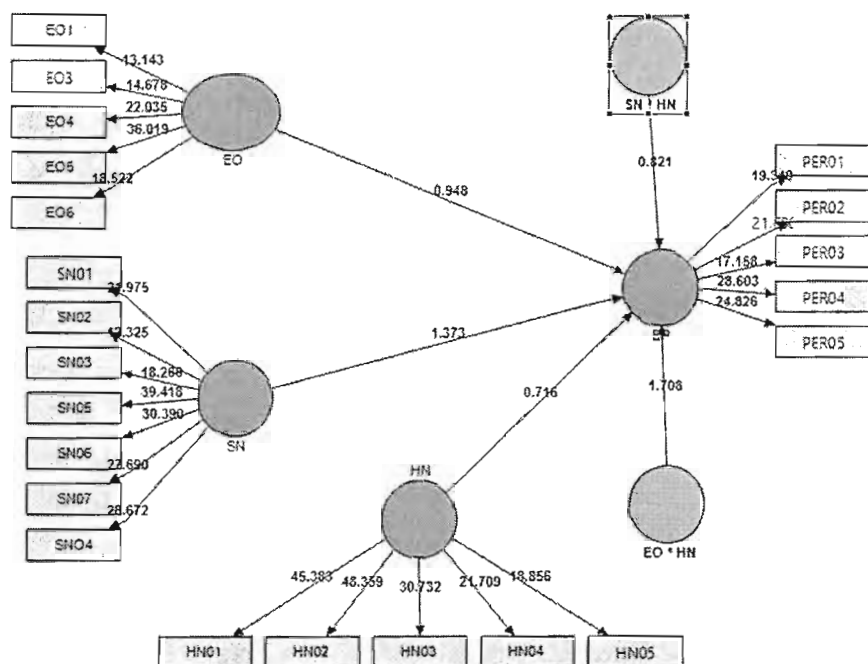


Figure 4.7 Moderation Algorithm

According to Henseler and Fassott, (2010a) “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” (p. 721).

Table 4.17
Moderation result

	Hypothesis	Beta	Standard Error	T Statistics	P value	Decision
H4	EO * HN -> BP	1.058	0.619	1.709	0.044**	Supported
H5	SN * HN -> BP	-0.288	0.409	0.704	0.241	Not-supported

Source: Researcher. Note: ***Significant at 0.01 (1-tailed), **significant at 0.05 (1-tailed), *significant at 0.1 (1-tailed)

To apply approach of product indicator in the moderating effect of Human capital on the association among entrepreneurial orientation, social network and firm performance testing. The product terms among the indicators of independent variables and indicators of the moderator variable need to be created, hence, these product terms would be used as indicators of the interaction term in the structural model (Kenny & Judd, 1984). Additionally, to determine the strength of the moderating effects, the current study applied Cohen's (1988) guidelines for determining the effect size. Table 4.17 shows the estimates after applying the applied a product indicator approach to study the moderating influence of human capital on the association among exogenous and endogenous latent variable.

It could be recall that Hypothesis 4 stated that human capital moderates the association between EO and firm performance. Specifically, this relationship is stronger for SME with higher human capital than it is for firms with low human capital. As expected, the results shown in Table 4.17, Figure 4.7 indicated that the interaction terms representing entrepreneurial orientation x human capital ($\beta = 1.058$, $t = .704$, $p < .244$) was statistically significant. Therefore, Hypothesis 4 was fully supported. Information from the path coefficients was used to plot the moderating effect of human capital on the association between EO and firm performance, following the procedures recommended by Dawson (2014). A figure 4.8 show that the association between entrepreneurial orientation and firm performance is stronger for organizations with high human capital than it is for firm with low human capital.

It could be recall that Hypothesis 6 stated that human capital moderates the association between social network and firm performance. Precisely, this mean that the relationship

is stronger for SME with higher human capital than it is for firms with low human capital. The results shown in Table 4.17 indicated that the interaction terms representing entrepreneurial orientation x human capital ($\beta = -.288, t = .71, p < .241$) was statistically not significant. Therefore, Hypothesis 5 was fully rejected. The result indicates no moderating effect of human capital on the association between social network and firm performance.

4.10.6 Determining the Strength of the Moderating Effects

Cohen's (1988) effect sizes were used to determine the strength of the moderating effects of human capital on the association among entrepreneurial orientation, social network and firm performance. The strength of the moderating effects was calculated by comparing the coefficient of determination (*R*-squared value) of the main effect model with the *R*-squared value of the full model that includes all variables and moderating variable (Henseler & Fassott, 2010a; Wilden, Gudergan, Nielsen, & Lings, 2013).

Consequently, the strength of the moderating effects was assessed using the following formula (Cohen, 1988; Henseler & Fassott, 2010a):

$$\text{Effect size} = \frac{R^2 \text{ model with moderator} - R^2 \text{ Model without moderator}}{1 - R^2 \text{ Moderator}}$$

As recommended by Cohen, (1988) and Henseler and Fassott, (2010a) the effect size of moderation (f^2) values of 0.02, 0.15 and 0.35 can be considered as weak, moderate and strong respectively. But Chin *et al.* (2003) argued that a low effect size does not necessarily mean that the underlying moderating effect is insignificant. "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.*, 2003p. 211). The strength of the moderating effects of human capital is presented in Table 4.17.

Base on the Henseler and Fassott’s (2010b) and Cohen’s (1988) rule of thumb for determining the strength of the moderating effects, Table 4.18 shows that the effect size for firm performance was .0725, suggesting that the moderating effect was small (c.f., Henseler, Wilson, Götz, & Hautvast, 2007; Wilden *et al.*, 2013).

Table 4.18
Strength of the Moderating Effects Based on Cohen’s (1988) and Henseler and Fassott’s (2010) Guidelines

Endogenous Latent Variable	R-squared		f-squared	Effect size
	Included	Excluded		
Firm performance	0.269	0.216	0.0725	Small

4.11 Mediation testing

The Mediation test conducted to determine if a mediator construct could significantly carry the ability of a predictor to have an effect on a criterion variable (Ramayah *et al.*, 2011). Equally, mediation test can identify the indirect influence of the IV on the DV through a mediator variable. Competitive advantage is considered as a mediating variable on the relationship between entrepreneurial orientation, social network and performance of SMEs in Nigeria under this study. According to Baron & Kenny, (1986) the variable can be regarded as a mediator based on the following conditions:

- 1) When there is significant relationship between IV and DV.

- 2) When the IV variation significantly accounts for the DV.
- 3) Mediator variable variation significantly accounts for the DV variation, and;
- 4) When previous conditions are controlled, significant relationship will no longer exists.

Additionally, Hayes and Preacher (2010) suggest that mediation analysis in multivariate analysis can be conducted through many methods including:

- (1) Simple techniques that consist of the causal steps approach (Baron & Kenny, 1986) or the Sobel test (Sobel, 1982); and
- (2) Newer approaches that demand just fewer unrealistic statistical assumptions. Include among others, include the distribution of the product method (MacKinnon, Lockwood, & Williams, 2004), and re-sampling approaches such as bootstrapping (Bollen & Stine, 1990; Preacher & Hayes, 2004, 2008; Shrout & Bolger, 2002).

On the other hand, the latest mediation analysis approach is the bootstrapping method, where the bootstrapping generates an empirical representation of the distribution of the sample of the indirect effect (Hayes, 2009; Rucker, Preacher, Tormala, & Petty, 2011). The mediation test used for this study was based on the PLS approach; hence, the hypotheses were tested using the PLS-SEM technique (Wold, 1985). Mediation has viewed by Baron and Kenny (1986) from either Full or partial. Full mediation arises when after including the mediator variable in the equation the direct relationship between IV and DV became negative. While a partial mediation is after including the

mediator variable in the equation the direct relationship between IV and DV became positive.

Even though, PLS uses path analysis and treats simultaneously the direct and indirect effects, similar to other mediation techniques, apart from it there is no any method for treating mediating models simultaneously. The PLS SEM technique has been discoursed in literature as a predominantly well suitable method for mediation studies (Chin, 1998b; Hair *et al.*, 2011; Hayes & Preacher, 2010; Zhao, Lynch JR., & Chen, 2010).

The mediation method of bootstrapping begins with estimating the path model of a direct link between the independent variables and the dependent variable without the mediator variable. Under this stage, the path models include the path coefficients and t-values using PLS-SEM algorithm and bootstrapping procedure (Hair Jr. *et al.*, 2013). In the next stage, the path model is assessed with the mediator variable. The emphasis is on whether the mediator relationship and independent relationship, and mediator and dependent variable relationship are significant. This is essential but not adequate to conclude mediation effect. Finally, the multiplication of the two significant path coefficients is divided by the standard deviation of the product to observe the significance of the indirect effect. The advantages and justification of this method on mediation have been underline by numerous studies, for example (Hair Jr. *et al.*, 2013; Hayes, 2012; Hayes & Preacher, 2010; Preacher & Hayes, 2008; Zhao *et al.*, 2010). For example, the conditions of Baron and Kenny (1986) on mediation fail to involve the use of standard deviations (Hayes & Preacher, 2010). In addition, the Sobel test requires the assumption of normal sample distribution of the indirect effect. Nevertheless, the

sampling distribution of the independent variables' effect on the mediator and the mediator's effect on the dependent variable is asymmetric (Preacher & Hayes, 2007). The distribution of the product strategy is a little difficult to use without the aid of tables and requires some assumptions of normal sampling distribution (Hayes, 2009).

Shrout and Bolger (2002) argue that bootstrapping methods could be use to take care of the previously mentioned errors as it allows the distribution of the indirect effect to be tested empirically. Zhao *et al.* (2010) maintain that bootstrapping approach solves these problems by generating an empirical sampling distribution ($a \times b$). In addition, Hayes and Preacher (2010) and Preacher and Hayes (2008) conclude that the main advantage of bootstrapping approach is that it does not require any assumptions about the sampling distributions of the indirect effect or its product. Equally, bootstrapping result offers interval estimate of a population parameter that cannot be acquired via other mediation tests (Lockwood & MacKinnon, 1998). Based on the advantage of bootstrapping method over other methods, Hayes & Preacher (2010) and Hair Jr. *et al.*, (2013) suggest testing the significance of the mediation using bootstrapping methods. In general, in PLS bootstrap mediation calculation, "T" represents the coefficient significance level. Mediation is established if T value is equal to or greater than 1.96 at 0.05 significance level using two tail test, or 1.64 at 0.05 significance level using one-tail test (Hair *et al.*, 2010).

4.11.1 Direct and Indirect Effects

This segment shows results before presenting the actual mediation effect of the study the PLS structural direct and indirect effects. Albers, (2010) viewed indirect effects as

the summation of both direct and indirect effects between two particular constructs. Also, Hayes and Preacher (2010) maintained that indirect effect is concerned with the effect of X on Y through an intervening variable M. Additionally, in PLS model, before confirmation of actual mediation, presenting the total effects is essential because it provides a complete image of the role of mediating construct as well as insights to practitioners about cause-effect relationships (Hair *et al.*, 2013).

Table 4.19
Direct and Indirect Effects

Path coefficient	Beta	SE	T-Value	P-Value	Findings
E0 -> BP	.269	.064	3.991	.00	Supported
SN -> BP	.099	.060	1.634	.05	Supported
CA -> BP	.401	.062	6.515	.00	Supported
EO -> CA	.386	.045	8.672	.00	Supported
SN -> CA	.353	.040	8.763	.00	Supported

The outcomes of the indirect analysis as shown in the above Table 4.19 and Figures 4.9 and 4.10 reveal indirect association between all the variables (Entrepreneurial orientation, and social network) and Performance.

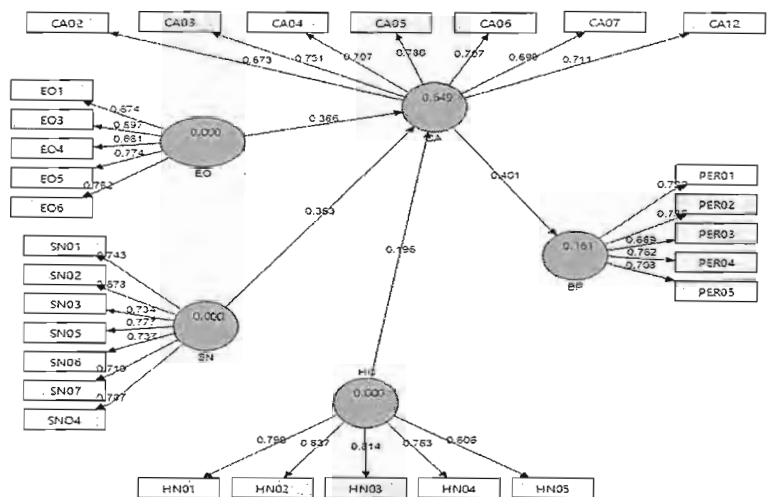


Figure 4.8 PLS Algorithm for Exogenous Variable Direct & Indirect Effects on Performance

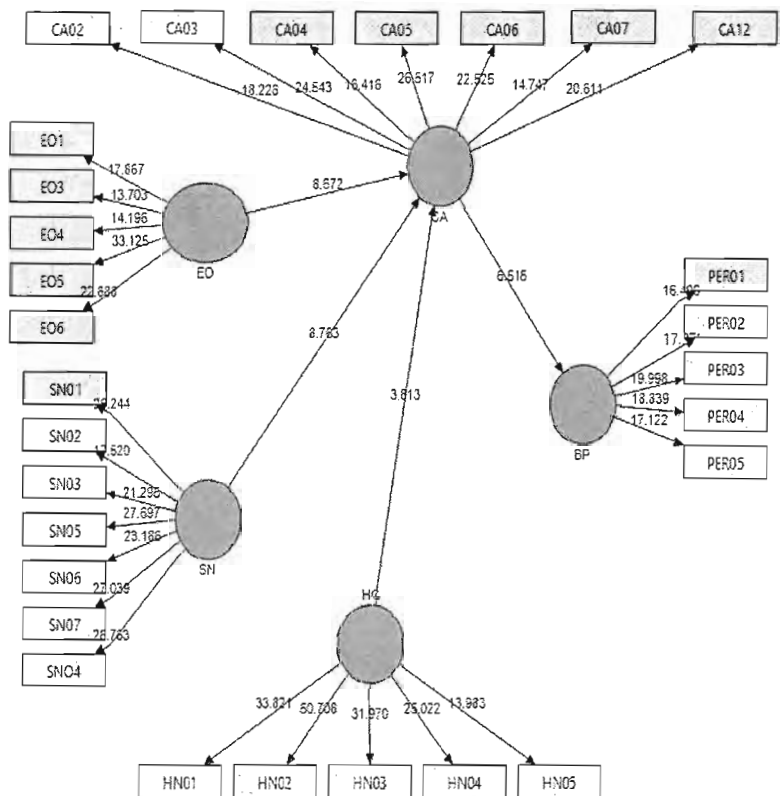


Figure 4.9 PLS Bootstrap Exogenous Variable Direct & Indirect Effects on Performance

The results of the indirect effects as shown in Table 4.19 and depicted in Figures 4.9 show significant indirect effects; thus, signifying potential mediating effects of competitive advantage on the association among exogenous constructs (entrepreneurial orientation, social network, human capital) and firm performance. Subsequent segments will present the actual results of the mediation tests for all the three proposed mediating models.

4.11.2 Mediation Results

This study used PLS-SEM model through the means of bootstrapping analysis with formulated hypotheses to elaborate on mediating effect (Hair *et al.*, 2011; Zhao *et al.*, 2010). Additionally, mediation was measure by multiplying the average of paths —*a*” and —*b*” and then dividing the obtained value by the standard error of the paths (Kock, 2011) as shown in this formula:

$$T = \frac{a \times b}{S(a \times b)}$$

Therefore, this formula was used to determine the mediating effects of competitive advantage on all the two relationships of this study, where:

- *a* stand for the value of relationships between independent variable and mediating variable,
- *b* stand for the value of the relationship between mediating and dependent variables, and
- *S (a x b)* stand for the standard deviation of (*a*) and (*b*) above.

In order to ascertain the significance of their coefficients and standard error, all paths (i.e. a and b) should be obtained from the PLS bootstrapping (Hair *et al.*, 2013; Kock, 2011).

Generally, PLS bootstrap mediation calculation, “T” signifies the coefficient significance level. Mediation is established if T value is equal to or greater than 1.96 at 0.05 significance level using two tail test, or 1.64 at 0.05 significance level using one-tail test (Hair *et al.*, 2010). Additionally, in order to evaluate the degree of the indirect effect, this study followed Helm, Eggert and Garnefeld’s (2010), and Iacobucci and Duhachek’s (2003) Variance Accounted For (VAF) value, which signifies the ratio of the indirect influence to the total influence. The formulae for measuring VAF is shown below:

$$VAF = \frac{a * b}{a * b + c}$$

Where a = is coefficient value between independent variable and mediating variable,

b= is coefficient value between mediating variable and dependent variable,

c= is coefficient value between independent variable and dependent variable.

This study confirmed the mediating role of competitive advantage on the positive influence of EO, and SN on firm performance with SmartPLS 3.0 (Ringle *et al.*, 2014) using the bootstrapping procedure with 5,000 sub-samples and 283 cases. After including the mediator construct, competitive advantage in the model, the bootstrapping result of 5,000 samples was used to multiply path a and b. Then the product of the two significant paths was divided by the standard error of the product of the two paths to find the t-value. It is therefore clear from Table 4.12 that competitive advantage mediates the positive relationship between EO and firm performance (β .0164; t =4.903; p <.000); and SN and firm performance (β .181; t =5.168; p <.000).

Table 4.20

Mediation Results

Hypothesis	Relationship	Beta	Standard Error	T-sta.	p- value	Decision
H6	EO->CA*CA-> BP	.164	.033	4.903	.000***	Supported
H7	SN->CA*CA->BP	.181	.035	5.168	.000***	Supported

Note. Values are calculated using PLS bootstrapping routine with 283 cases and 5000 samples. ***indicates the item is significant at the $p < 0.01$ level.

4.11.2.1 Mediation Result for Entrepreneurial orientation

Based on the table 4.19 above, this segment shows results of the mediating influence of competitive advantage on the association between entrepreneurial orientation and firm performance. The result reveals statistically and moderately significant, signifying mediating effect of competitive advantage, ($\beta = .164$; $t = 4.903$, $p < .000$), this assessment is in line with Zhao *et al.* (2010) procedure of mediation testing as this result discloses complimentary mediation, meaning that mediation exist significantly in both direct and indirect effects. Competitive advantage is a medium through which entrepreneurial orientation influences firm performance. Therefore, based on this study existence of SME competitive advantage serve as a way through which EO influence their performance.

In addition, this study assessed the size of the indirect effect i.e. mediating influence of CA on the association among EO and firm Performance using Variance Accounted For (VAF).

$$\text{VAF (EO)} = \frac{0.164}{0.164 + 0.433} = 0.3785 = 38\%$$

A VAF value of 38% of the total influence of EO on firm performance is explained by indirect influence of CA and the mediation of CA is partial mediation.

4.11.2.2 Mediation Result for Social network

Based on the table 4.20 above, this segment shows results of the mediating influence of competitive advantage on the association among social network and firm performance. The result reveals statistically and moderately significant, signifying mediating effect of competitive advantage, ($\beta = .181$; $t = 5.168$, $p < .000$), this assessment is consistent with Zhao *et al.* (2010) procedure of mediation testing as this result discloses complimentary mediation, meaning that mediation exist significantly in both direct and indirect influence.

Also, the study assess the size of the indirect effect using Variance Accounted For (VAF).

$$\text{VAF(SN)} = \frac{0.181}{0.181 + 0.099} = 0.6464 = 65\%$$

A VAF value of 65% of the total influence of social network on firm performance is explained by indirect influence of Competitive advantage, and the mediation of competitive advantage is partial mediation.

Table 4.21

Summary of Hypotheses

	Hypotheses	Result
H1	There is significant positive relationship between entrepreneurial orientation and firm performance	Supported
H2	There is significant positive relationship between social network and firm performance	Supported
H3	There is significant positive relationship between human capital and firm performance	Supported
H4	Human capital moderate the relationship between entrepreneurial orientation and firm performance	Supported
H5	Human capital moderate the relationship between social network and firm performance	Not supported
H6	Competitive advantage mediate the relationship between entrepreneurial orientation and firm performance	Supported
H7	Competitive advantage mediate the relationship between social network and firm performance	Supported

4.12 Summary of Findings

This chapter present the justification for the use of PLS path modelling to measure the theoretical model in this study. As identified in the assessment of significance of the path coefficients, the key findings on the constructs of the study were presented. In general, self-report techniques has provided considerable support for the moderating and mediating roles of human capital and competitive advantage on the association

among entrepreneurial orientation, social network on firm performance. Specially, the path coefficients revealed a significant positive association between: (1) entrepreneurial orientation and firm performance, (2) social network and firm performance, and (3) human capital and performance.

Additionally, relating to the moderating effects of human capital on the association between entrepreneurial orientation, social network and firm performance, PLS path coefficients revealed that the formulated hypothesis on the moderation of human capital on the association between EO and firm performance were significant. In contrast, the moderating role of human capital on the association between social network and firm performance was not significant. In addition, hypotheses of indirect relationship (mediation) were tested. The result of the three hypotheses reveals that competitive advantage mediate the relationship between entrepreneurial orientation, social network and firm performance. The next chapter will discuss further the findings, implications, limitations, suggestions for future research directions and conclusions.

CHAPTER FIVE

DISCUSSION, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

In the previous chapter, the results of the study were presented. The main aim of this section is to discuss the main research outcomes in the context of research questions, hypotheses, and literature review presented in the preceding chapter. Precisely, this section is organized into four parts as follows. Section 2 recapitulates the findings of the study. Section 3 discusses the findings of the study based on the underpinning theories and previous studies. Theoretical, methodological and practical implications of the study are discussed in Section 4. In Section 5, limitations of the study are noted and based on the limitations; the recommendations for future research directions are made. In the final section, conclusion is drawn. In the previous chapter, the findings of this study were presented.

5.2 Executive summary of the Study's Findings

The primary objective of this study is to study the moderating and mediating influence of human capital and competitive advantage on the association among EO, SN and firm performance. The perception, attitude and behavior of managers/owners of the small and medium enterprises in Nigeria were the sources of information for testing several hypotheses involved in the study which lead to the achievement of the research objectives. The findings are discussed based on the research objectives, which were

hypotheses in line with the research questions that were earlier developed from the problem statement. Studying these associations will offer avenues to enhance performance of SMEs. The model is supported by Resource-Based view (RVB) theory, which advocates that firm performance is influenced by firm's valuable resources.

The findings of the study show that EO & Firm Performance has Significant positive relationship (Smart & Conant 2011; Clercq, Dimov & Thongpanl 2010); SN & Firm Performance has significant positive relationship (Surin, *et al*, 2014; Watson, 2012; Boso, *et al*, 2013); HC & Firm Performance has significant positive relationship (Surin, *et al*, 2014; Augusto Felício, Couto, & Caiado, 2014; Lin, Huang, Du, & Lin, 2012; Samad, 2013); HC has significant moderation role on the relationship between EO and FP which is consistent with RBV, RDV and SNT theory, and Non-significant moderation finding between SN, HC and FP are also in corroborates with Surin & Wahab, 2013. Lastly, the findings show a significant mediation role on the relationship between EO, SN and FP which is consistent with RVB theory, and Social network theory (Barney, 1991; Das & Teng, 2000; Barney, 2001; Barney *et al*, 2011).

5.3 Discussion of the findings

This section will discuss the research findings on the associations found between EO, SN, HC, CA, and performance of SMEs in Nigeria. It will also discuss the moderating and mediating role of human capital and competitive advantage on the association between entrepreneurial orientation, social network and the performance of SMEs in Nigeria.

5.3.1 The Influence of entrepreneurial orientation on firm performance

The first objective of this study is to examine the relationship between Entrepreneurial orientation and firm performance of SMEs in Nigeria. In order to achieve this objective, hypothesis one, which predicted a positive relationship between entrepreneurial orientation and firm performance, was tested in line with PLS. As predicted, it was found that there was significant relationship between the two constructs (entrepreneurial orientation and firm performance). It therefore demonstrates that Hypothesis one is supported. The significant positive relationship shows that as entrepreneurial orientation increase SME performance will also increases. On the other hand, this show that a higher level of entrepreneurial orientation would result in a higher level of SMEs performance in Nigeria and vice-versa.

The bootstrapping result against the firm performance shows that, entrepreneurial orientation revealed a beta coefficient score of 264 compare to the score of .099 and .219 as recorded by social network and human capital respectively. The result therefore point out that entrepreneur's human capital contribution to the SMEs performance in Nigeria context was high as compare to the contribution of social network and entrepreneurial orientation to performance. Therefore, this shows that in the context of Nigeria high performing SMEs rely more on entrepreneurial orientation than social network and human capital.

This significant positive relationship finding between entrepreneurial orientation and SMEs performance of Nigeria is in line and strongly supported by Smart and Conant

(2011); Naala and Rosli (2016) and Clercq, Dimov and Thongpanl (2010) who found significant positive effects of entrepreneurial orientation on firm performance. It is also in consistent with the past literatures. For example, Covin and Slevin (1989, 1991) maintains that high levels of entrepreneurial orientation may have positive effects on organizational performance. The significant relationship between entrepreneurial orientation and firm performance in this study validates the research hypothesis and provide answer to the research question. In essence, the findings verified that embracing entrepreneurial orientation by SMEs in Nigeria could lead to enhance their firm performance. The findings also indicates that in managing and leading their businesses, owners/managers showed innovativeness and creativity, anticipating future problems and opportunities with proactive work related initiatives and willing to take risk and failures while executing new processes at their respective firm. These valuable entrepreneurial orientation attributes are needed by managers/owners of SMEs in Nigeria to sharpen their decision-making abilities and problem solving towards affecting performance (Lumpin, 2007; Druker, 2002).

The finding also provides support for RBV theory (Barney, 1991; Das & Teng, 2000; Barney, 2001; Barney *et al.*, 2011) assertion on strategic orientation which places the important of strategic orientation in influencing performance which consecutively may contribute to the success of the organization. The study highlight the importance of SMEs owner/manager to possess innovation, risk taking and proactiveness in order to realize performance especially in small scale industry in Nigeria. In addition, the finding of the study shows that entrepreneurs that are innovative, proactiveness and take risk are more likely to perform better and improve their firm performance.

5.3.2 The Influence of Social Network on Firm Performance

Secondly, the second objective of this study was to identify the relationship between social network and firm performance. This objective seeks to test the second hypothesis, which states that there is positive relationship between social network and SMEs performance in Nigeria (H2). The finding of the study revealed a significant positive relationship between social network and firm performance. Therefore, hypothesis two is supported. A significant and positive relationship shows that social network of an entrepreneur also helps to increase the performance of SME in Nigeria. Surin, *et al*, 2014; Watson, 2012; Boso, *et al*, 2013, discovered that social network permits businesses to obtain numerous resources in order to grow. Watson (2007) establish that entrepreneurs through strong tie relationships with their suppliers can enable them to get resources below market price. This finding seems to suggest that SMEs owners/managers that have social network system are more likely to improve their performance than those without.

The bootstrapping result against the firm performance shows that, social network revealed a beta coefficient score of .099 compare to the score of .264 and .219 as recorded by entrepreneurial orientation and human capital respectively. Therefore, the result shows that the contribution of social network to the SMEs performance in Nigeria context was least weighted as compared to the contributions of entrepreneurial orientation and human capital to performance.

The finding revealed that social network is positively related to firm performance. This result is in consistent with the study of Surin, Wahab, Hafez, Halil, and Timothy, (2014); Watson, (2012) and Boso, Story, and Cadogan, (2013). The finding also provides support for RBV, RDT and social network theory (Barney, 1991; Das & Teng, 2000; Barney, 2001; Barney *et al.*, 2011) view, which states the important of social network in improving their performance and concentrates on the relationship between owners/managers with other people and parties (Barnes, 1954). In the beginning, under the RBV, the present positive relationship between social network and firm performance result is supported in the sense that the main view of the theory is that firms possess competitive advantage through development of resources that are diversely distributed and peculiar, and a subset of those that lead to superior long-term performance (Barney, 1991; Das & Teng, 2000; Barney, 2001; Barney *et al.*, 2011). Valuable and rare resources can lead to the creation of competitive advantage. That advantage can be sustained over longer periods to the extent that the firm is able to safeguard against resource transfer, imitation, or substitution. In general, many empirical studies using the theory have strongly supported the resource-based view (Das & Teng, 2000).

Furthermore, the second theory which is being frequently referred to as the Resource Dependency Theory (RDT) suggested that those entrepreneurs facing problem regarding shortage of resources will seek to obtain resources through the networks being established with other contacts. These contacts consist of suppliers, banks, government agencies, competitors, creditors, relatives and friends (Barringer & Harrison, 2000; Premaratne, 2001). These form the basis for networks of the

entrepreneurs and key components for the success of the firm. Lastly, Social Network Theory (SNT) explains how the social structure of relationships around a person, a group, or an organization affects people behaviors (Barnes, 1954). It concentrates on the relationship between people, rather than on people's characteristics and attributes. The strength of relationship between the owner-manager with other people and parties such as suppliers, friends, customers, government agencies, trade organizations and social organizations determines the resources that they are able to access. In addition, the findings show that entrepreneurs network with family, friends, relatives, government and business associate are more likely to perform better. This is not suppressing by looking at the way people of Nigeria most especially Kano use their networks in achieving their objective.

5.3.3 The influence of Human Capital on Firm performance.

The third objective of this study is to examine the relationship between human capital and firm performance. In order to achieve objective three, Hypotheses 3 was formulated which predicted that human capital is positively related to firm performance. Thus, the hypothesis was tested using PLS path coefficient analysis. The result of the analysis indicates that human capital is positively related to firm performance. Thus, hypotheses three is supported. A significant and positive relationship suggests that as human capital increase, the performance will also increase.

The bootstrapping result against the firm performance shows that, human capital revealed a beta coefficient score of 0.219 compare to the score of .264 and .099 as

recorded by entrepreneurial orientation and social network respectively. The result therefore points out that entrepreneur's human capital contribution to the SMEs performance in Nigeria context was high as compare to the contribution of social network to performance. Therefore, this shows that in the context of Nigeria high performing SMEs rely on human capital than social network. In addition, the result shows that the contribution of human capital to the SMEs performance in Nigeria context was least weighted as compared to the contributions of entrepreneurial orientation to performance.

The finding also provides support for RBV's theory assertion, which places the important of organizations resources in influencing performance, which consecutively may contribute to the success of the organization (Barney, 1991; Das & Teng, 2000; Barney, 2001; Barney *et al.*, 2011; Wright, McMahan, & McWilliams, 1994). The study highlights the importance of SMEs owner/manager to possess skills, experience, education and capabilities in order to realize performance especially in small-scale industry in Nigeria. In addition, the finding of the study shows that entrepreneurs that have human capital are more likely to perform better and improve their firm performance.

Additionally, the significant positive relationship between human capital and firm performance reported in the present study is not surprising because previous researchers also supported and reported similar results Surin, *et al.*, (2014); Augusto Felício, Couto, and Caiado, (2014); Lin, Huang, Du, and Lin, (2012). Similarly, Samad, (2013)

reported that human capital aspects are related and contribute significantly to firm performance.

The above sections, discussed the direct effects of the exogenous variables (entrepreneurial orientation, social network and human capital) on firm performance. The subsequent, sections discuss the moderating and mediating effects; i.e. the role of human capital and competitive advantage on the relationship between the entrepreneurial orientation and social network and firm performance.

5.3.4 Moderating Effect of Human Capital on the relationship between Entrepreneurial orientation and Firm performance.

The fourth research objective of the study was to find out whether human capital moderates the relationship between entrepreneurial orientation and firm performance. The objective directs to the testing of fourth hypothesis, which states that human capital moderates the relationship between entrepreneurial orientation and firm performance. The aim is to find out whether human capital can strengthen the relationship between entrepreneurial orientation and firm performance of SMEs in Nigeria. To achieve this objective and answer the research questions, the previous hypothesis was formulated. Specifically, this relationship is stronger for firm with high human capital than those with low human capital. The result of moderation test for human capital on the relationship between entrepreneurial orientation and firm performance indicated that human capital moderate the relationship between entrepreneurial orientation and firm performance. Therefore, hypothesis four is accepted. The finding is in line with the

previous study of Batjargal, (2007) Cantner, and Stuetzer, (2010) who also used human capital as moderating variable.

5.3.5 Moderating Effect of Human Capital on the relationship between Social network and Firm performance.

The fifth research objective of the study was to find out wither human capital moderates the relationship between social network and firm performance. The objective directs to the testing of fifth hypothesis, which states that human capital moderates the relationship between social network and firm performance. The aim is to find out wither human capital can strengthen the relationship between social network and firm performance of SMEs in Nigeria. To achieve this objective and answer the research questions, we formulated the previous hypothesis.

The result of moderation test for human capital on the relationship between social network and firm performance indicated that human capital does moderate the relationship between social network and firm performance. Hence, the finding is unable to demonstrate significant moderating role of human capital on social network and firm performance. Therefore, hypothesis four is rejected. This finding is unexpected and suggests that entrepreneur/managers human capital does not increase their social network in Nigerian SMEs. This is because of the culture and other environmental factors in Kano, Nigeria, that are peculiar to them. The level of human capital of SME owner and or manager does not serve as a means of their relationship with their relative, suppliers and firm partners, this is because majority of businesses in Kano are owned

and manage by the mostly Hausa and Fulani and this people have similar culture and religion with the communities and as such owners/managers of SMEs does not require much human capital in order to relate with them.

The finding is also in line with the study of (Surin & Wahab, 2013) who found mixed results on the moderating effect of human capital on firm performance. This study also proposes human capital as a moderator on the relationship between entrepreneurial orientation, social network and firm performance in line with RBV theory (Barney, 1991; Das & Teng, 2000; Barney, 2001; Barney *et al.*, 2011) and later studies (Batjargal, 2007; Cantner & Stuetzer, 2010). Similarly, Hayton and Zahra (2005) find in an empirical study on high technology new ventures in the USA that the relationship between venturing activities and innovation is moderated by the human capital diversity of the top management teams.

5.3.6 Mediating Effect of Competitive Advantage on the relationship between Entrepreneurial Orientation and Firm Performance

In this section, a research hypothesis (H6) was formulated in order to answer research questions and achieve six-research objective, which stated that To determine whether competitive advantage mediate the relationship between entrepreneurial orientation and firm performance. This objective also directs to the testing of six hypothesis (H6) which states that competitive advantage mediates the relationship between entrepreneurial orientation and firm performance in small and medium enterprises in Nigeria. Using PLS-SEM, the results from PLS coefficient path output reveals that competitive

advantage have a significant mediation influence on the relationship between EO and firm performance satisfies the conditions of mediation as pointed by Hayes, (2009), Hair et al., (2010) and Baron and Kenny (1986). The result of mediation effect established that the hypothesis (H6), found to be significant and therefore is accepted. This implies that competitive advantage influence SMEs to increase their performance. The finding helps to fill the gap in the literature with regard to the effect/role of competitive advantage as a mediator in the relationship between entrepreneurial orientation and firm performance, specifically in Nigeria SMEs context. A relationship is assumed to be mediated if independent/predictor variable has effects on the dependent/outcome variable through a mediator variable (Baron & Kenny, 1986). Therefore, the results shows that entrepreneurial orientation first has an effect on the mediator variable of competitive advantage, and this in turn influences the dependent variable performance (Hair *et al.*, 2010; Miles & Shevlin, 2001).

The finding indicates that entrepreneurial orientation enhances performance of SMEs in Nigeria; however, when competitive advantage is added as a mediator, the direct significant positive relationship between entrepreneurial orientation and firm performance was reduced. This shows that managers/owners of Nigerian SMEs that practice entrepreneurial orientation influence their firm performance indirectly by invoking competitive advantage. Hence, it can be said that managers/owners of SMEs competitive advantage plays an important role through which entrepreneurial orientation can enhance their firm performance.

The finding shows a mediated relationship on the effect of entrepreneurial orientation on firm performance where competitive advantage serves as a channel in enhancing the relationship effect between entrepreneurial orientation and firm performance. In the context of this study, when owners/managers of SMEs in Nigeria utilize their approach of entrepreneurial orientation to affect their firm performance, they also intensify their competitive advantage, and in doing so, they augmented competitive advantage by the entrepreneurial orientation resulted in higher performance. This because the effect on firm performance was not directly caused by entrepreneurial orientation alone, but also indirectly cause through the mediated influence of competitive advantage.

Based on the finding of the study, the strength of the association between entrepreneurial orientation and firm performance was still significant with the inclusion of a mediator variable of competitive advantage because the beta value had increase from 0.269 before to 0.386 and this indicates a full mediation in the relationship between entrepreneurial orientation and firm performance (Hair *et al.*, 2010; Baron & Kenny, 1986). In addition, this implies that entrepreneurial orientation has a direct influence toward firm performance and at the same time indirectly exerts some of its influence towards performance through competitive advantage.

In addition, the fact that results concerning the mediating effect represent the major contributions for this study; the questions of why and how mediation of competitive advantage take place could also be answered by theoretical explications rather than past studies. For that reason, significant theories including Resource Base View theory have provided theoretical bases for the new findings.

The present mediation result is supported under the RBV in the sense that the main view of the theory is that firms possess competitive advantage through development of resources that are diversely distributed and peculiar, and a subset of those that lead to superior long-term performance (Barney, 1991; Das & Teng, 2000; Barney, 2001; Barney *et al.*, 2011). Valuable and rare resources can lead to the creation of competitive advantage. That advantage can be sustained over longer times to the extent that the firm is able to safeguard against resource transfer, imitation, or substitution. In general, many empirical studies using the theory have strongly supported the resource-based view (Das & Teng, 2000).

Tovstiga and Tulugurova (2009) confirm that the firm's internal resource base is a determining factor of competitive advantage in small and medium firms. The literature further affirms that the firm's competitive advantage and performance are largely influenced by the entrepreneurial behavior of the firm (Wiklund & Shepherd, 2003; Zahra & Covin, 1995).

In consistent with the Resource Base-View, it is found that exogenous variable (entrepreneurial orientation) significantly influence firm performance through competitive advantage. Finally, the findings revealed that competitive advantage is the mechanism through which entrepreneurial orientation influence the performance of SMEs in Nigeria. Therefore, existence of SMEs competitive advantage serves as a way through which entrepreneurial orientation influence performance of small and medium enterprises performance in Nigeria.

5.3.7 Mediating Effect of Competitive Advantage on the relationship between social network and Firm Performance

In this section, a research hypothesis seven (H7) was formulated in order to answer research questions and achieve seven-research objective, which stated that: To determine whether competitive advantage mediate the relationship between social network and firm performance. This objective also directs to the testing of seven hypothesis (H7) which states that competitive advantage mediates the relationship between social network and firm performance in small and medium enterprises in Nigeria. Using PLS-SEM, the results from PLS coefficient path output reveals that competitive advantage have a significant mediation influence on the relationship between social network and firm performance satisfies the conditions of mediation as pointed by Hayes, (2009), Hair *et al.*, (2010) and Baron and Kenny (1986). The result of mediation effect established that the hypothesis (H7), found to be significant and therefore is accepted. This implies that competitive advantage influence SMEs to increase their performance. The finding helps to fill the gap in the literature with regard to the effect/role of competitive advantage as a mediator in the relationship between social network and firm performance, specifically in Nigeria SMEs context. A relationship is assumed to be mediated if independent/predictor variable has effects on the dependent/outcome variable through a mediator variable (Hair *et al.*, 2010, Baron & Kenny, 1986). Therefore, the results show that social network first has an effect on the mediator variable of competitive advantage, and this in turn influences the dependent variable firm performance (Hair *et al.*, 2010; Miles & Shevlin, 2001).

The finding indicates that social network enhances performance of SMEs in Nigeria; however, when competitive advantage is added as a mediator, the direct significant positive relationship between social network and firm performance was reduced. This shows that managers/owners of Nigerian SMEs that exercise social network influence their firm performance indirectly by invoking competitive advantage. Hence, it can be said that managers/owners of SMEs competitive advantage play an important role through which social network can enhance their firm performance.

The finding shows a mediated relationship on the effect of social network on firm performance where competitive advantage serves as a channel in enhancing the relationship effect between social network and firm performance. In the context of this study, when owners/managers of SMEs in Nigeria utilize their social network to affect their firm performance, they also intensify their competitive advantage, and in doing so, they augmented competitive advantage by the social network resulted in higher performance. This because the effect on firm performance was not directly caused by social network alone, but also indirectly cause through the mediated influence of competitive advantage.

Based on the finding of the study, the strength of the association between social network and firm performance was still significant with the inclusion of a mediator variable of competitive advantage because the beta value increase from 0.99 before to 0.353 and this indicates a partial mediation in the relationship between social network, and firm performance (Hair *et al.*, 2010; Baron & Kenny, 1986). In addition, this implies that entrepreneurial orientation has a direct influence toward firm performance and at the

same time indirectly exerts some of its influence towards performance through competitive advantage.

The result concerning the mediating effect represents the major contributions for this study; the questions of why and how mediation of competitive advantage takes place could be answered by theoretical explications rather than past studies. For that reason, significant theories including Resource Base View (RBV), Resource Dependency Theory (RDT) and Social Network Theory (SNT) have provided theoretical bases for the new finding.

In the beginning, under the RBV, the present mediation result is supported in the sense that the main view of the theory is that firms possess competitive advantage through development of resources that are diversely distributed and peculiar, and a subset of those that lead to superior long-term performance (Barney, 1991; Das & Teng, 2000; Barney, 2001; Barney *et al.*, 2011). Valuable and rare resources can lead to the creation of competitive advantage. That advantage can be sustained over longer periods to the extent that the firm is able to safeguard against resource transfer, imitation, or substitution. In general, many empirical studies using the theory have strongly supported the resource-based view (Das & Teng, 2000).

Furthermore, the second theory which is being frequently referred to as the Resource Dependency Theory (RDT) suggested that those entrepreneurs facing problem regarding shortage of resources will seek to obtain resources through the networks being established with other contacts. These contacts consist of suppliers, banks,

government agencies, competitors, creditors, relatives and friends (Barringer & Harrison, 2000; Premaratne, 2001). These form the basis for networks of the entrepreneurs and key components for the success of the firm.

Social Network Theory (SNT) explains how the social structure of relationships around a person, a group, or an organization affects people behaviors (Barnes, 1954). It concentrates on the relationship between people, rather than on people's characteristics and attributes. The strength of relationship between the owner-manager with other people and parties such as suppliers, friends, customers, government agencies, trade organizations and social organizations determines the resources that they are able to access.

Tovstiga and Tulugurova (2009) confirm that the firm's internal resource base is a determining factor of competitive advantage in small and medium firms. The literature further affirms that the firm's competitive advantage and performance are largely influenced by the entrepreneurial behavior of the firm (Wiklund & Shepherd, 2003; Zahra & Covin, 1995).

In consistent with the Resource Base View (RBV), Resource Dependency Theory (RDT) and Social Network Theory (SNT), the study found that the exogenous variables (social network) significantly influence firm performance through competitive advantage.

Finally, the findings revealed that competitive advantage is the mechanism through which entrepreneurial orientation influence the performance of SMEs in Nigeria. Therefore, existence of SMEs competitive advantage serves as a way through which social network influence performance of small and medium enterprises performance in Nigeria. In addition, the findings of mediation test revealed that competitive advantage is the mechanism through which social network influence the performance of small and medium enterprises. Therefore, the existence of SMEs competitive advantage serves as a way through which social network influence the performance of SMEs in Nigeria.

5.4 Theoretical Implications

This research has discovered a number of theoretical contributions for the entrepreneurial orientation, social network, human capital, and competitive advantage. The study establishes empirical evidence for theoretical relationships posited in the research framework. Specifically, it highlights the moderating role of human capital and mediating role of competitive advantage on the association between Entrepreneurial orientation, social network and performance of SMEs in Nigeria. This is supported by Suliyanto and Rehab (2012) who suggested the inclusion of external environment factor as moderating variable in firm performance study. Awang, *et al.*, (2009) recommend the inclusion of external environment in entrepreneurship future studies. Thus, Hereath and Mahmood (2013) suggest moderator and mediator inclusion in strategic orientations to performance relationship. The study has seven hypotheses, out of which six hypotheses are supported, while one is not.

Previous studies on performance of SMEs have investigated the effect of a number of variables on performance (Richard *et al.*, 2008). In addition, as discuss in the previous chapters, prior studies on the association between EO, social network, human capital, competitive advantage and firm performance revealed consistent finding. However, combination of EO, SN, HC and CA into single model influencing SMEs performance has received little attention. Based on the foregoing, the study examined structural relationships between EO, SN, HC and CA as relevant variables affecting performance positively in a single model. The results show that EO, SN and HC have a positive impact on firm performance. The study add further knowledge on the importance of human capital and competitive advantage in predicting firm performance. Therefore, the study has contributed to the RVB, social network, and RD theory by providing empirical evidence to support the assertion of these theories. For instance, RVB postulates that performance of the firm is influenced by the firm intangible and tangible resources. In this context EO, SN, HN and CA are regarded as organizational resources. In addition, the findings of this study contribute to the entrepreneurial literature and strategic management by clarifying the role of human capital and competitive advantage plays.

Therefore, inclusion of competitive advantage and examining the causal relationship between EO and firm performance is likely to contribute to the body of knowledge. To this end, the study's outcomes confirm that there is a causal positive association between EO and firm performance. In line with this, it could be said that this study empirically validates the recommendation of Hereath and Mahmood, (2013); and

Awang *et al.*, (2009) that external environment can serve as a mediating variable in firm performance relationship.

This research established that the human capital moderate the relationship between EO and firm performance in Nigerian SMEs based on the recommendation of Heralth and Mahmood (2013) who suggested a moderator variable inclusion in strategic orientation to performance relationship.

Several studies on SMEs performance were conducted in specific SME sector such as Agriculture, manufacturing, construction, mining, etc., but the present study covers entire SME sector (Long, 2013; Polat & Mutlu, 2012; Tang & Tang, 2012). Thus, the study is among the few that covers the entire sector of SMEs especially in Nigeria.

Lastly, review of past literature on SMEs performance relationship suggests that the vast majority of research was examines in the US, Europe, Asia, Eastern Europe and Latin America thereby ignoring African countries like Nigeria. Equally, even in the aforesaid countries and regions, many researchers have concentrate their studies on large firms (Heralth & Mahmood 2013; Wales *et al.*, 2013). Therefore, locating this study in Nigeria, Africa, is hoped to improve the understanding of SMEs performance in Africa and other developing countries.

5.5 Practical Implications

Based on the study findings, the current research has contributed several practical implications in relation to entrepreneurship in the context of Nigeria. The study findings

would be importance to policy makers such as Central Bank of Nigeria, Small and Medium enterprise development agency of Nigeria (SMEDAN), Nigeria Bureau of Statistics (NBS) in designing the policies and programs on entrepreneurship in the country.

The result of this study can benefit practitioners to understand and present adequate indication for confirming a significant relationship between the major constructs, moderating and mediating constructs. The practical recommendation was drawn logically from the statistical findings. Owners/managers of SMEs are provided with practical recommendations in order to have understanding on the implication of their commitment to entrepreneurial orientation, social network, and human capital in relation to firm performance.

Consequently, this research gives empirical evidence that entrepreneurial orientation which consist of innovativeness, proactive and risk-taking is significantly related to firm performance. This shows that owners/managers of SMEs should be more concerned on keeping innovativeness, risk-taking and proactiveness in improving their performance. Therefore, in line with this, policy makers should give more emphasis entrepreneurial orientation as would most likely improve their performance. Social network was found to have a significant positive effect on firm performance. The implication of this is that entrepreneurs that have more network with the government, suppliers, family, and friends tends to perform better than those with less. Therefore, managers/owners of SMEs and policy makers can enhance the performance of SMEs by focusing on social network.

The present study has contributed practical implications in terms of human capital management practices in the context of Nigerian SMEs. This research gives empirical evidence that human capital, which consist of age, skills, qualification and working experience, is significantly related to firm performance. This shows that owners/managers of SMEs should be more concerned on human capital in improving their performance. Therefore, in line with this, policy makers should give more emphasis human capital which is most likely improve SMEs performance.

Finally, the findings also help owners/managers of SMEs and policy makers to improve the firm performance, gain competitive advantage and develop good strategies for the business development through given the empirical tested outcome of some SME performance determinants.

5.6 Methodological Implications

The present study has a number of methodological implications. One of the methodological contributions is that; previous studies on the performance of SMEs have mainly used SPSS and or AMOS, but the current study use PLS-SEM 3.0 and 2.0 (Ringle *et al.*, 2014) to produce the results. Few studies use PLS-SEM to the best knowledge of the researcher.

The measurement scales of the variables in this study were adopted from the earlier studies as deliberated in the operationalization section. Consequently, repeating them in another context is necessary to confirm the reliability and validity (Long, 2013;

Mahmood & Yusif, 2012) Cronbach's alpha reliability was examined in this study and found to be above minimum yardstick. Another methodological contribution of this study is related to using PLS path modeling to assess each variable in terms of composite reliability, convergent validity, as well as discriminant validity. Properties studied were individual item reliability, composite reliability and average variance explained (AVE) of each latent variable and found to be satisfactory above the required threshold. Convergent validity was measured by assessing the value of AVE of each latent variable.

Additionally, the discriminant validity was determined by way of comparing the correlations between the variables using square root of AVE. Therefore, this study represents an additional contribution to methodology of SMEs performance by establishing validity and reliability of the modified measures in the Nigerian context.

Equally, CFA and measurement model were also tested to assess the uni-dimensionality of the constructs. This study contributes by empirically established the reliability and validity of the adapted scales in the context of the SMEs in Nigeria. The PLS confirmatory and validation processes of the measurements for this study represent methodological contributions to the literature on entrepreneurial orientation, social network, human capital, competitive advantage and firm performance by providing additional validation about the constructs in a new methodological perspective. The study also found that return on asset (ROA) and returned on investment (ROI) items in firm performance construct are not well understood by SMEs in Nigeria, by removing

the irrelevant items from the original scale, this study purified and tested the measure of firm performance in Nigeria

Lastly, the present study established firm performance related variables as all variables were drawn from different sources thereby minimizing the problem of common method bias.

5.7 Limitations and Future Research Directions

Even though this study has provided support for a number of the hypothesized relationships between the exogenous and endogenous variables, the findings have to be interpreted with consideration of the study's limitations. Firstly, the current study adopts a cross-sectional design for the survey in which respondents views was taking at one specific period and does not allow causal inferences to be made from the population (Sekaran & Bougie, 2010). Hence, future studies need to consider longitudinal design to measure the theoretical constructs at different points in time to ratify the outcomes of this study.

Secondly, the present study adopted quantitative method and rely on questionnaire as the only instrument used in data collection. The respondents may not always be willing to answer questions properly. Therefore, the responses may not accurately and consistently measure the variables under study. The upcoming studies should combine both quantitative and qualitative approaches to perform a comprehensive investigation on SMEs performance in Nigeria.

Thirdly, it is also significant to note that the SMEs performance data reported in this study was subjective. Research demonstrates that subjective data is valid and reliable and could be an effective approach for assessing firm performance (Suliyanto & Rahab, 2012; Tang & Tang, 2012; Leitao & Franco, 2008). Zulkiffli and Parera (2011) suggested that, subjective measures tend to be applied in the context of SMEs performance since almost all SMEs decline to publicly disclose their real information. Nevertheless, subjective measure is vulnerable to many types of judgmental biases (Dunlop & Lee, 2004; Leitao & Franco, 2008). Although it was not easy to obtain objective data (Detert, Treviño, Burris & Andiappan, 2007), the use of objective measure would have clearly strengthened the results. Therefore, research is required to replicate the findings of the present study using objective measure of firm performance.

Fifth, the language choice selected for this study postured another constraint of this study. The survey instruments were translated only into Hausa language which result to higher involvements from Hausa/Fulani entrepreneurs even they consist the large number in the area of the study. Thus, this study would have involved more partaking from Ibo and Yoruba if the instruments were translated in their language. However, this limitation imposes only to Igbo and Yoruba SMEs owners/Managers who are not effective in English or Hausa. The upcoming studies should consider translating the instruments in Igbo and Yoruba languages. This might attract higher participation from them in Nigeria.

Six, the present study offers quite limited generalizability as it focused mainly on SMEs in Kano located in the north-west geopolitical zone of Nigeria. Consequently, additional

work is needed to include SMEs from other part of Nigeria in order to generalize the findings.

Seven, the research model was able to explain 26% of the total variance in firm performance and 67% of the total variance in competitive advantage, which means there are other latent variables that could significantly explain the firm performance. In other words, the remaining 74% and 33% of the variance for firm performance and competitive advantage respectively could be explained by other factors. Therefore, future research is needed to consider other possible factors that could increase the firm performance and competitive advantage.

Finally, no significant moderating influence of human capital on the association between social network and firm performance was found. Thus, more research is needed to investigate such mediator effects. The future research is necessary to verify whether other moderating variable may strengthen this relationship.

5.8 Conclusion

The main objective of the study is to examine the moderating and mediating role of human capital and competitive advantage on the relationship between EO, SN and performance of SMEs in Nigeria.

The first, second and third objectives is to study the relationship between entrepreneurial orientation, social network, human capital and firm performance in Nigeria. These objectives were achieved by testing three direct relationship hypotheses.

The study provides empirical of significance positive relationship between EO, SN, HC and firm performance. The fourth and fifth objectives are to determine whether human capital moderates the association between entrepreneurial orientation and firm performance, and to determine whether human capital moderate the association between social network and firm performance. The two hypotheses were tested in order to accomplish the stated objectives. The result of the analyses shows that human capital moderates the association between EO and firm performance. While in contrast, the result show that human capital does not moderate the relationship between social network and firm performance. Lastly, the remaining two objectives are to determine whether competitive advantage mediate the relationship between entrepreneurial orientation social network, and firm performance. This result was achieved by testing the three mediation hypotheses. The findings of the study show that competitive advantage mediate the relationship between EO, SN, and firm performance.

Furthermore, the study provides theoretical contribution as it has examined the moderating role of HC on the relationship between EO, SN and Firm performance; examined the mediating effect of CA on the relationship between EO, SN and Firm performance. The present study has also examined the relationship between EO, SN and Firm performance in a Nigeria context and setting. It has also found that, EO, SN, HC, and CA practices are fundamental and essential for competitive survival of organizations. This study suggests these variables are strongly recommended to be implemented for enhancement of the performance in SME sector. The new theoretical knowledge outcome will benefit industry, practitioners and to the body of knowledge. It's also give methodological contributions in terms of the area these variables influence

SMEs performance. The study also found that return on asset (ROA) and returned on investment (ROI) items in firm performance construct are not well understood by SMEs in Nigeria. Several directions for future research were provided based on the limitations of the study on the relationship between EO, SN and Firm performance.

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APPENDIX A: RESEARCH QUESTIONNAIRE



ACADEMIC RESEARCH QUESTIONNAIRE

Dear respondent

I am a PhD student in the above university, currently conducting a study on “Mediating and moderating role of the sources of competitive advantage and human capital on the relationship between entrepreneurial orientation, social network and the performance of SME’s in Nigeria. Under the supervision of Prof. Dr. Rosli Mahmood. Be assured that all the information will be treated as confidential and it will be used only for the purpose of this study.

Please contact the researcher for any enquiry about this research.

Thank you very much for your cooperation.

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Part A: Performance

In this section, we are interested in your assessment about the performance of your firm.

1. Please read the following statement and tick the number that indicate your company's performance based on the previous year's:-
1. Much lower. 2. Lowe. 3. Constant. 4. Higher. 5. Much Higher

		1	2	3	4	5
PER01	Sales growth rate					
PER02	Sales growth relative to competitors					
PER03	Employment growth					
PER04	Market value growth relative to competitors					
PER05	Gross profit					
PER06	Return on asset (ROA)					
PER07	Return on investment (ROI)					

PART B: Entrepreneurial orientation

In this section, we are interested in your assessment about the entrepreneurial orientation of your firm.

2. Please read the following statement and tick the number that accurately indicate your OPINION for the previous years.

1. Strongly disagree. 2. Disagree. 3. Neutral. 4. Agree. 5. Strongly agree

		1	2	3	4	5
EO1	Our firm favors a strong emphasis on innovation, research and development of new products/services.					
EO2	Our firm often introduces many new products/services at a high rate					
EO3	Changes in product or services in our firm are usually been quite dramatic.					
EO4	In dealing with competitors, our firm typically initiates actions which competitors initiate					
EO5	Compared with competitors, our firm is very often the first business to introduce new administrative techniques, products/services, operating technologies etc.					
EO6	Our firm typically adopts very competitive posture toward competitors.					
EO7	Our firm has a strong proclivity for projects with normal and high risk rates.					

EO8	Our firm believes that because of the nature of the environment, bold, wide ranging acts are necessary to achieve the objectives.					
EO9	When confronted with decision making situations involving uncertainty, our firm typically adopts a bold, aggressive posture in order to maximize the probability of exploiting potential opportunities.					

PART C: Social network

The following statements assess the social network of the respondent.

3. Please review each of the following statements and tick the item that best represent you.

1. Strongly disagree. 2. Disagree. 3. Neutral. 4. Agree. 5. Strongly agree

SN01	Discussions with family and relatives help me to build and improve our business	1	2	3	4	5
SN02	Discussions with my close friends help me to build and improve our business.					
SN03	My interactions with potential or existing customers help me to build and improve our business.					
SN04	My interactions with potential or existing invertors help me to build and improve our business.					
SN05	My interactions with potential or existing suppliers, distributors or manufacturers help me to build and improve our business.					
SN06	Our firms social and professional contacts help me build and improve our business					
SN07	My interaction with this people help our firm to be one of the first to hear new things/information.					

PART D: Human capital

4. Please circle one of the following responses to indicate your firms human capital level based on the given criteria:

1. Strongly disagree. 2. Disagree. 3. Neutral. 4. Agree. 5. Strongly agree

HN01	Our employees are highly skilled	1	2	3	4	5
HN02	Our employees are widely considered the best in our industry					
HNO3	Our employees are creative and bright					
HNO4	Our employees are experts in their particular jobs and functions					
HN05	Our employees are able to develop new ideas and knowledge					

Part E: Competitive Advantage

5. Please circle one of the following responses to indicate your firms competitive advantage level based on the given criteria:

1. Strongly disagree. 2. Disagree. 3. Neutral. 4. Agree. 5. Strongly agree

		1	2	3	4	5
CA01	Our products are difficult for competitors to copy.					
CA02	Our product designs are unique.					
CA03	Our products have a significant advantage over those of our competitors.					
CA04	Our ability to track changes in customer needs and wants is good.					
CA05	Our analysis of customer satisfaction with the competitors' products is good.					
CA06	Our surveillance of competitors is good.					
CA07	Our collection of strategic information about customers and competitors for use with strategic planning is good.					
CA08	Our firm has quickness of response to meeting changes in customer needs and wants					
CA09	Our firm has made efforts to make product/service changes to overcome customer dissatisfaction with existing products.					

CA10	Our firm has speed of dissemination of information in-house about competitors.					
CA11	Our firms response to competitive moves in the market place is good					
CA12	Our firms response to customer complaints is good					

Part F: Background of participant

1. Please check/select on the most appropriate number that BEST describe your situation.

1. Your position in this firm:

- a) Owner ()
- b) Manager ()
- c) Both ()

2. Age

- a) Below 30 ()
- b) 30 – 40 ()
- c) 41 – 50 ()
- d) Above 50 ()

3. Marital status

- a) Single ()
- b) Married ()
- c) Divorced ()

4. Gender

- a. Male ()
- b. Female ()

5. Highest education level

- a. Primary education ()
- b. Secondary Education ()
- c. Certificate/Diploma ()
- d. Degree/Bachelor ()
- e. Master ()
- f. PhD ()

Part F: Background of Business

1. Which industry that is best to describe your organization?

- a. Manufacturing and/or Manufacturing related services ()
- b. Services and/or Information & Communication Technology (ICT) ()
- c. Other (please specify) : _____

2. What is your sales turnover last year?

- a) Less than N50,000 ()
- b) N50,000 < N200,000 ()
- c) N200,000 < N 1 million ()
- d) 1 million < N 5 million ()
- e) N 5 million < N 10 million ()
- f) N10 million < N 25 million ()

3. How many full time employees do you have? ()

4. Please, state the type of your business

- a) Sole proprietorship ()
- b) Partnership ()
- c) Private-limited ()

5. State the location of the company

Appendix B: Reliability Test Results of measurement Tools (Pilot-Test)

I: Firm Performance (Pilot-test)

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.888	.890	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
PER01	22.09	19.669	.631	.651	.878
PER02	22.17	19.029	.708	.710	.869
PER03	22.37	16.534	.757	.602	.863
PER04	22.17	16.793	.757	.638	.863
PER05	21.83	19.264	.708	.620	.869
PER06	22.26	19.373	.643	.583	.876
PER07	22.09	19.845	.604	.506	.880

II: Entrepreneurial orientation

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.912	.914	9

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
EO1	29.34	28.761	.634	.685	.908
EO2	29.51	27.022	.761	.790	.898
EO3	29.49	28.375	.794	.725	.896
EO4	29.37	28.829	.745	.758	.899
EO5	29.20	28.341	.810	.838	.895
EO6	29.26	30.785	.562	.613	.911
EO7	29.29	28.504	.764	.695	.898
EO8	29.14	30.126	.688	.615	.904
EO9	29.17	30.382	.542	.748	.913

III: Social network

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.918	.918	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
SN01	22.17	23.264	.670	.712	.913
SN02	22.09	21.492	.793	.850	.901
SN03	22.09	23.728	.730	.680	.908
SNO4	22.11	21.339	.865	.790	.893
SN05	22.31	21.634	.748	.692	.906
SN06	22.09	22.198	.794	.681	.901
SN07	22.11	23.810	.642	.529	.916

IV: Human capital

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.875	.876	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
HN01	11.86	3.950	.774	.622	.825
HN02	12.09	3.728	.753	.614	.833
HN03	11.94	3.938	.735	.610	.839
HN04	12.03	4.029	.672	.524	.864

V: Competitive advantage

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.897	.905	12

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
CA01	40.21	30.290	.271	.511	.912
CA02	40.18	27.180	.704	.654	.884
CA03	40.18	28.938	.515	.554	.894
CA04	40.09	28.689	.588	.702	.890
CA05	40.06	28.542	.778	.815	.882
CA06	39.91	27.356	.897	.855	.875
CA07	40.03	27.423	.776	.880	.880
CA08	40.00	28.182	.787	.783	.880
CA09	39.97	27.908	.677	.735	.885
CA10	40.06	30.178	.568	.685	.891
CA11	39.94	31.269	.419	.635	.897
CA12	39.82	29.301	.589	.733	.890

APPENDIX C: MISSING VALUE

Missing Value.

	N	
	Valid	Missing
Position	283	0
Age	283	0
Employees	274	9
Marital status	282	1
Gender	282	1
Working experience	283	0
Ethnicity	283	0
Qualification	283	0
Turnover	283	0
Type of business	283	0
PER01	283	0
PER02	283	0
PER04	283	0
PER06	283	0
EO2	282	1
EO3	283	0
EO6	282	1
SN01	282	1
SN02	282	1
SN03	283	0
SNO4	282	1
SN06	283	0
HN01	283	0
HN03	283	0
HN04	283	0
HN05	283	0
CA03	283	0
CA04	282	1
CA05	283	0

CA07	283	0
CA09	282	1
CA10	282	1
CA11	283	0
CA12	283	0
PER03	281	2
PER05	281	2
EO4	283	0
EO5	283	0
PER07	283	0
EO7	281	2
EO8	282	1
SN05	283	0
SN07	283	0
CA01	283	0
HN02	283	0
CA02	282	1
CA06	283	0
CA08	282	1
industry	283	0
EO9	282	1
EO1	281	2

Result of replaced missing values of Variables

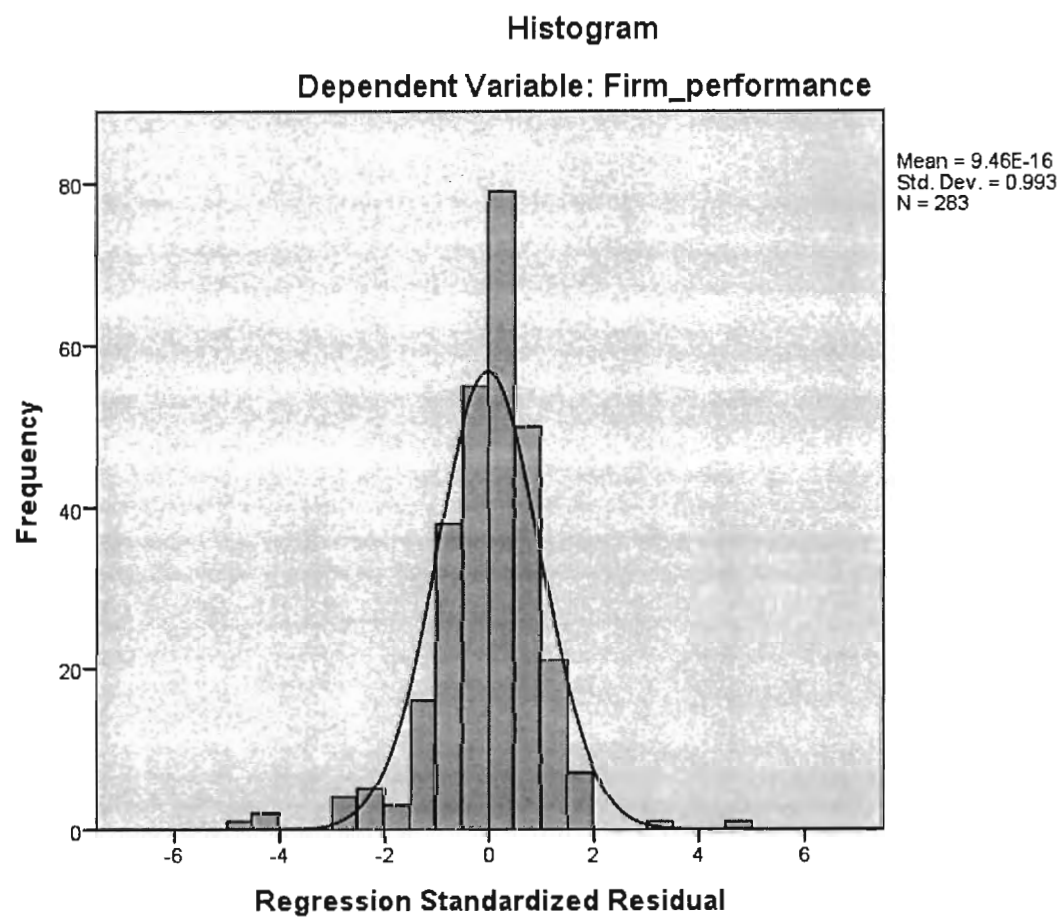
	Result Variable	N of Replaced Missing Values	Case Number of Non-Missing Values		N of Valid Cases	Creating Function
			First	Last		
1	EO2	1	1	283	283	MEDIAN(EO2,ALL)
2	PER06	0	1	283	283	MEDIAN(PER06,ALL)
3	SN01	0	1	283	283	MEDIAN(SN01,ALL)
4	SN03	0	1	283	283	MEDIAN(SN03,ALL)
5	SNO4	0	1	283	283	MEDIAN(SNO4,ALL)
6	CA04	0	1	283	283	MEDIAN(CA04,ALL)

7	CA09	0	1	283	283	MEDIAN(CA09,ALL)
8	CA10	0	1	283	283	MEDIAN(CA10,ALL)
9	PER03	0	1	283	283	MEDIAN(PER03,ALL)
10	PER05	0	1	283	283	MEDIAN(PER05,ALL)
11	EO7	0	1	283	283	MEDIAN(EO7,ALL)
12	EO8	0	1	283	283	MEDIAN(EO8,ALL)
13	CA02	0	1	283	283	MEDIAN(CA02,ALL)
14	CA08	0	1	283	283	MEDIAN(CA08,ALL)
15	EO9	0	1	283	283	MEDIAN(EO9,ALL)
16	EO1	0	1	283	283	MEDIAN(EO1,ALL)
17	Marital_status	1	1	283	283	SMEAN(Marital_status)
18	Gender	1	1	283	283	SMEAN(Gender)
19	Employees	9	9	283	283	SMEAN(Employees)
20	EO6	1	1	283	283	MEDIAN(EO6,ALL)
21	SN02	1	1	283	283	MEDIAN(SN02,ALL)

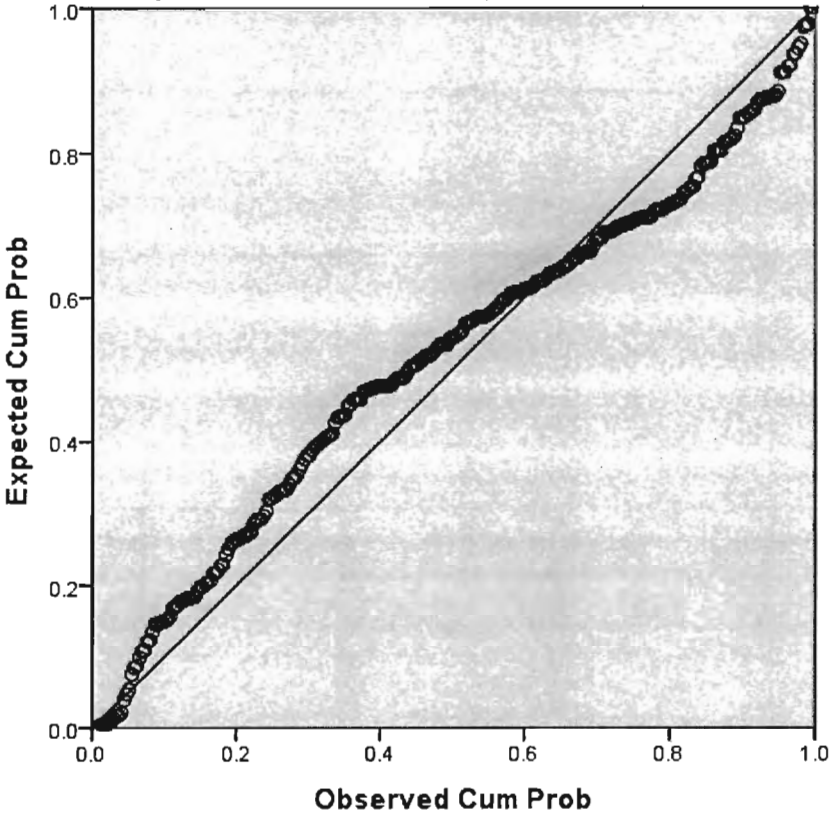
APPENDIX D: NORMALITY TEST

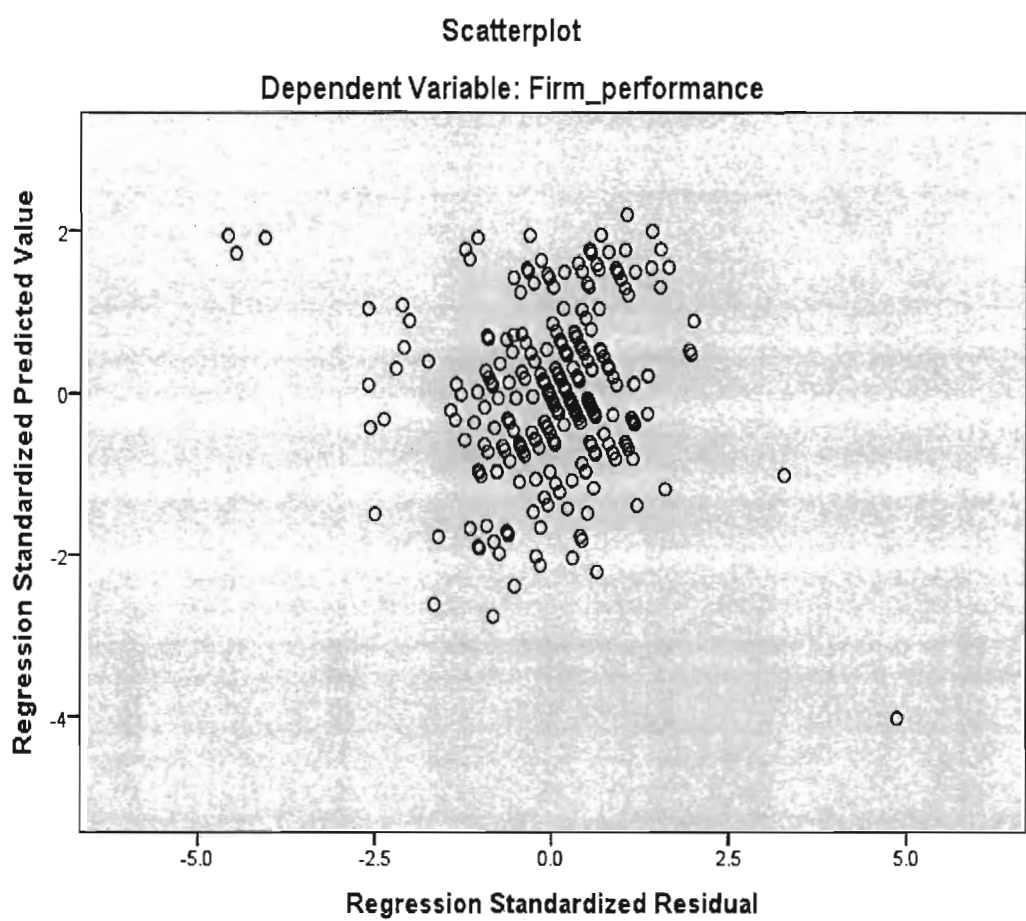
Descriptive Statistics									
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Firm_performance	283	1	5	3.45	.641	-.377	.145	.660	.289
Entr_orientation	283	1	5	3.49	.595	-.153	.145	.651	.289
social_network	283	1	5	3.71	.740	-.762	.145	.221	.289
Human_capital	283	1	5	3.66	.757	-.527	.145	.501	.289
Comp_advantage	283	1	5	3.59	.594	-.827	.145	1.635	.289
Valid N (listwise)	283								

Multiple Regression: Entrepreneurial orientation, Social network, Human capital and competitive advantage (Histogram, P-P Plot, and Scatter plot)

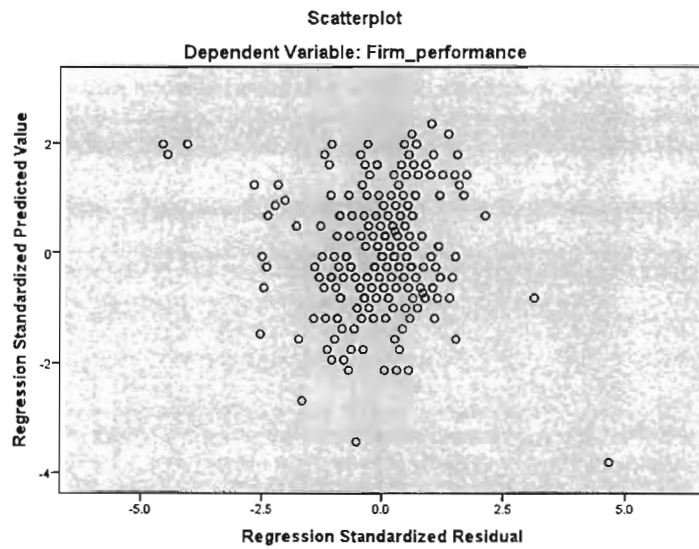
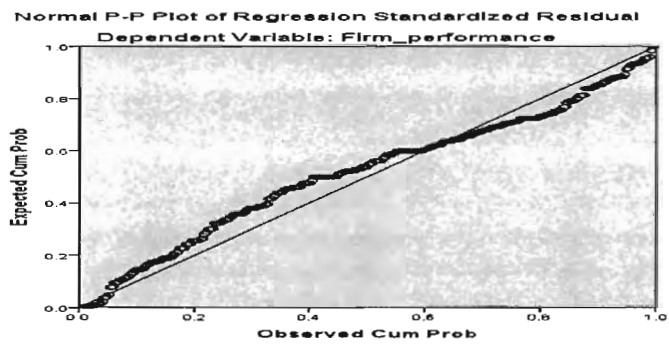
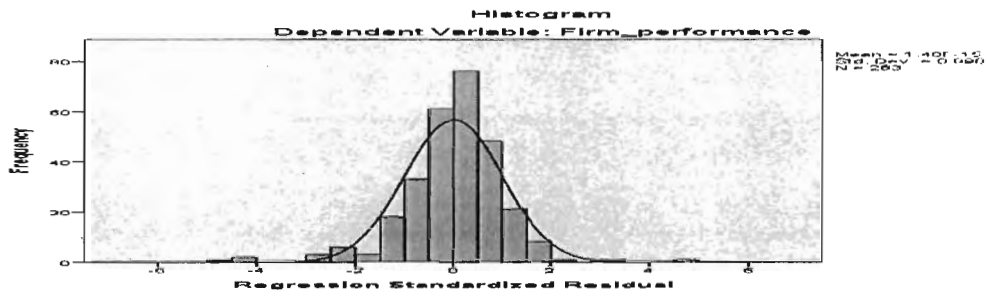


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Firm_performance

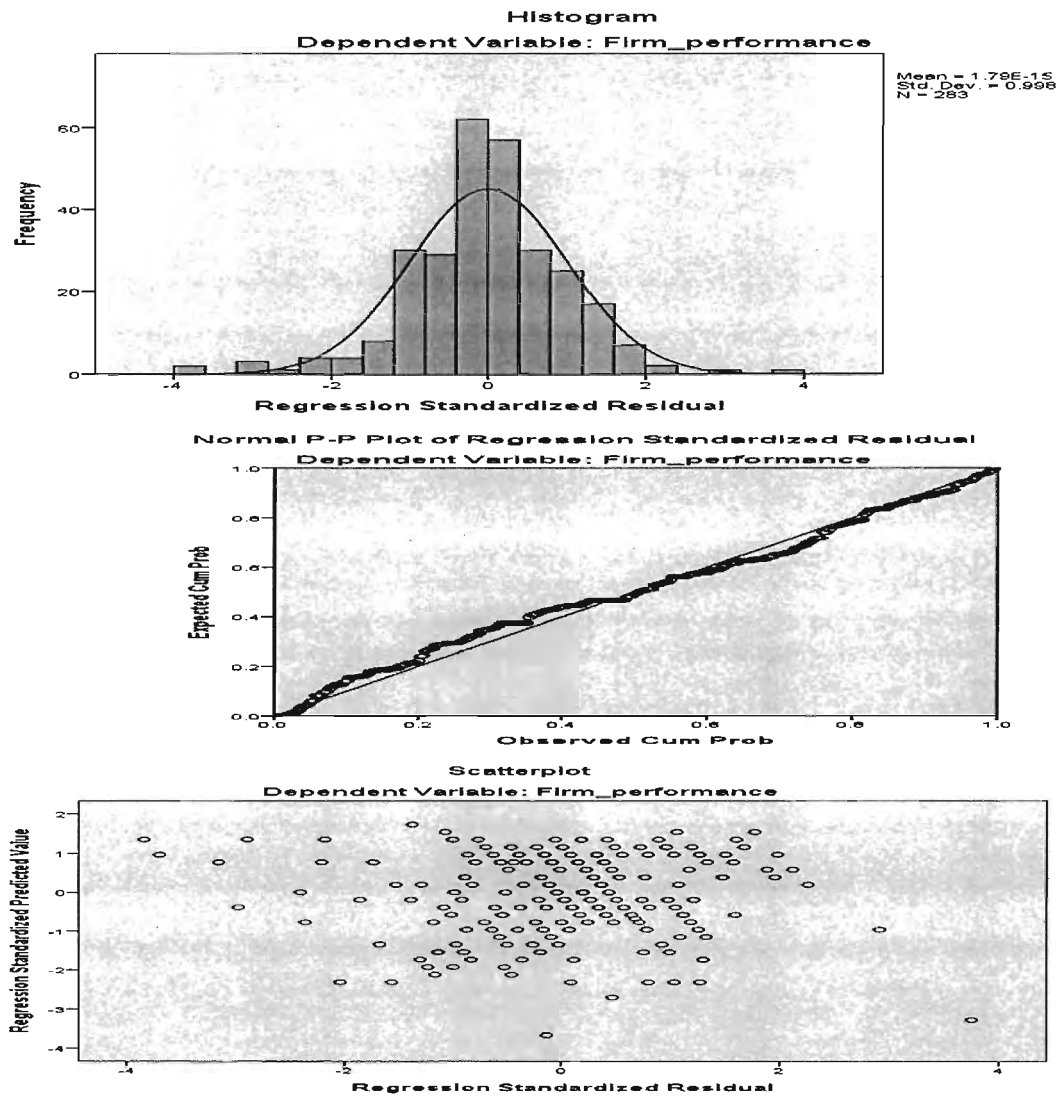




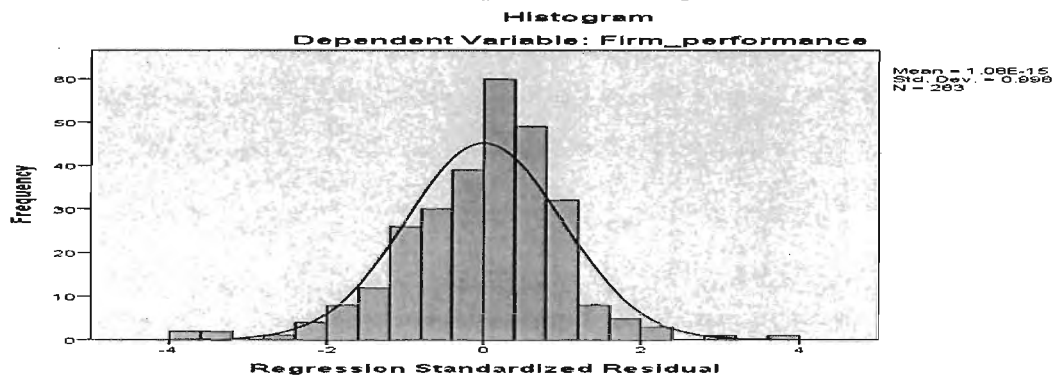
Simple Linear Regression: Entrepreneurial orientation and Firm performance

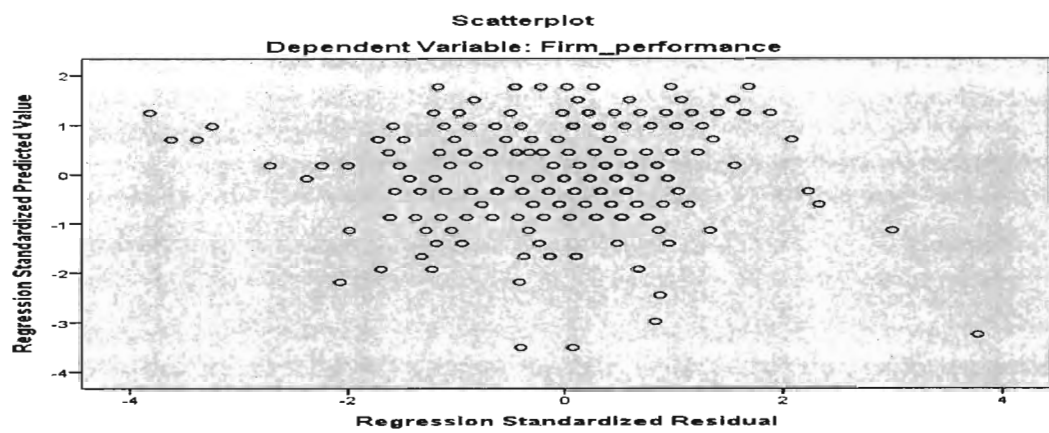
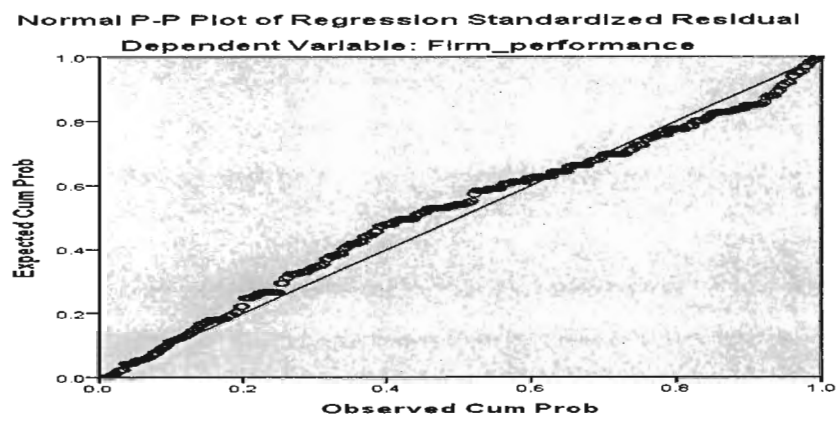


Simple Linear Regression: Social Network and Firm performance



Simple Linear Regression: Human Capital and Firm performance





APPENDIX E: PLS-SEM MEASUREMENT

E1: Cronbachs Alpha

	Cronbachs Alpha
BP	0.774425
CA	0.841316
EO	0.731427
HC	0.822908
SN	0.863004

E2: Composite Reliability

	Composite Reliability
BP	0.846921
CA	0.880262
EO	0.823038
HC	0.875911
SN	0.894202

E3: Average Variance Extraced (AVE)

AVE

	AVE
BP	0.526186
CA	0.512684
EO	0.483866
HC	0.587545
SN	0.547652

E4: Discriminant Validity

Latent Variable Correlations

	BP	CA	EO	HC	SN
BP	1.000000				
CA	0.396446	1.000000			
EO	0.435865	0.710312	1.000000		
HC	0.419923	0.607839	0.544115	1.000000	
SN	0.383282	0.712041	0.627002	0.579067	1.000000

E5: Cross Loadings

	BP	CA	EO	HC	SN
CA02	0.219738	0.676326	0.470296	0.355067	0.581904
CA03	0.297065	0.729903	0.526890	0.498577	0.541033
CA04	0.253230	0.707022	0.475213	0.398693	0.467330
CA05	0.267742	0.779011	0.513186	0.456689	0.527398
CA06	0.353508	0.703768	0.481695	0.508170	0.420967
CA07	0.267633	0.699560	0.502881	0.346704	0.407003
CA12	0.319937	0.712178	0.574396	0.465023	0.593636
EO1	0.231854	0.525829	0.655874	0.286507	0.397240
EO3	0.278306	0.417306	0.606621	0.386686	0.341718
EO4	0.339586	0.379320	0.681227	0.437151	0.337096
EO5	0.376160	0.527857	0.780099	0.336134	0.519116

EO6	0.290845	0.590228	0.740639	0.457183	0.545334
HN01	0.409567	0.508341	0.476750	0.826968	0.480941
HN02	0.325986	0.498972	0.455081	0.835689	0.460058
HN03	0.293509	0.501206	0.457756	0.787555	0.538985
HN04	0.304470	0.510734	0.405051	0.723814	0.488424
HN05	0.241918	0.275973	0.253539	0.641344	0.212204
PER01	0.699872	0.324203	0.347587	0.256645	0.316260
PER02	0.736048	0.263379	0.344717	0.254593	0.174134
PER03	0.654734	0.297042	0.245638	0.223383	0.345945
PER04	0.782891	0.283393	0.337558	0.319068	0.261861
PER05	0.746824	0.275287	0.301206	0.435922	0.296736
SN01	0.261230	0.583316	0.491238	0.313936	0.735348
SN02	0.166906	0.438629	0.344318	0.400012	0.667099
SN03	0.193913	0.436267	0.387907	0.392037	0.729997
SN05	0.338179	0.496945	0.483394	0.395197	0.785241
SN06	0.331376	0.522833	0.473568	0.505427	0.744817
SN07	0.352542	0.652746	0.561009	0.512658	0.721034
SNO4	0.281727	0.485810	0.439760	0.455120	0.789723

APPENDIX F: PLS-SEM STRUCTURAL MODELS

F1: Path Coefficients Direct Relationships

Total Effects (Mean, STDEV, T-Values)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics (O/STERR)
EO -> BP	0.263800	0.268821	0.070477	0.070477	3.743053
HN -> BP	0.218605	0.223211	0.053646	0.053646	4.074982
SN -> BP	0.099451	0.101704	0.059721	0.059721	1.665253

F2: Mediation Results (Bootstrapping)

Mean, STDEV, T-Values, P-Values

	Original Sample (O)	Sample Mean (M)	Standard Error (STERR)	T Statistics (O/STERR)	P Values
Competitive Adavantage -> Performance of SMEs					
Entrepreneurial Orientation -> Competitive Adavantage					
Entrepreneurial Orientation -> Performance of SMEs	0.164	0.170	0.033	4.903	0.000
Social Network -> Competitive Adavantage					
Social Network -> Performance of SMEs	0.181	0.187	0.035	5.168	0.000

F3: Moderation Results (Bootstrapping)

F4: Coefficient of Determination (R2)

	R Square
BP	0.242238
CA	0.621727
EO	
HC	
SN	