THE USE OF SOCIAL MEDIA IN SUPPLY CHAIN BY SME'S

BY
Esere Ovie

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The candidate confirms that the work submitted is his/her own and that appropriate credit has been given where reference has been made to the work of others.

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Abstract

Small and medium-sized enterprises (SMEs) play a crucial role in the UK and Nigerian economy and contribute significantly to revenue, employment, and competition. However, increased competition has created a tougher environment for SMEs, with an increased environmental uncertainty, cyber-security issues and a rise in the number of suppliers (local and global). For improved competitive advantage, SMEs are increasingly looking to collaborative relationships with and between their supply chains to provide a source of competitive advantage. The idea of having collaborative relationships between buyers and suppliers and within suppliers represents a profound departure from conventional practice. Managing relationships in supply chains can be supported by technology tools that facilitate better interaction and sharing of information with other members -social media is one of such tools. Its fast speed can help promote social interactions and support information sharing. Nevertheless, the use of social media from a marketing context has been well studied while little is known about social media use in supply chains. Given this view, this study aims to explore the use of social media in supply chains by SMEs it addresses how does social media use by SMEs affect relationships with and between supply chain members.

The TAM 2, together with the relational view of the firm, formed the basis for the theoretical framework of the study. This study utilized the case study strategy. An exploratory qualitative study was conducted using six multiple cases based locally in the UK and Nigeria to arrive at the findings. This study focused on relationship triads -three, case comprised of one company and two suppliers with at least one SME in each supply chain triad. The focus was on firms with a minimum of one SME in each supply chain triad. Specifically, a total of 18 semi-structured interviews (9 in each country) were used in the analysis of participating firms from the manufacturing (food), high technology (IT) and low technology (fashion) sector for comparative purposes. The data were subsequently analyzed through thematic coding using template analysis. The research makes the following findings. First, Facebook emerged to be the most widely used form of social media in SMEs triads. Followed by Twitter, LinkedIn was viewed as the least social and interactive tool by SMEs. Secondly, the use of social media in supply chains by SMEs was found to be a relatively new concept. This is a result of the findings which showed that the collective use of social media in supply chains were only fully utilised in the SME triad of the creative sector. The collective use of social media in the supply chain of low tech triads were not found, and interestingly, the high-tech sector did not use public social media in their SME triad as well. Third, there were no significant differences between SME buyers and suppliers use of social media. However, it was

found that there were degrees of influence (either directly or indirectly) and power exerted by the key or influential buyer or supplier on the other member of the supply chain to use social media. Fourth, SMEs differed from larger businesses in terms of resources (e.g. lack of dedicated staff and the cost restraints) and formalised/informalized structures. Fifth, trust and transactional exchange were the foundational elements for social media use in supply chain by SMEs; the drivers include: perceived ease of use, perceived usefulness social influences and the external environment while, the facilitators/constraints to social media use includes: innovativeness, power and control, internet infrastructure, resources, security concerns nature of relationships and industry. Sixth, the use of social media in this study influenced the buyer-supplier and supplier-supplier relationships positively by improving interactions and facilitating better collaborative relationships through information sharing, provided the foundational elements trust and transactional exchanges are present. We conclude that the use of social media cannot be overstated, however, in terms of SMEs it was found that the nature of relationships with, and between supply chain members influenced the use of social media. Practical recommendations were made discussed based on the findings of this study. Finally, the limitations of the current study were presented, and directions for future research were proposed.

Keywords: Supply chain management, social media, collaboration, information sharing, relationship management, SMEs, business-to-business relationships, triads, buyer-supplier relationships, supplier-supplier relationship.

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List of Abbreviations

B2B	Business-to-Business
B2C	Business-to-Consumer
SCM	Supply Chain Management
RM	Relationship Management
SM	Social Media
SME	Small and Medium Size Enterprises
PEOU	Perceived Ease of Use
PU	Perceived Usefulness
TCE	Transactional Cost Economies
IS	Information Systems
IT	Information Technology
ERP	Enterprise Resource Planning
GDP	Gross Domestic Product
GVA	Gross Value Added
GSCOP	Grocery Supply Code of Practice
OM	Operations Management

Chapter 1 INTRODUCTION

1.1 Introduction

This chapter provides a brief overview of the topic of study. Following this introductory section, the chapter is organized as follows: sections1.2 and 1.3 discuss the research background and the gaps in the literature that spur this study as well as the research question. Sections 1.4 and 1.5 presents the research question and aim of the study. Sections 1.6, examines the expected contributions at the theoretical, practical and policy level. Section 1.7 and 1.8 discuss the motivations and limitations of the study. Sections 1.9 and 1.10 presents the research method and thesis format. The chapter concludes with a summary.

1.2 Research background

The increase in internet use and e-commerce activities has led to the current popularity of social media (Al-qirim, 2008; KPMG, 2011a). According to HBR (2010), there has been an increase in the use of social media (SM) by businesses. However, SME's use of SM has been less than its use by large organizations (HBR 2010: FT, 2012a: Gartner, 2011a &b, 2012). Probably, because of this, there is sparse research on SM in SME's. Although SM use by large organizations has been on the increase, research on the subject has been mainly in the context of marketing (see Mangold and Faulds, 2009; Kaplan and Haenlien 2010; Teece, 2010; Weinberg and Pehlivan, 2011; Evans, 2012; Anderson 2010). A glaring gap exists in the study of SM (and other new frontier technologies) in the context of supply chains (see section 1.3).

SMEs have been continuously identified as being vital for the economic sustenance of countries in which they operate (Ayyagariet al, 2003: Abor and Quartey, 2010). In many countries, they provide for a large percentage of employment figures (BIS 2012), sometimes outstripping employment provided directly by governments and large organizations (Abor and Quartey, 2010). They have also been identified as capable of being innovative and are seen as having the potential for growth, competitiveness, and development (European Commission. 2011: Khalifa and Davison (2006). Examples of businesses that were once considered as small but are now FTSE 100 companies are Microsoft and Facebook. Considering the importance of SMEs, research in SCM has

focused mainly on large organizations and little remains known of SMEs in SCM (see sections 1.3).

Despite the globalization of supply chains, there are significant technological differences between countries and regions. Some nations have better-developed internet infrastructure than others. For example, Africa is a region grappling with IT infrastructural challenges (ITU 2012 & 2013). Challenges include insufficient fixed telephone lines, scarcity of broadband connections and the high cost of broadband connectivity (ITU, 2012). With limited fixed broadband connectivity, users in Africa have leapfrogged over fixed internet connectivity to mobile internet connectivity via their mobile devices such as smartphones. Consequently, there has been an increase in popularity of social media via mobile phone internet use. Social media like Facebook, Twitter and YouTube, are amongst the most visited social media sites across African countries. Such challenges translate to Africa having the highest growth rate for mobile internet use (African Renewal, 2010). Nigeria specifically is an excellent example of such countries.

A 2010 United Nations article on social media in Africa had estimated that one in ten people would become internet users in 2010 (Africa renewal, 2010 p3). This shows a growth trend from an estimated 1 in 5,000 in the year 1998 (Lown et al., 1998). There has been a further growth. According to Internet World Stats (2017), of the 1,246,504,865-people living in Africa in 2017, 335,453,374 have access to the internet. This is a penetration rate of 26.9% accounting for 9.1% of the world's total Internet usage. Such growth has aroused the interest of IT businesses such as Blackberry and Facebook. Indeed, Facebook now offers a Nigerian local language version –Hausa. The use of social media in Nigeria has generally been on the increase solely with the use of mobile internet. On the other hand, the use of SM in the UK has been on the increase via fixed (broadband) and mobile internet connections (ITU, 2012). Such disparity in the use of the IT and its infrastructure lends itself to a comparative study. By doing this, it also provides an opportunity to benchmark the use of SM in Supply chains by SMEs within the two countries. Additionally, a comparative study allows for exploring themes and patterns across multiple cases. This should help provide rich contextual information on the areas of interest. Another motivation for the country choices is because the researcher is from Nigeria, and studying in the UK. This study aims to fill gaps that have been highlighted in this chapter -gaps in knowledge about the use of social media in supply chains by SME's.

1.3 Gaps in literature

There is limited research addressing the use of social media and supply chain management. Evidence of this is shown in the table below show that there is a plethora of research conducted on social media from a marketing context. However, little research has been done on social media use from an SCM context as the start of this study. In August 2013, the researcher carried out an electronic search using the web of science database (which is provided by University of Leeds). The search was limited to scholarly journals, full text, and search in the abstract. The key words (or phrases) inputted were: “Social Media” OR “Web 2.0” AND “Business Relationships” OR “Relationship Management” AND “Supply Chain Management” OR “Supply Chain.” The search was updated in March 2016 as (social media tends to be fast paced) with the result shown in Table 1.1.

Table 1.1 Number of hits on “Web of Science” using keywords search

Key Words (using search to find in “Topic.”	Number of Hits
“Social Media” and “Marketing”	479
“Social Media” AND “Supply Chain”	13
“Social Media” AND “Relationships” AND “Marketing”	35
“Social Media” AND “Relationships” AND “Supply Chain”	3

Source: Author

The same search was updated in January 2018 with the result shown in Table 1.2 below.

Table 1.2 Number of hits on “Web of Science” using keywords search in 2018

Key Words (using search to find in “Topic.”	Number of Hits
“Social Media” and “Marketing”	869
“Social Media” AND “Supply Chain”	30
“Social Media” AND “Relationships” AND “Marketing”	104
“Social Media” AND “Relationships” AND “Supply Chain”	3

Source: Author

Furthermore, it is worth noting that prior studies on technology use in supply chains have primarily focused on the use of traditional ERP (Enterprise Resource Planning) application systems (Forslund, 2010: Forslund and Jonsson 2010: Li, 2012: Clegg and Wan, 2013), leaving a gap in the understanding of new technologies like social media in supply chains.

A literature search for empirical studies in the existing literature was carried out to explore extant research on the use of social media in supply chains. In August 2013, the researcher carried out an electronic search using six top academic business and management journal databases (which is provided by University of Leeds) were employed Web of science, ProQuest ABI/Inform, Business Source Premier, Science Direct, Google scholar and Springer (see Table 1.3). The search was loosened to full text and topic. The keywords (phrases) inputted were: “Social Media” AND “Relationships” AND “Supply Chain” (see Table 1.4). The search was updated in March 2016 with the result shown in Table 1.3.

Table 1.3 Number of hits and Search Strategy

Name of database	The Initial list of papers	Preliminary screening of titles	Abstract Screening	Full document Screening	Retained for data extraction
Web of Science	30	6	3	3	3
ProQuest ABI	4	2	1	1	1
Business Source Premier	2	2	1	1	1
Science Direct	1	0	0	0	0
Google Scholar	495	12	10	10	10
Springer	17	6	3	3	3
Total	549	28	17	17	17

Source: Author

The search was limited to scholarly journals, full text, and search in the abstract. There were few articles at the time that used the term social media, so the search was loosened to accommodate similar words/meanings such as “Web 2.0”. The key words

(or phrases) inputted were: “Social Media” OR “Web 2.0” AND “Business Relationships” OR “Relationship Management” AND “Supply Chain Management” OR “Supply Chain.” The search was updated in March 2016 with the result shown in Table 1.4. A drill down using the syntax mentioned showed four articles, three of which explored ideas related to the concepts that this research seeks to study (see table 1.4 for details). Upon further probing of these four (4) articles, only one (1) article thoroughly explored the concepts (see table 1.5) anywhere related to the concept that the research seeks to study and overlapped with ABI search.

Table 1.4 Number of hits on ABI using keywords search

Key Words (limited to “Full Text,” “Scholarly Journals” and find in “Abstract.”	**Number of hits**
“Social Media” OR “Web 2.0” AND “Marketing”	194
“Social Media” OR “Web 2.0” AND “Supply Chain Management” OR “Supply Chain”	39
“Social Media” OR “Web 2.0” AND “Business Relationships” OR “Relationship Management” AND “Marketing”	15
“Social Media” OR “Web 2.0” AND “Business Relationships” OR “Relationship Management” AND “Supply Chain Management” OR “Supply Chain”	4

Source: Author

Table 1.5 The limited papers discussing social media from a supply chain context

Authors and year	Title	Journals	Focus of study
Markova and Petkovska-Mircevska, (2013).	Social Media and Supply Chain.	Amfiteatru Economic	The authors seek to explore social media in supply chains from a transactional/ commercial viewpoint. They also highlight social profiles, social applications, brand outposts and communities, and the social ecosystem.
Li, A. (2011).	Social media & supply chain management: Don't copy, be inspired.	Supply & Demand Chain Executive	This is a one-page report on how "corporate social media" tool might work in supply chains. The author highlights that SM has the potential to solve latency challenges in supply chains by using SM "tag" function to can keep information on a "need to know" basis.
Kosk, N. (2012).	Social media drives B2B collaborative efforts in the supply chain.	SDCExec. Com (Trade Journal)	The author advocates that SM can drive B2B collaborative efforts in the Supply Chain.
Mcentire, C. (2012).	Effective social media in supply chain: The search is on.	SDCExec. Com	This report advocates that for social adoption in the B2B supply chain to expand, capability factors must be considered.
Gonzalez, A. (2013).	The social side of supply chain management.	Supply Chain Management Review	The author advocates that SM has the potential to facilitate people-to-people communication and collaboration. However, many supply chain executives are more receptive in terms of exploring social networks opportunities to manage their supply chain processes than in communication and collaboration.

Source: Author

A second deficiency of the extant literature is that many SCM studies have focused on the buyer aspect of relationships, paying less attention to the supplier aspect of the relationship. Such continued focus is probably due to the power exerted by the buyer in the buyer-seller view of relationships underpinning Transaction Cost Economics (opportunities for cost reduction) (Williamson, 1985). However, a number of critics argue that supply chain relationships need to move beyond the transactional cost approach to a more collaborative (relational) approach (Wu and Choi, 2005 & 2009; Dubois and Fredriksson, 2008; Rossetti and Choi, 2005 & 2008).

Research to date on Supply Chain Relationships tend to focus on buyer-supplier relationships leaving out relationships amongst suppliers (see Sanfiel-Fumero et al., 2012: Rossetti, 2006: Kim, 2012: Ambrose, et al., 2010). Buyer-supplier and supplier-supplier relationships can help to achieve economies scale, reduce transaction costs and provide support for technology (Bai et al., 2009). In particular, buyer-supplier

relationships are equally as crucial as supplier-supplier relationships; they can help to integrate the suppliers and the supply chain, primarily as the suppliers, often seem removed from the market (Cetrángolo et al., 2002: Bai et al., 2009: Huang et al., 2014). The study focuses on supply chain relationships between buyers and suppliers as well as across suppliers.

Additionally, the third deficiency of the extant literature is that much of prior research on the broader SCM literature has focused on larger firms. A number of studies focus on the manufacturing industry with automotive firms such as Toyota and Nissan (Jarillo and Stevenson 1991). Lamming et al. (2000) pointed out that one limitation is that research is usually focused on the manufacturing industry and few mass services enterprises. However, this limits the understanding and insight of the theoretical concept, especially in SMEs, not- for- profit and public sectors. Accordingly, the motivation of this study is to address the aforementioned critical gaps in the B2B relationships and social media in SCM literature, this means addressing the dearth of suppliers, SMEs and lastly social media gap in SCM literature.

1.4 Research question

Having identified the significant research gaps in SCM literature above, this study aims to build on the SCM scholarship in general and the information management studies in particular, by providing the fundamental research question: "*How does the use of social media by SMEs affect relationships with and between supply chain members?"*

1.4.1 The justification for SMEs

SMEs were chosen for these reasons: 1). Extant research showed that majority of Supply Chain Management (SCM) literature focused on large firms leaving little room for SMEs. 2). SMEs are significant contributors to the Nigerian and UK economy, competitiveness, innovation and employment. SMEs play a crucial part in the nations' economic growth (Kauffmann, 2005). Specifically, SMEs account for 87.9% of private employment and can be considered as sustainable mediums to reduce the country's long reliance on oil (Kadiri, 2012; Onakoya & Somoye, 2013; Eniola and Ektebang, 2014). Given that SMEs are critical for economic growth, drivers of innovation, an opportunity for flexibility and sources of competition (see section 2.5), it is essential to fully explore the research topic on SMEs and better understand the impact on their supply chains. The UK and Nigerian government have provided support programmes

and policies to improve the SME sector. However, these policies and programmes are often questionable and may not offer practical solutions to SMEs who are prone to high failure rates and/or operate in competitive environments.

According to Tadesse (2009), SMEs in developing economies often contribute less than 20% to Gross Domestic Product (GDP) even though they have the potential to achieve up to 60% in high-income countries. There are many challenges that constraint SME growth in Nigeria, hindrances such as poor infrastructure, high energy cost, uncertain financial and political times (FT, 2017). One major challenge Nigerian SMEs face is the poor intranet infrastructure needed to grow and compete. The lack of adequate infrastructure places SMEs in a vulnerable position to ward-off international and online competitors both short and long-term. For SMEs to come out strong, they would need to adapt to the ever-changing business environment and successfully compete by building and maintaining collaborative B2B relationships with members of their supply chain.

Various countries have varying definitions of SMEs. There are three many criteria used in defining SMEs. For example, in the United States, SMEs are defined as firms with fewer than 500 employees (The US Small Business Administration, 2016). In the European Union, SMEs refer to companies with fewer than 250 employees. In Nigeria, SMEs refers to firms with less than 300 employees (CBN, 2010). In the UK, a statistical release from the BIS department in Oct 2016: p14 titled “Business population estimates for the UK and regions 2016” define SMEs as businesses with 0-249 employees. Specifically, firms with fewer than 49 workers are known as small businesses, companies with 50-249 employees are classified as medium-sized business and firms with 250 or more employees are considered large business in the UK (BIS,2016). It is worth mentioning that there are other criteria used in defining SMEs aside from employee numbers. They include turnover and total assets of the firm. The Department for Business, Innovation and Skills (BIS, 2016) estimates SMEs represent 99.9% of all employer firms, employing about 60% of the total private payroll in the UK. In total, SMEs account for about 47% of the UK GDP, almost 10% of manufacturing employment and 5% of ICT employment. Given these benefits and opportunities for social, economic and competitive development in a nation, SMEs still face high failure rates (BIS, 2016). SMEs, therefore, play an essential role in a nation’s economic growth as they act as a source of competition, employment, drivers of innovation, an opportunity for flexibility. To this end, exploring the use of social media from an SME context is reasonably justified. The study adopts the BIS definition of SME, narrowing down the number of employees 10-249 and excludes micro firms. The decision to exclude micro firms was

mainly due to a dearth of information and limited research that exists on micro firms in academic databases. Although, there are limited studies on SMEs, there are even fewer studies on micro firms in SCM literature. Hence, micro firms may not provide a better understanding and insight into the phenomenon under study.

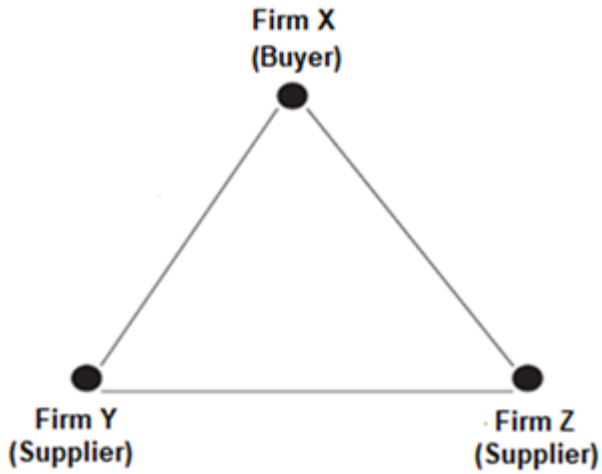
1.4.2 The justification for triads

This study takes a triadic perspective for these reasons: 1). Scholars have argued that triads, not dyads are the least foundational building block of networks and should be used as a unit of analysis. 2). Dyads have received much attention in SCM literature to the neglect of triads. 3). To provide a better understanding of the influences (direct and indirect) and different perspectives on triadic relationships, thereby providing a holistic and balanced view.

Extant SCM and Operations Management (hereafter OM) literature has focused mainly on dyadic relationships (e.g., buyer-supplier) paying little attention to relationships between suppliers (supplier-supplier dyad) also known as horizontal supply chain relationships (Anderson, et al.,1994: Anderson, et al.,2000: Wilhelm, 2011, van der Valk & van Iwaarden, 2011, Huang et al., 2016;). Studies by Wu and Choi, 2005, Choi and Wu, 2009 and Wu et al., 2010 reveal a growing trend of suppliers competing and collaborating (coopetition).

According to Choi and Wu (2009a), triads are the fundamental building blocks and the smallest unit of supply chain networks rather than dyads. They further argue that although most supply chain relationships start off as a dyad and remain the most common unit of measurement networks in SCM research, “dyads do not capture the essence of a network” (p 8). Simmel (1950) provides a summary by arguing that indeed triads are the simplest forms of relationship with dyadic linkages. Similarly, Nooteboom, (2006) adds that a triad consists of three embedded dyadic relationships between three businesses. As such, the triads in this study consist of three dyads (one buyer-supplier and two supplier-supplier relationships) and each triad consist of a firm and two suppliers or a buyer and two suppliers as shown in the figure below.

Figure 1.1 A triadic relationship between three parties in a supply chain relationship.



Source: Choi and Wu (2009a p264)

Figure 1.1 shows a triad formed by three organizations X, Y, Z with direct relationships with each other. Firm X may influence the relationship between Y and Z and vice versa, in another word each firm X, Y, Z can affect the indirect relationship in a triad (Choi and Wu, 2009a &b: Wu et al., 2010). Each triad comprised of three embedded dyadic relationships between firms X, Y, Z - two buyer-supplier relationships and one supplier-supplier relationship. Triadic structures by its three-dimensional nature differ from the dyadic structure that is linear, vertical and two-dimensional.

1.4.3 The justification for the three business sectors

The rationale for selecting three sectors: low-tech (food manufacturing), high-tech (IT), and creative (fashion) industries are to provide a comparative and diverse basis to explore the nature of the industry on social media use or non-use.

1.4.3.1 The high-tech (IT) Industry

The high (digital) technology industry comprises of a variety of businesses involved in cloud computing; data centres; cybersecurity; IT infrastructure; software development; mobile devices; research networks, digital and IT support. The fast pace and dynamic growth of the high (digital) technology industry have been a significant contributor to the UK economy. Collectively, the UK's digital (high) tech sector is estimated at £170bn (Tech Nation Report, 2017) in 2015 which saw a 28% growth. However, the ongoing Brexit negotiation may provide opportunities for UK competitors and uncertain times for

UK business in this sector. Other challenges facing businesses that operate in this sector include a skills shortage and intense competition. On the other hand, many argue that the industry by its nature is ever changing and so businesses must be agile to remain competitive. Unfortunately, there is no known statistic available for Nigeria. Given, the fast pace of the industry, the high-tech industry and specifically IT, was chosen to provide this study with a comparative basis and diversity regarding social media use.

1.4.3.2 The low-tech (food and drinks manufacturing) industry

The food and drinks manufacturing industry in the UK remains one of the most significant manufacturing sectors, holding up to the likes of the automotive and aerospace industry combined (Lloyds Research Report, 2016). The food and drinks firms contribute to the social and economic development, accounting for a turnover of £95.4bn and employs over 400,000 staff (GOV.UK, 2015, AON, 2016). Furthermore, the sector comprised of a variety of businesses performing roles such as buying and supplier and businesses such as catering, farming, manufacturing and retailing. Despite this, there are challenges afflicting the food and drinks manufacturing sector such as the ongoing Brexit negotiation, intense competition (by overseas, local and online competitors) reflected in the battle to drive down prices, poor supply chain relationships (particularly retailer-supplier) and a skills shortage. Although, there is no known statistic available for the Nigerian food and drinks industry, this remains important to the Nigerian economy. However, all these firms are part of some supply chain and finding ways to improve their relationships and ultimately improve their competitiveness is critical.

1.4.3.3 The creative (fashion) industry

The creative industry in the UK consists of several businesses in advertising, architecture, arts and culture, crafts, design, games, music, publishing, TV & Films and fashion. This study focuses on the fashion industry. The fashion industry comprises of a variety of products (such as footwear; lingerie; bag & luggage, jewellery & watches; accessories, cosmetics; perfumes & hair products; women, men & children's wear) and businesses such as fashion retailing; accounting; charities; advertising and public relations. Collectively, in 2014, these firms contributed to the social and economic development, accounting for a turnover of £26bn in the UK and employed over 797,000 staff (Oxford economies, 2015). There is limited data available for Nigeria. Nevertheless, according to BOF and Mckinsey (2017), Nigeria remains key to the fashion industry with an estimated 2% growth in the number of middle to upper-class households between

2017 and 2025. This roughly translates to a potential market size of 16 million people by 2025, ensuring that the fashion industry continues to grow and is a relevant comparative basis in this study.

The ongoing Brexit negotiation has brought about many uncertainties to the UK economy, and the fashion industry is not left out (FT, 2017a; Business Telegraph, 2017). Other challenges that plague the UK fashion industry include 1. Difficulties in accurately forecasting sales (as customers are becoming less predictable) 2. Changing customer preferences (e.g., customers are becoming more shrewd; environmental and ethically conscious; sophisticated and technologically savvy challenging not only firms but their supply chains as well) 3. The Increased demand to produce more in less time, with less money and less effort. 4. Increased competition from online, local and global competitors. 5. Speed to market and fashion cycle (BOF and Mckinsey 2017). Despite these challenges, the fashion industry looks promising, as a result, many fashion firms are becoming agile in a bid to respond to abrupt drops and the bullwhip effect short-term (Chen et al. 2000; Isaksson and Seifert, 2016). Many firms also look inwards to their business relationships and technology use in a bid to tackle these challenges and build a competitive edge long term.

Firstly, the fashion industry was chosen in this study as it remains a visual and fast-paced sector by nature which can require fashion firms to accept and adopt social and interactive tools such as social media. Secondly, the prior acceptance and uptake of e-commerce and other technological tools in the fashion industry provide a useful opportunity to explore social media use or non-use. E-commerce and e-shopping have increased the intensity of competition in the fashion industry particularly over the last decade and have witnessed greater ease of online purchases and technology-led interactions. Thirdly, this study aims to provide a balance and a spectrum of social media use- from high social media use to non-social media use. For example, social media can introduce innovative ways of interacting and reacting with customers (and or supply chains) in the fashion sector, while social media use can be a new concept in other industries.

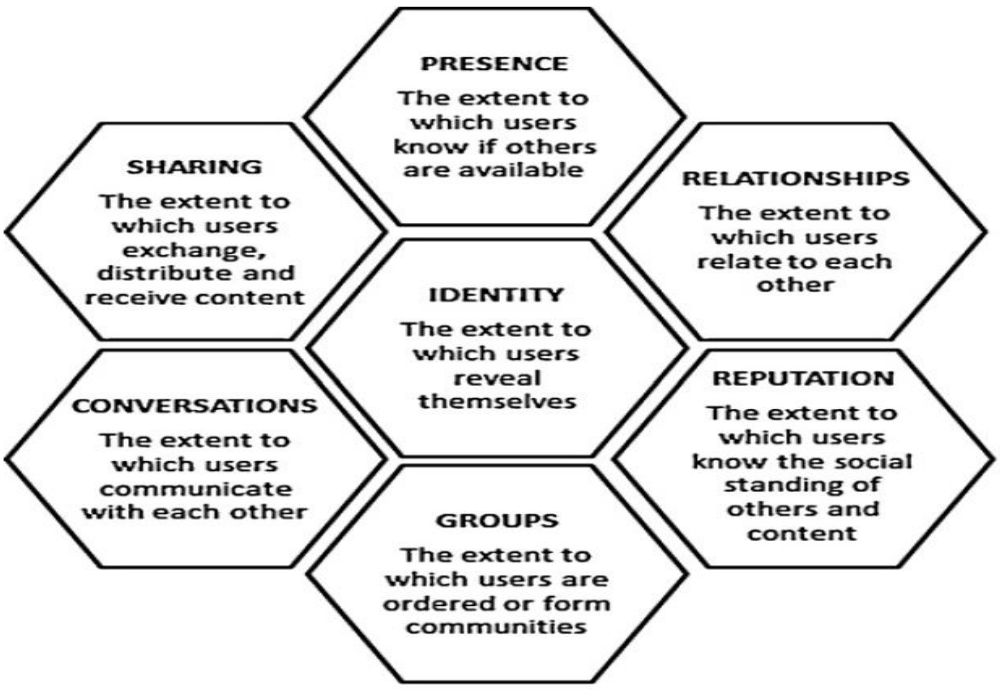
1.5 Research aim

In seeking to address the above-mentioned research question, the section begins by defining social media. One of the influential and widely cited journal articles on social media is Kaplan & Haenlein, (2010). Kaplan & Haenlein, 2010 p:61 define social media

as "*a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0 and that allow the creation and exchange of user-generated content*". This study introduces the notion that social media has the capability to be used as a tool to facilitate collaborative relationships and the sharing of valuable information in supply chains that is yet to be investigated.

This study's ground is backed by another influential study on social media use in a business context Kietzmann et al. (2011 &2012). It is worth noting that Kietzmannn et al.'s (2012) article forms the theoretical potential to explore the use social media as a tool for collaborative relationships (Butler and Matook, 2015) in supply chains (see figure 1.2). Fig 1.2 presents the topology of social media use in business by Kietzmann and colleagues. They argue that social media can be used as tools for 1) conversations, 2) sharing 3) groups, 4) presence, 5) identity, 6) reputation and 7) relationships. For the relational aspect of the topology, they suggest that SM can be used as a tool for developing and sustaining relationships.

Figure 1.2 The honeycomb of social media



Source: Kietzmann et al. (2011)

The findings should provide a better understanding of the building blocks for social media use in supply chain by SMEs and the factors underlying the use or non-use of social media. Finally, the study aims to provide valuable insights and suggestions to

researchers, practitioners and policymakers on how SMEs may build their competitive advantage by sharing valuable information and better collaborative B2B relationships via social media use.

1.6 Contribution from the study

This study is focused on the notion that social media use with and between supply chain members builds and maintains collaborative relationships and promotes the exchange of valuable information. Whereas most SCM research has focussed on larger firms, research on how SMEs can better their collaborative relationships to benefit from information sharing via social media is sparse in literature. This is surprising considering the fact that literature clearly stresses that increased competition has led to supply chains to become increasingly reliant on collaborative relationships rather than transactional exchanges to develop their competitive advantage (Huang et al., 2016). This study seeks to contribute in three important ways: 1) theory; 2) practice and 3) policy.

1.6.1 Contribution to theory

The study's contribution is as follows: 1) It contributes to SCM literature particularly, social media and B2B relationships literature on SMEs which was found to be limited. 2) The application of TAM 2 and the relational view in addressing the research questions offers contemporary insights and lays a foundation on which SCM scholars can build on. 3). It integrates two main fields -SCM and Information Management, to understand the research topic better.

Firstly, consistent with Kietzmannn et al.'s (2012) conceptualization of social media capabilities, i.e. tools for relationships, the study explores the notion that social media can be used as a relational tool by SMEs for better information sharing and improved B2B relationships. To the author's knowledge, the study is the first to build on Kietzmannn et al.'s (2012) work on the conceptualization of relationships as one of the multifunctional uses of social media with SMEs and the unit of analysis being triadic relationships. In this regard, the study lays a strong foundation for future research in an effort to investigate social media use in SCM, mainly from a SMEs perspective which Gligor and Autry 2012 found limited. As such, this study makes a contextual contribution by examining the use of social media (in SCM) by SMEs.

Secondly, as little is known about social media from an SCM context, the study draws from Technology Acceptance Model (TAM2) and the relational view of firms' literature to gain a better understanding of the topic and address the research question. TAM2 is positioned as better articulating how users have come to accept and use social media, particularly as the effects of alternative theories such as social capital tend to be overly complicated. The relational view further explores sources of competitive advantage (relation-specific assets, knowledge exchange, resources and capabilities; and governance) by carefully examining triadic (buyer-supplier and supplier- supplier) relationships.

TAM was proposed as a useful tool for better understanding of how SMEs have come to accept and use social media as it had constructs that catered for the perceived usefulness and ease of use of Social Media. However, TAM currently has three versions. They are TAM1, TAM2 and TAM3. TAM1 was eliminated as it did not consider "social factors" themes which literature pointed to as being important to SMEs. Although TAM3 included social factors, TAM3 was deemed inappropriate for these reasons: 1). TAM3 is an overly complicated model, precisely as that the current internet penetration rate in developing country- Nigeria is below 50% (see section 1.7) and as such social media use may or may not be in its advanced stages. 2). TAM3 is focused on the actual use of sophisticated physical technologies. 3). The study sought to explore the perceived use of social media from the users' perspective rather than the actual technology itself which TAM2 is better suited. In other words, this study adopts the theoretical lens of TAM2 and the relational view collectively. By doing so, the study helps us to learn about social media from a supply chain context that is how some SMEs use social media in supply chains while other SMEs may not. The understanding of how does the use of social media by SMEs affect relationships with and between supply chain members which also has relevant implications for their competitiveness.

Another contribution of this study lies in the fresh and contemporary application of TAM 2 and the relational view of firms in addressing the research question and aim. Generally, many SCM studies have focused on traditional forecasting and planning applications like Enterprise Resource Planning (ERP) (Forslund, 2010: Forslund and Jonsson 2010, Li, 2012): Applying TAM2 (and the relational view) to social media offers new insights, and presents a foundation for contemporary information and approaches in supply chains.

Thirdly, the examination of social media use in supply chains has underlying roots mainly in SCM and Information management (IM). this study contributes to knowledge by

merging the two bodies of information on SCM and IM, thereby laying a foundation for future cross-discipline scholarly contributions.

Social media has been relatively more researched in developed countries; not much has been done on the topic in developing countries. Therefore, this study applies the frontiers of SCM and IM literature to a context previously unexamined, a developing country- Nigeria. Yet, social media use could be of great importance in Nigeria not only because of the opportunities for internet penetration and social adoption but also because they are more vulnerable to infrastructural challenges compared to their UK counterparts.

1.6.2 Contribution to practice

On a practical level, this study provides SMEs with insights regarding social media use. Considering the fact that social media use can be a double-edged sword offering both buyer and supplier benefits like sharing of useful information and constraints like vulnerability to opportunistic members, managers are provided with information on how to leverage its benefit. Also, the study intends to provide top and middle managers of SME firms with insights for improving their B2B relationship and competitive advantage.

1.6.3 Contribution to policy

The study furnishes policymakers with insights into the likely beneficial outcomes and constraints of social media use that is useful in the formulation of policies that support and promote the competitiveness of SMEs.

1.7 Author motivations

1.7.1 The justification for Nigeria and the UK

The reasons for selecting Nigeria and the UK are in two folds: 1). It is embedded in the internet infrastructure and 2). the researcher is originally from Nigeria. United Kingdom's internet infrastructure emphasizes both fixed and mobile connectivity. Social media users in this country are able to access the internet from both connectivity's using Desktops, Laptops, mobile phone, tablets and other devices. While, the use of SM in Nigeria has been predominantly on the backbone of Mobile internet technology (ITU, 2013: Akpan-Obong, 2009; we are Social research & analysis, 2015) as there exist poor

fixed landline infrastructure (see table 1.6). Consequently, users in Nigeria characteristically access social media using mobile devices such as smartphones (Africa renewal, 2010).

Table 1.6 Differences in technology infrastructure and country ratios

Attribute	Nigeria	UK
Population in thousands in 2012	**174,510**	**63,390**
Internet users per thousand population in 2009	252	811
Fixed landline users per thousand population in 2011	**4**	**524**
Mobile phone users per thousand population in 2011	545	1287
Active Facebook per thousand population in 2012	37	517
Active Twitter users per thousand population in 2011	25	104
***Real Gross Domestic Product in 2012 per capita**	**$2,545.11**	**$36,488.41**

With regards to the fixed landline users for both countries, at the year 2012 penetration rate for Nigeria and UK were 4 and 524 respectively (We are Social research & analysis, 2012; World Bank, 2012; Nigeria Communications Commission-NCC, 2012), with Nigeria's landline users being considerably lower. Unfortunately, the figure for 2016 shows a further dip in Nigeria and UK rates of 1 and 505 (see Table 1.2). Despite these disparities, there remains a massive opportunity for social media use in Nigeria via mobile phones.

This shows that as widely adopted as social media is, there is still room for more adoption. In developing countries like the Nigeria, where internet penetration is still growing despite poor landline connectivity, there remains a need to understand the use of SM (in supply chains).

Table 1.7 Updates on technology infrastructure and country ratios

Attributes	Nigeria	UK
Population in thousands in 2016	**193,400**	**66,380**
Internet users per thousand population in 2016	490	950
Fixed landline users per thousand population in 2016	**1**	**505**
Mobile phone subscription per thousand population in 2016	836	1103
Active social media user per thousand population in 2016	98	663
Active mobile social media users per thousand population in 2016	88	572
Gross Domestic Product in 2016 per capita	**$2,177.99**	**$39,899.39**

Sources: We are social, 2018: World Bank (2016), United States Census Bureau (2016)

1.8 Research limitation

1.8.1 Limited data on Nigerian SMEs

Statistics, data, and research into the areas of the research interest are limited and scarce for Nigeria. For example, United Nations Statistics division (2013; pp 9) writing on Nigeria comments: "*Data available are either limited in scope, not representative due to poor respondent's attitude or non-response, insufficient funds to carry out a comprehensive survey. Because of non- conduct of annual surveys many data series are not available*."

Furthermore, studies by Ayyagari et al., 2007 also demonstrated the dearth of research from Nigeria in particular, and African SMEs in general. A highlighted limitation is difficulty in accessing valid and relevant information on the topics of interest. In order to achieve the aim of this research, both primary and secondary sources of information will be explored. This is because insights obtained from these sources will be used to provide a better quality of the interview sessions and critical depth for analysis of findings.

1.8.2 Evolving usefulness of social media

Kaplan and Haenlein (2010) point out that social media use can differ based on the type of social networking platforms, the popularity, and purpose resulting in potentially

different outcomes. The very concept of SM predisposes it to be a social interaction tool. Consequently, there is a blur in isolating it as either a personal or business tool. Unfortunately, because of this overlap, it would be difficult to separate personal from corporate use so information obtained may not be exclusive to business use.

1.9 Research methodology and method

The research methodology used a triangulated approach where interviews were conducted and findings cross-validated by a buyer and their two suppliers. Interviews were carried out with management and business owners from 18 supply chain organizations in Nigeria and the UK. Template analysis was used to 1). develop an extensive template based on prior research, theoretical perspectives and/or a large (rich) data set that captures the research question and broadly capturing other areas of interest. 2). allow for the use of an initial template to interrogate how well the existing theoretical concepts apply (or not) to the data set. Six cases were used to show the main findings of the study with respect to the research question.

1.10 Thesis structure

This thesis is organized into six chapters: 1) Introduction 2) Literature Review 3) theoretical framework 4) Research Methodology 5) Qualitative data analysis and findings 6) Discussions and conclusion. Chapter one (1) provides an overview of the research and introduces concepts such as supply chains, relationship management and information sharing in SCM. It gives the background of how much research has been conducted on social media in a supply chain context. It also provides an overview of the unit of analysis used and the types of businesses in focus. In the end, the introductory chapter explains the research question, contributions, limitations and finally the format of the study.

Chapter two (2) draws on existing literature on SCM, RM, social media and SMEs for three main reasons. 1) To provide a view of research topic 2) To provide a plethora of knowledge that allows information to flow in the direction of the study context and afford the examination of the different perspectives 3) To identify and reaffirm the research gap which supports the central research question raised. The literature review, in so doing, provides a rationale for studying the use of social media in supply chains, for studying

the use from SMEs in supply chain triads perspective, and for studying the impact on B2B relationships in supply chains.

Chapter three (3) presents Technology Acceptance Model 2 (hereafter TAM 2) complemented by the relational view of firms. The chapter also details the research methodology by explaining and justifying the exploratory approach, case study strategy, semi-structured interview method, cross-sectional design, sampling and template analysis. The chapter also details the analytical techniques adopted and findings of the qualitative data from the semi-structured interview of 18 participants. Chapter four (4) presents an in-depth discussion of the overall research findings and analysis. chapter five (5) provides the discussion of the findings, and finally, the thesis concludes with chapter six (6) highlighting useful areas for future research and conclusions drawn from the findings of the study. Specifically, a summary of findings with respect to the research questions is presented. In addition, the theoretical, practical and managerial contribution of the study findings is presented. The reference and appendices are followed. A full layout of this thesis is provided in the table below.

Table 1.8 The Thesis Outline

Chapter	Research Focus
Chapter 1	Overview of the study
Chapter 2	Review of SCM, RM, SM and SMEs literature
Chapter 3	Research model, Philosophical foundations and research methodology
Chapter 4	Data analysis
Chapter 5	Discussion of findings
Chapter 6	Conclusions, implications and limitation of the study

1.11 Chapter summary

This introductory chapter has presented the gaps in the SCM literature motivating this study. The chapter begins with a background in the research context. It highlights the gap in the literature and how the current study attempts to address them. It also discussed the contributions, motivation and limits of the research. In the chapter that follows next, a review of literature is presented.

Chapter 2 LITERATURE REVIEW

2.1 Introduction

This chapter provides an overview of the underlying and relevant literature on the use of social media in supply chains by SMEs. Following this overview, section 2.2 begins with a background in social media. Section 2.3 and 2.4 presents a review of supply chain management (SCM) and relationship management (RM) literature. This is followed by a review of SMEs. By doing so, the themes in social media from a supply chain context in general and particularly the SME literature are uncovered.

2.1.1 The justification for the structure

In this section, specific attention is given underlying research areas (social media, SCM, RM, and SMEs) to reflect the priority an in-depth review of literature rather than the flow of gaps or literature. This chapter provides an overview of the four main and relevant literature – 1). SM, 2). SCM 3). RM, and 4). SMEs. These four areas pave the course for this study. The purpose of this chapter is to deepen the understanding of the theoretical knowledge of the topics in focus. It is worth mentioning that a comprehensive review of the literature regarding the areas of interest can be an ambitious and time-consuming undertaking for three reasons. 1). The literature can be voluminous, and there is a high risk of omitting significant themes and references. 2). A detailed examination of research topics requires an interdisciplinary approach which can provide a better understanding of the different themes and conceptual approaches. 3). The fields of interest like social media, for example, is fast pace and attracts a high level of scholarly interest and so, research in the area requires continuous updating and revision. Nevertheless, the study addresses the first two of these challenges by limiting the individual topics to discussions surrounding: an introduction the definitions; benefits and challenges.

2.2 Background of social media

A review of literature into social media reveals that there is yet to be a universal census on the terms used to describe social media. For example, these terms “Social Software” (Richter & Koch, 2007); “User-generated Media” (McConnel and Huba 2007); “Web 2.0” (Constantinides, 2008); “Social communication platforms” (Jansen et al. 2009); “Social networking” (Cox et al. 2008); “Social networking sites” (De Valck et al, 2009); “Social

networks" (Miguens et al. 2008); "Social websites" (Kim et al. 2010); "Social technology McKinsey, 2012) have been used interchangeably to describe social media. Although there are many varied and numerous terms used to describe social media, these same terms may also signify that social media had been viewed from other perspectives.

The word "social" in social media suggests that people are social beings that interact and have some level of influence over one another. The word "media" refers to a means/tool to engage with an audience via storytelling or sharing of information (Markova and Petkovska-Mircevska, 2013). Examples of traditional media include television and newspapers. The use of social media can provide a new set of tools for different kinds of firms that can pose a challenge to traditional processes and operations in businesses (Tang et al. 2012; Ngai et al., 2015). Particularly as a critical attribute of web 2.0 is the ability to not only interact but rather to push and pull information as well (Markova and Petkovska-Mircevska, 2013). For example, the use of social media over traditional media is the ability to mass customization products to suit the public based on information push and pull which replaces the standardized marketing promotion models (Peters, 1998; Hanna et al. 2011; Ngai et al., 2015). As such, customers are now able for the first time to offer open and public review online which businesses and marketers tend to formulate their strategy around (Ngai et al., 2015). The use of social media has been credited for providing substantial changes in the way businesses, communities and people communicate and interact (Kaplan and Haenlein, 2010; Ngai et al., 2015). As new uses of social media are being discovered, social media remains an emerging phenomenon with its definition and classification still evolving.

2.3 Defining social media (SM)

Social media has been defined by extant studied in a variety of ways see table 2.1. Table 2.1 shows a summary of the definitions of social media. collectively these definitions could indicate the different perspective in which social media is being viewed. For example, Mangold and Faulds (2009, p. 359) define social media as "*a hybrid in that it springs from mixed technology and media origins that enable instantaneous, real-time communications, and utilizes multi-media formats and numerous delivery platforms with global reach capabilities*". Individually, Mangold and Faulds' definition reflects social media as a type of technology, type of media and a usefulness tool. Another definition from Table 2.1 by Hoffman et al. (2013, p.29) describes social media as "*the set of web-based and mobile tools and applications that allow people to create (consume) content that can be consumed (created) by others and which enables and facilitates*

connections". Hoffman and colleagues' definition reflects social media as a type of software application and tool. Another definition from Table 2.1 by Kaplan & Haenlein (2010, p. 61) is defined as "*a group of Internet-based applications that build on the ideological and technological foundations of web 2.0 and allow the creation and exchange of user-generated content*". Kaplan & Haenlein definition, on the other hand, reflects the platform, technology and content. Their definition draws attention to the technical innovation (web 2.0) underpinning the application that allows users to create, share and exchange information. Kavanaugh et al. (2012, p482) describe social media as "*a group of Internet-based applications designed to facilitate social interactions and for using, developing and diffusing information through society*." Kavanaugh et al. (2012) definitions reflect social media as a platform and useful tool for information exchange with the public as the end user. Weinberg and Pehlivan (2011: p276) explain social media as "*an important conduit to consumers and others (e.g., competitors, employees, suppliers) for a variety of purposes such as listening, information gathering and communication*". Similarly, Weinberg and Pehlivan (2011) definition reflect social media as a useful tool for information gathering and users. However, they make no mention of the platform, technology or software feature of social media. Furthermore, Kietzmann et al. (2011, p. 241) describe social media as "*those interactive web platforms via which individuals and communities share, co-create, discuss, and modify user-generated content*". Kietzmann et al.'s (2011) definition reflect social media as a web-based, interactive and for information sharing by communities.

Collectively, these aforementioned definitions view social media in terms of its platform, software, media, content and tool. Kaplan & Haenlein (2010) definition was adopted in this study based on the previous discussions (definition highlighted the platform and content), their influential work on social media and for the purpose of this study.

Table 2.1 Differences in social media definitions

Authors	Year	Definition	Field/Journal
Mangold and Faulds	2009, p. 359).	Social media is a hybrid in that it springs from mixed technology and media origins that enable instantaneous, real-time communications, and utilizes multi-media formats and numerous delivery platforms with global reach capabilities	Business Horizon
Kaplan and Haenlein,	2010, p. 61	a group of Internet-based applications that build on the ideological and technological foundation of Web 2.0 and that allow the creation and exchange of User Generated Content	Business Horizon
Henderson and Bowley	2010, p. 239	social media is collaborative online applications and technologies that enable participation, connectivity user-generated content, sharing of information, and collaboration amongst a community of users	Communication Management
Malita	2011, p. 748	social media are the tools that facilitate the socialization of content….social media services encourage collaboration, interaction, and communication through discussion, feedback, voting, comments, and sharing of information from all interested parties	Computer science
Weinberg and Pehlivan	2011: p 276	social media is “an important conduit to consumers and others (e.g., competitors, employees, suppliers) for a variety of purposes such as listening, information gathering and communication”.	Business Horizon
Kietzmann et al.	2011, p. 241	social media as "those interactive web platforms via which individuals and communities share, co-create, discuss, and modify user-generated content."	Business Horizon
Kavanaugh et al.	2012: p 482	Social media is a group of Internet-based applications designed to facilitate social interaction and for using, developing and diffusing information through society	Government information
Hoffman et al.	2013, p.29	“The set of web-based and mobile tools and applications that allow people to create (consume) content that can be consumed (created) by others and which enables and facilitates connections.”	

The use of social media has been credited for providing substantial changes in the way businesses, communities and people communicate and interact (Kaplan and Haenlein, 2010; Ngai et al., 2015). As new uses of social media are being discovered, social media remains an emerging phenomenon with its definition and classification still evolving. There appears to be a consensus that social media has the potential to be used as a channel for improving interactions, facilitating networking and building relationships with the broader public. However, the use of social media by businesses has received guarded reservations (Everett 2010; Dijick 2013). Everett raises doubts about the benefits of Social Media to businesses. Some literature seems to propagate the perception that businesses that are not engaged with social media are on the verge of failure. For example, Mentzer (2004) is of the view that the adoption of technology by businesses will be an essential determinant of the ability of businesses to survive and

succeed. Despite such advocacy, it is not unlikely that many successful businesses outside the FTSE visibility are non-users of social media.

Within the literature in the field of business, a glaring gap is that social media is researched mainly within the context of marketing literature and less studied from a Supply Chain context. Indeed, some literature that attempts to explore social media within a supply chain context ends up quickly situating it at the business-to-consumer extremity of the supply chain. This invariably places such studies within the Marketing and Sales field (e.g. Andzulis, et al., (2012; Markova and Petkovska-Mircevska, 2013). However, this study focuses on how the use of social media affects b2b relationships with and between supply chain members.

2.3.1 Classification of social media

In addition to the numerous and varied terms used to describe social media and social media definition as explained previously, there are also many taxonomies of social media. For example, (Kim et al. 2010) presents their classification as - Social Networking Sites and social media. Constantinides (2009) presents their classification as Social Networks; Blogs; Content Communities (Video sharing, Photo sharing, Social bookmarking, Wikis) Forums / Bulletin Boards and Content Aggregators. Mangold and Faulds (2009) their classification as User-sponsored blogs; Company sponsored blogs; Creativity works sharing sites; Collaborative websites; Social Bookmarking; Virtual worlds; Social Networking sites; Invitation only; Business networking sites and others (e.g. help sites). Fischer and Reuber (2011) present their classification as Professional networking; Blogs; Microblogging; Picture sharing; Video sharing; Social Bookmarking; User forums and Social Networking. Solis (2010) presents their classification as Social Networks; Blog/Microblogs; Crowd Wisdom; Q&A; Comments; Social Commerce; Social Marketplace; Social streams; Location; Nicheworking; Enterprise; Wiki; Discussion & Forums; Business; Service Networking; Reviews & Ratings; Social Curation; Video; Content / Documents; Events; Music; Livecasting Pictures, Social Bookmarks; Influence and Quantified Self (see figure 2.1).

Figure 2.1 The conversation prism

Source: Solis (2013)

Lastly, Kaplan and Haenlein (2010) present their classification as Blogs; Collaborative projects; Content communities; Social networking sites; Virtual game-worlds and Virtual social worlds. Collectively the aforementioned authors provide useful taxonomies of social media. However, individually, Kaplan and Haenlein (2010) stands out in terms of the systematic effort for the development of their classification scheme and is thus adopted in this study. See Table 2.2 for the systematic approach is based on theoretical frameworks from social presence and media richness and social processes

Table 2.2: Classification of social media

		Social presence/ Media richness		
		Low	Medium	High
Self-presentation/ Self-disclosure	High	Blogs	Social networking sites (e.g., Facebook)	Virtual social worlds (e.g., Second Life)
	Low	Collaborative projects (e.g., Wikipedia)	Content communities (e.g., YouTube)	Virtual game worlds (e.g., World of Warcraft)

Source: Kaplan and Haenlein (2010)

Although, Kaplan and Haenlein (2010) classification in table 2.2 did not include social media sites like Twitter and LinkedIn, however, for the purpose of the study and the contextual emphasis, virtual game world, virtual social worlds content communities, collaborative projects will not be further discussed given the context of this study.

2.3.2 Types of social media

HBR (2010) found that most used social media by businesses are Facebook (85%), Twitter (77%), LinkedIn (58%) and YouTube (49%). Facebook and Twitter are popular with both individual and businesses, whereas LinkedIn is popular with businesses and professionals. It is worth noting that SM channels are not limited to the public ones like Facebook, Twitter, LinkedIn, YouTube and Pinterest. There are also private SM like Yammer (from Microsoft) and Stream Works (from SAP). As a result of the proposed classification of social media by Kaplan and Haenlein (2010): (1) Blogs and Microblogs (e.g. Twitter); (2) Collaborative projects; (3) Content communities (e.g. YouTube); (4) Social networking sites (e.g. Facebook and LinkedIn); (5) Virtual game-worlds (e.g. World of Warcraft); (6) Virtual social worlds (e.g. Second Life). Only these two: Microblogs (e.g. Twitter) and Social networking sites (e.g. Facebook and LinkedIn) will be further studied to provide an integrated view on social media in supply chain from an SME context. A cursory review of three popular social media platforms, Facebook, LinkedIn, and Twitter is presented in the next.

2.3.2.1 Social Networking Sites (SNS) - Facebook

Social networking sites (SNS) also known as “social network sites” are types of social media (Richter and Koch 2008). According to Kaplan and Haenlein (2010, p.63), social network sites are defined as “...applications that enable users to connect by creating personal formation profiles, inviting friends and colleagues to have access to those profiles, and sending e-mails and instant messages between each other.” Kaplan and Haenlein’s definitions refine SNS to friends and colleagues and define its use to e-

mailing, profile access, and instant messaging. There are many SNS platforms like Xing, Wayn and RenRen, Orkut (in Brazil and India); Vkontakte.ru and Odnoklassniki.ru (popular in Russia), however, the most popular are Facebook, LinkedIn, and Google+ (Colliander and Dahlen, 20011; Digit.ru 2013).

A further attempt to categorize SM was made by Kavanaugh et al. (2012). Kavanaugh et al. (2012) developed a honeycomb framework based on seven Social Media functionalities. The seven interconnected categories are: (1) Identity; (2) Conservation; (3) Reputation; (4) Groups; (5) Presence; (6) Sharing; (7) Relationship. Kavanaugh and colleagues argue that social media sites can exist in more than one group in the framework. For instance, Facebook can occur in several categories such as the relationships, sharing and conversation cell. Facebook facilitates the interaction and building of relationships between users (individuals and businesses) on the online platform. These connections might already have existed offline or could transit from online to other offline connections. Online, users are allowed to define their friends, users create profiles, and according to the specific settings this information can be publicly viewed.

A friend request is sent, and if accepted these friends are permitted to view pictures, videos, chart and post comments on their pages (Markova and Petkovska-Mircevska, 2013). Alternatively, the friend request can be declined, leaving no access to their page or content. Other activities on Facebook include picture tagging, advertising, and marketing. Businesses use social media in a number of ways. For example, business users of Facebook are allowed to interact not only with customers but buyers and suppliers as well. Additionally, information and insights can be obtained from their customers, suppliers and other stakeholders. For example, recommendations, fans, walls (part of a user's social profile where friends and fans with access can leave their comments or critic), likes and dislikes can be viewed (Kietzmann et al. 2011). In summary, Facebook has the potential to generate a flow of information, interactions and foster relationships that ultimately develop into trust amongst members of the supply chain.

2.3.2.2 Microblogs-Twitter

Kaplan and Haenlein 2011, p.106 define microblogs as "internet based applications which allow users to exchange small elements of content such as short sentences, individual images, or video links". There many microblogs like Jaiku, Plurk, and Weibo, however, the most popular one is twitter (Kaplan and Haenlein 2011). According to

Twitter (2014), there were 255 million monthly active users and 78% of active mobile Twitter users in 2014. Twitter is a micro-blogging tool designed to allow users to send messages of just 140 characters or fewer in length that could contain links. Twitter users are both individuals and businesses can be grouped into Information sources, friends and information seekers. Users are allowed to post updates, pictures, information, videos, converse with other users, sharing and seeking URLs Fischer & Reuber (2011). Twitter is a public social media site, and tweets are searchable via search engines and therefore available to view by other users as well. Users can be followed and become "followers". Followers may ignore, read or retweet (resend) tweets of interest to other users (Jansen et al. 2009). Twitter differs from other social networking sites like Facebook as relationships with the users do not require strong relationship ties and following other users require no approval. Kaplan and Haenlein (2011) highlight some standout features of Twitter: 1). the push-push-pull nature of communication 2). The ability to provide awareness due to its popularity 3). It serves as a platform for virtual display.

There is no doubt that Twitter can serve as a tool for information sharing as such businesses in the fashion industry like Zara and New Look post information on new arrivals and shipment. It can be said that in these examples Twitter is being used as a channel for transactional information. Twitter also has the potential to coordinate several members of the supply chain that would be interested in this information and other information like delays, accidents, and natural disasters. This tool is popular with celebrities, top executives, and politicians, who have online followers that are desirous of receiving information broadcasted by these celebrities (Beirut, 2009; Lee et al., 2013a&b). Studies by Fischer & Reuber (2011) found that Twitter was broadly used by small businesses in more contexts other than marketing.

Social media can allow for sharing of information, pictures, interest, blogging, wall-posting, and interactions between individual, online communities, and social networks organizations. However, the boundaries for differentiation seem to overlap and are not clearly defined. For example, Shi et al. (2013) argue that Twitter have overlapping categories as both social networking sites and microblogs.

2.3.2.3 LinkedIn

LinkedIn use is highest among professional and highest among employees aged 26 – 45 (Skeels and Grudin, 2009). LinkedIn is a structured, formal and regulated site where the users can benefit from 1). Fosters information sharing 2). It serves as a source of

credibility rather than unofficial public information. 3). It also used to augment official document such as CV. 4) it serves as a source of scrutiny for supporting systems like hiring. The use of LinkedIn can help SMEs to interact with members of their supply chain to improve collaborative relationships (Michaelidou et al., 2011)

2.3.3 Social media management

Technology, in general, has been a critical tool for economic development and business success (Buhalis, 1998: Wong, 2005; Bayo-moriones and Lera-lópez, 2007). For example, it has been said by technological determinism that technology will change the way business is done. They argue that digital technologies like social media can create new opportunities on the end customer side (identify new opportunities, reduce costs & improve services) and on the supply chain side (improve competitiveness and productivity). While, much attention has been given to demand side (or end customer), on the supply side, however, one crucial factor, relationships are often left out.

For supply chains, technology use is viewed as critical for attaining a level of resource capability and competitive advantage (see: Grant, 1991: Peteraf, 1993: Bharadwaj, 2000: Powell and Dent-Micallef, 1997). Some authors have argued that developing countries have benefited from technology transfers from developed countries (Matsura, 1991: Lall, 2001). On the other hand, many authors have argued that the general living standards of the population in developing countries have not been significantly affected by technology transfer (Gupta and Madhavan, 1995: Lall, 2001). Technology transfer can mean different things to different nations and businesses. For example, to many, technology transfer may mean more competition and fewer technology monopolies, while to others technology transfer can mean exploitation and dominance by few firms (Matsura, 1991). Challenges facing developed countries (such as the UK) include: huge debts and declining export incomes (Matsura, 1991), while challenges facing developing countries (such as Nigeria) includes: a massive population growth, lack of investment capital, lack of adequate infrastructure and lack of political structure (Matsura, 1991). Despite these challenges, both UK and Nigeria have their unique IT infrastructure that supports businesses as well as individuals.

Technology can potentially become a source of conflict between nations, businesses and their supply chain (Matsura, 1991: Lall, 2001). For example, conflicts may arise if the recipient firm perceives that the focal firm/nations are trying to dominate through technology, capital, and production (Matsura, 1991: Yafei and Qianlong 2009). Also, for nations, dependence on foreign technology such as the internet can be viewed as a

threat to its national defence and economic independence (Matsura, 1991: Yafei and Qianlong 2009). For example, in 2014, Google a search engine technology firm revealed that there had been an increase in the request for user data by the government, particularly the US government (Times, 2014). Other technology firms such as Microsoft, Facebook, and Twitter have called for more transparency particularly in the wake of the PRISM surveillance system brought to light by whistleblower Edward Snowden (Times, 2014). As a result, recipient countries like Russia and China are beginning to turn to their local technology. Matsura (1991) points out that country which export technology may experience certain disadvantages besides conflicts of interest. Disadvantages such as unemployment in the home country and future loss of technological advantage can arise as well.

Managing relationships with and between supply chains include understanding the realities of B2B supply chain relationships, designing, defining exceptions, planning for change, facilitating communication between stakeholder, monitoring risks and nurturing interaction (Porter & Donthu, 2008; Mangold & Faulds, 2009; Ngai et al., 2015). As such, the effective flow of valuable information within and across supply chain firms are crucial to managing supply chain relationships, and such SCM may not be effective without IT management. In a similar vein, the ineffective use of IT is also a major hurdle to effective SCM (Mentzel et al., 2000; 2001; 2004 & Fawcett et al., 2008). As such, information sharing is critical to supply chains, and information management is crucial to developing a competitive advantage.

2.3.4 Benefits and challenges of social media

The popularity of social media has expanded rapidly within the past decades. For businesses, this provides a significant basis for direct economic, monetary growth; building reputations; exploring new opportunities. Social media scholars believe that “social media can also sever as tools facilitating intra-organizational and inter-organizational activities among peers, customers, business partners, and organisations such as collaborative product development; creation of knowledge sharing communities; implementation of corporate dialog of financial institutions; market strategies for brand management; collaborative learning and creativity (Ngai et al., 2015 p 33).

The benefits that accrue to firms are therefore numerous in areas such as sales & marketing; operations & distributions; product development; information sharing & portability; real-time information; speedy responses; improving relationships and collaboration (Porter and Donthu, 2008; Mangold and Faulds, 2009; Fernando, 2010;

Kasavana et al 2010; Peppler and Solomou, 2011; Yates and Paquette, 2011; Bonson and Flores, 2011; Andzulis et al., 2012; Jin and Ryan, 2012; Allen, 2013; Laroche et al., 2013). For example, information sharing has mainly been explored from transactional, task and enterprise perspective used to increase efficiency and performance (Lee and Whang, 2000; Yang and Maxwell, 2011). Also, social media can bring information together and make it more accessible which can improve collaborations (CISCO, 2010). However, there exist other perspectives such as information sharing as a means of improving the competitive advantage of supply chains as well (Mason-Jone and Towill, 1997). With the popularity of social media and the increase in internet usage, social media can be considered as one of the ways of sharing information within and across supply chains.

Given these benefits that can accrue to firms for using social media, and given the rising competition (Armano, 2009), SMEs in both developed and developing countries are increasingly compelled to be outward looking in their business relationships to improve information sharing, collaboration and ultimately improve competitive edge.

Although, the importance of social media use in firms cannot be understated, (Everett, 2010) observed that social media use is not without its challenges. The plethora of challenges can be enormous, including regulatory issues; security concerns; technological and operational difficulties; infrastructural differences; differences innovativeness and policies and controls. SCM scholars observe that some challenges (or barriers) can place significant inhibitions on the firm's use of social media (Aula, 2010). Additionally, other challenges have been identified at the level of the decision maker of the firms (see figure) and their environment (Aula, 2010; Kavanaugh et al., 2012; Mcentire, 2012). It is said that challenges can be effective in limiting the benefits that can be earned from social media use (Aula, 2010: Bird et al., 2012).

Given the above and other benefits and challenges associated with social media usage, many researchers consider social media use as a challenging and at the same time, a field of opportunities for business and their business relationships (Ngai et al., 2015) and several efforts have been expended into exploring social media in related themes including social media in SCM (Markova and Petkovska-Mircevska, 2013). Regarding ways of improving businesses acceptance of social media, researchers have examined the technological acceptance of social media (Ngai et al., 2015). Many businesses may readily accept the use of social media, while other businesses may demonstrate resistance to them (Nolan, 2009; Everett, 2010). In other words, business and their employees may accept technological changes, while others can resist such

technological changes. The number of people who accept the use of technological innovations like social media easily and those who resist it may differ from industry to industry and country to country. Generally, there are five classifications of individuals ranked according to their innovativeness: innovators, early adopters, early majority, and resisters. The individuals or firms in each division may depend on the industry and society. For example, if resisters make up a vast majority, the society is predominantly traditional, and the introduction of new technologies and ideas can be met with difficulties (Patterson et al. 2003). In contrast, some modern societies may have a large percentage of innovators, which makes the introduction of new technologies and ideas more acceptable. Such resistance, mentioned earlier may be against some technological products (and its impact), particularly foreign cultures or innovativeness (AT&T, 2011). As such, it is needful to explore the effects of social media use in the supply chain from both the buyer and supplier's point of view.

2.4 Defining Supply chain

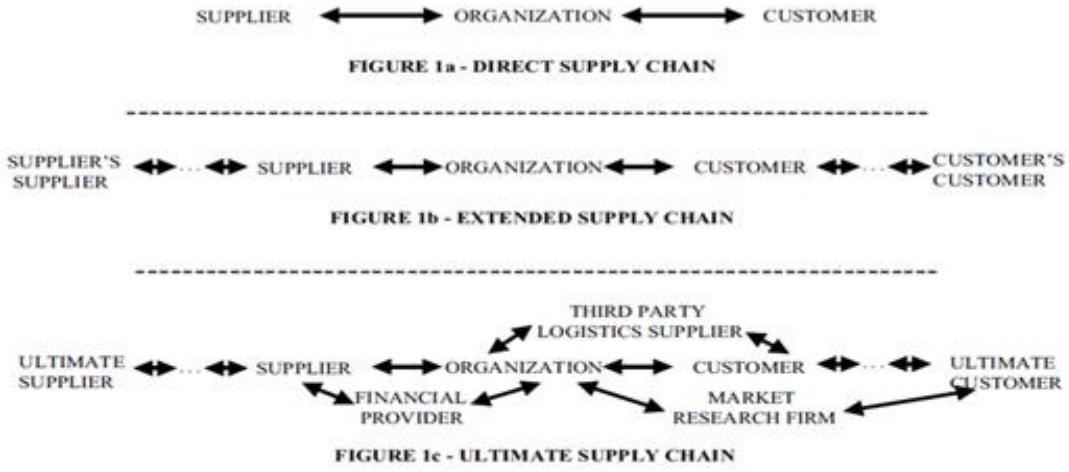
Supply chain by definition is "*a network of firms interacting to deliver product or service to the end customer, linking flows from raw material supply to final delivery*" (Ellram 1991: p14). Kopezak (1997: p 226) describes a supply chain as "*the set of entities, including suppliers, logistics services providers, manufacturers, distributors and resellers, through which materials, products, and information flow.*" Mentzer et al. (2001: p 4) also describe supply chain as "*a set of three or more entities (organizations or individuals) directly involved in the upstream and downstream flows of products, services, finances, and/or information from a source to a customer*."

At a general level, these definitions may appear varied, reflecting the environment in which they operate and focused on particular aspects of supply chains such as functional or organizational elements. For example, Ellram's definition is primarily focused on the materials flow, while, Kopezak's definition emphases the flow of materials and information. However, Mentzer and colleague's definition is focused on integrating the flow of materials and information with the management of relationships in a chain. Amongst these descriptions regarding supply chains, Mentzer et al. (2001) definition are suitable for the aim of this study for three reasons. (1) It provides a broader perspective and dynamics of supply chain than the previous definition. (2) It represents the smallest unit of a chain as a set of three firms (triad), whilst, opening the number of member/actors that can exist. And lastly, (3) supply chains comprises of not only business processes and activities but also about their relationships than the previous

definition, which focused mainly on the movement of materials/goods. In the section that follows next information surrounding the types of the supply chain is discussed.

The typologies of supply chain environment are categorized based on the organizational or functional context (Mentzer et al. 2001). Supply chains, from an organizational context, can be categorized based on either the degree of separation from the focal firms or by their nature (see figure 2.2). The degree of separation of organizations in a supply chain can be categorized as direct, extended and ultimate (Mentzer et al. 2001). The direct supply chain consists of the focal firm, the immediate suppliers, and customers (Mentzer et al. 2001). The extended supply chain is slightly more complicated than the direct ones and seems to be in-between the direct supply chain and ultimate supply chain spectrum. Ultimately, supply chains are composed of all organizations involved with an upstream and downstream relationship with the focal firms, from the ultimate supplier through to the ultimate consumer (Mentzer et al. 2001).

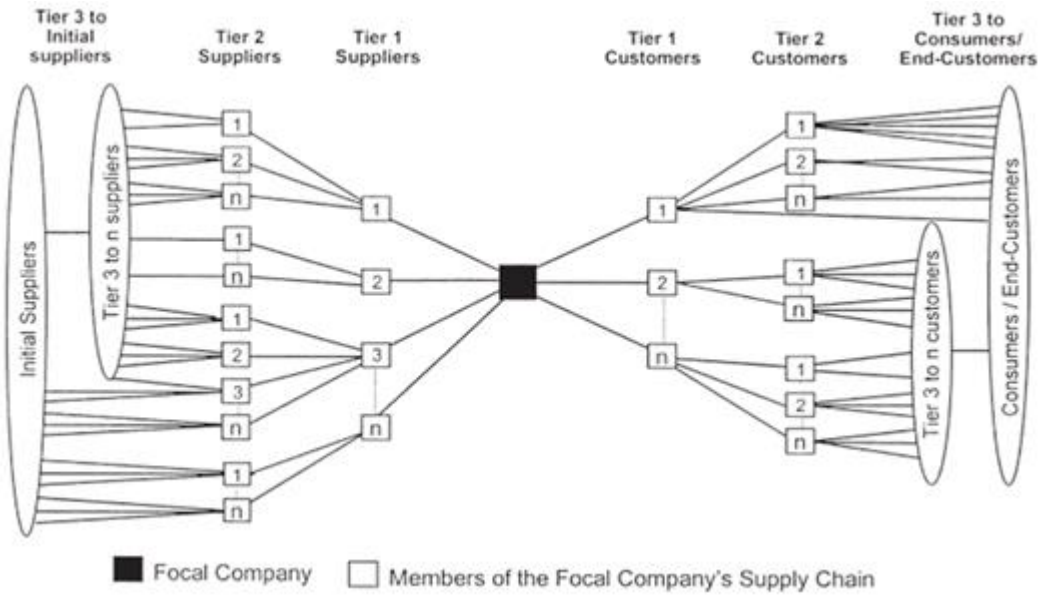
Figure 2.2 Classification of supply chains based on channel relationship



Source: Mentzer et al. 2001

Additionally, an organization in a supply chain can also be classified according to the degree of separation from the focal firm as tier 1, 2 &3 as seen in Fig 2.2 (Lambert and Cooper, 2000). The number of tiers refers to the horizontal ties of the supply chain, which can be short or long depending on the number of suppliers, nature of goods or products and the dynamics of the industry (Mesquita and Lazzarini, 2008). The vertical ties/structure of the supply chain describes the number of organizations within each tier (Lambert and Cooper 2000).

Figure 2.3 Classification of supply chains



Source: Lambert and Cooper (2000)

The nature of the organization in supply chains can be categorized into either primary or support firms. Primary firms can be businesses that directly add value to the specific output while supporting firms can be businesses that add value indirectly or by supporting the primary firms to achieve a specific output. Supply chains in many industries can be more or less complicated than in other business environments due to the diversity of elements at play. The diversity in supply chains across different industries and countries would have to take the environmental and management aspects into consideration.

The supply chain environment is composed of multiple and different independent firms such as buying firms, supplying firms, supplier's suppliers, customers, customer's customer (Mentzer et al. 2001). It is also worth mentioning that every business operates within a supply chain irrespective of size, age, location or industry. As Mentzer et al. (2001, p) highlight this sometimes-overlooked point, "It is important to note that any one organization can be part of numerous supply chains." Tesco, for example, can be part of the supply chain for fashion, for mobile technology, for fresh produce, and for many other products. These multiple links in supply chain demonstrate the supply chain nature that many possess. For example, firms like EE (Britain's largest mobile group) and BT (British Telecoms) might find Huawei (world's second-biggest telecoms equipment provider) to be a customer in one supply chain, a partner in second, a supplier in a third, and finally, a competitor in the fourth supply chain.

Supply chains can combine structures of operation, functions, products, services, technology, geographic formats, and benefits (Myers, and Cheung, 2008a; Myers, 2010). Such supply chains can allow for quick response to market conditions, better competitive advantage, information sharing, geographic flexibility and functional efficiency (Ortmann, 2001.). A supply chain can be more complicated in certain industries than others due to the dynamics of the industry and nature of product or services offered. For example, the personal computer (PC) supply chain may be more complicated than a fresh food supply chain. This is probably because the personal computer (PC) manufacturing firms by its nature involve the supply of many component products/parts and various tiers of suppliers (Christopher, 2011). A supply chain for local fresh produce, such as a restaurant can involve the supply of fresh agricultural produce from the farmers market and transportation from geographical location. In other words, the fresh food supply chain previously mentioned might have lower operational and distribution capabilities than in the case of the PC supply chain. The supply chain is commonly used with the term value chains, commodity chains, global production networks and filière (Raikes et al., 2000, Kaplinsky et al. 2002; Henderson et al. 2002). Supply chains can be managed to varying degrees; this may involve the use of long and short-term business relationships approaches and contracts (Cheung and Rowlinson, 2011). These relationships can vary from a simple transaction to a complex interdependence on, all requiring some level of management of relationships and activities among the members of a chain. As such, there are ongoing debates that competitions are among supply chains as opposed to single firm.

SCM is by definition "*the management of upstream and downstream relationships with suppliers and customers in order to deliver superior customer value at less cost to the supply chain as a whole*" (Christopher 2011 p 3). Another definition by Stadtler (2005 pp 576) describes SCM as "*the task of integrating organizational units along a supply chain and coordinating materials, information and financial flows in order to fulfil (ultimate) customer demands with the aim of improving the competitiveness of the supply chain as a whole*." As such, it seems to be widely acceptable to talk about SCM as the flow of information, transactions, materials, and services. Mentzer et al. (2001 pp18) explains SCM as "*the systemic, strategic coordination of the traditional business functions and the tactics across these business functions within a particular company and across businesses within the supply chain, for the purposes of improving the long-term performance of the individual companies and the supply chain as a whole*." Tan et al. (1998 pp 3) provides a summary of SCM, emphasizing that SCM "*focuses on how firms utilize their suppliers' processes, technology, and capability to enhance competitive advantage*." In general, SCM can cover a wide range of activities,

approaches, and practices, including but not limited to sourcing, marketing, procurement, logistics and collaboration with channel partners such as suppliers, third party service providers, manufacturers, distributors and customers (Chopra and Meindl 2001). According to these aforementioned definitions, SCM is collectively viewed as the subject of the supply chain, consisting of two main components: (1) the firms that comprise a supply chain, and (2) processes that constitute the flows (forward and backward) of movement across the supply chain. Ultimately, the role of SCM is to improve activities, approaches, and practices along supply chains. Christopher's (2011) definition views SCM as a means of providing value by cost reduction. Stadtler's (2005) definition presents the goal of SCM as a means of improving competitiveness. Mentzer et al.'s. (2001) definition present the goal of SCM as a means of improving the performance of the supply chain. Whereas, Tan et al.'s (1998) definition view SCM as a means of improving competitiveness by using the supplier's resources. Collectively the combined definitions of supply chain and SCM involve the integrating of suppliers, and its effective fulfilment to improve financial gains, information and relationship management along supply chains. It is worth mentioning that though there are many varying definitions of SCM and there appears to be no consensus on single, universally accepted definition. It is not however surprising that the various definitions differ in most cases. The definition for SCM used in this study is Christopher's (2011) definition. The key emphasis here is on the management of relationships with and between the supply chain. The notion that competition is no longer amongst individual businesses but between the supply chains is beginning to make businesses collaborate with members of their chain to gain a better competitive advantage (see section 2.3.3).

Table 2.1 shows the evolving pathways (e.g., purchasing, supply management and logistics); aims (e.g., profits, efficiency, effectiveness, competitive advantage) and multidisciplinary fields (marketing; logistics; management and operations management) of SCM. These differences in the pathway, focus and multidisciplinary fields of SCM may help to account for the variances in SCM definitions. As a result, the definition of SCM adopted in the study mainly depends on the research pathway and areas of interest (SCM, RM, social media and SME competitiveness). Tan et al.'s (1998) definition are relevant to the aim of research because it focuses on improving competitive advantage via the resource (e.g., technology use) of the supplier which matches the aim of research. It is worth noting that many early definitions of SCM focused on creating efficiencies and effectiveness while many latter definitions focused on filtering and integrating the ethos across the network of supply chain firms. However, these definitions remain heavily focused on activities like scheduling, planning,

purchasing and cost, leaving little room for deliberation on supply chain relationships and relationship management.

Table 2.3 Differences in supply chain management (SCM) definitions

Authors	Year	Definition	Field/Discipline
Berry et al	1994, p. 20	"Supply chain management aims at building trust, exchanging information on market needs, developing new products, and reducing the supplier base to a particular OEM (Original Equipment Manufacturer) so as to release management resources for developing meaningful, long-term relationship."	Physical Distribution & Logistics Management
Harland	1996 p, 64	"Network of connected and interdependent organizations mutually and cooperative working together to control, manage and improve the flow of materials and information front suppliers to end customers."	Management
Cooper et al	1997, p. 2	"The integration of business processes from end-user through original suppliers (that provides products, services, and information), which adds value to customers."	Logistics Management
Lee and Ng	1997, p. 191	"The management of upstream and downstream relationships with suppliers and customers in order to deliver superior customer value at less cost to the supply chain as a whole."	Production & Operations management
Tan et al.,	1998, p.3	"SCM focuses on how firms utilize their suppliers' processes, technology, and capability to enhance competitive advantage. It is a management philosophy that extends traditional intra-enterprise activities by bringing trading partners together with the common goal of optimization and efficiency."	SCM
Lambert et al.	1998a, p.1	"SCM is the integration of key business processes from end user through original suppliers that provides products, services, and information that add value for customers and other stakeholders."	Logistics Management
Simchi-Levi et al	2003, p.1	"a set of approaches utilized to efficiently integrate suppliers, integrate suppliers, manufacturers, warehouses, and stores so that merchandise is produced and distributed in the right quantities, to the right locations, and at the right time, in order to minimize system-wide costs while satisfying service level requirements."	SCM
Van der Vorst and Beulens	2001, p 410	"SCM is the integrated planning, coordination, and control of all business processes and activities in the supply chain to deliver superior consumer value at minimum cost to the end-consumer while satisfying requirements of other stakeholders."	Logistics Management
Ellram et al.	2004, p .17	"Supply chain management is the management of information, processes, goods, and funds from the earliest supplier to the ultimate customer, including disposal."	SCM
Monczka et al	2011, p.12	"SCM endorses a supply chain orientation and involve proactively managing the two-way movement and coordination of goods, services, information and funds (i.e., the various flow) from raw material through end user."	Purchasing & SCM
Christopher	2011, p.3	"The management of upstream and downstream relationships with suppliers and customers in order to deliver superior customer value at less cost to the supply chain as a whole."	Logistics & SCM

Source: Author

2.4.1 Supply Chain Management

Although the precise origin of SCM is not well known, its introduction has been largely attributed to consultants in the early 1980s, and to a key influential author who is equally commonly cited -Jay W. Forrester (Forrester, 1968; Bueno-Solano and Cedillo-Campos, 2014). Over five decades later, Forrester's ideas relating to distribution (physical), industrial dynamics, organizational relationships, and transportation are still relevant (Cooper et al., 1997; Mentzer et al. 2001; Croom et al. 2000). Despite the invaluable contributions made by Forrester, SCM literature is not only riddled with a variety of definitions and perspectives (e.g., Chin and Tat 2015) but a lack of a common consensus on relevant SCM constructs as well. Table 2.4 shows the variation in constructs or instruments in studying SCM practices. In their study of the underlying measurements of SCM practices, Lambert and Cooper (2000) grouped 9 individual SCM practices into two categories; the technical and the managerial management factors. The following 9 factors are briefly outlined next: 1) planning and control; 2) workflow; 3) organizational structure; 4) communication and information flow; 5) product flow; 6) management methods; 7) power and leadership structure; 8) risks and rewards; 9) culture and attitude.

The first construct -planning and control, refer to the necessary practice that helps move supply chains into a preferred direction (Carter et al., 1998; Lambert and Cooper 2000). The second construct -the workflow can refer to the activities and task a firm performs, and the integration of the supply chain (Lambert and Cooper, 2000). The third construct, -organizational structure- refers to a process approach that involves the key firm, their cross-functional team and the supply chain in which they operate in (Lambert and Cooper, 2000). The fourth construct, -Communication and information flow- refers to the kind of interaction and information shared among supply chain members (Lambert and Cooper, 2000). The fifth construct, -product flow- refers to the structure for distributing, manufacturing and sourcing among the chain (Lambert and Cooper, 2000). The sixth construct -management methods encompass the techniques and philosophy of businesses (Lambert and Cooper, 2000). The seventh construct, -power and leadership structure- does influence supply chains as this can positively or negatively drive the strategic direction of the business (Lambert and Cooper, 2000). The eighth construct, -risk and rewards- do positively or negatively influence the commitment of supply chain members (Lambert and Cooper, 2000). The ninth construct, -culture and attitude of supply chains firms- do influence the level of flexibility and efficiencies (Lambert and Cooper, 2000).

Furthermore, Chen and Paulraj (2004) provided a list of 9 individual SCM practices. The following 9 factors are briefly outlined next: 1) environmental uncertainty; 2) customer satisfaction (focus); 3) top management support; 4) supply strategy (competition); 5) IT; 6) supply network structure; 7) managing buyer-supplier relationships; 8) integration of logistics; 9) performance management. The first construct, -environmental uncertainty- can be grouped into three forms: supplier, manufacturer and demand uncertainty (Tang 2006). The level of market uncertainty can be influenced by the degree of competition and technological innovation (see, Miller, 1992; Handfield, 1993; St. John and Heriot, 1993; Stuart, 1993; Van Hoek, 1998; Krause, 1999; Chen and Paulraj 2004). The second construct, -customer focus- refers to the firm's ability to sense and respond to the demand of their customers (Koh and Tan 2006). As such, the customer (B2B or B2C) are a key element to any strategy (Stalk et al., 1992; Ahire et al., 1996; Carson et al., 1997; Tan et al., 1999; Berthon et al., 2007). The focus of customer demand has resulted in the increased variety of products and services in markets. The third construct, -top management support- refers to the commitment of resources such as financial, time, and staff members to support the supplier (or buyers) (Hahn et al., 1990; Monczka et al., 1993; Ward et al., 1995; Krause, 1999; Chen and Paulraj 2004). The role of top management in the allocation of resources particularly relationship development and the adoption of IT cannot be understated (Hahn et al., 1990; Monczka et al., 1993; Krause and Ellram, 1997; Krause, 1999; Chen and Paulraj 2004). The fourth construct, -supply strategy- integrates interactions; competitive advantage and purchasing influence among supply chain members (Corbett and Van Wassenhove, 1993; Miller and Roth, 1994; Stock et al., 1998; Kathuria, 2000; Santos, 2000; Jaafar and Rafiq 2005).

The fifth construct, -IT- helps to transform the way exchanges are carried out and can possibly affect the nature of the linkages between supply chain counterparts (Kumar and van Dissel, 1996; Greis and Kasarda, 1997; Karoway, 1997; Palmer and Griffith, 1998; Radstaak and Ketelaar, 1998; Carr and Pearson, 1999; Christiaanse and Kumar, 2000). The sixth construct, -supply network structure- refers to a firm and its supply chain members. This encompasses the authority, coordination, and task across supply chain firms that can improve supply chain performances (Miles and Snow, 1986; Snow et al., 1992; Alter and Hage, 1993; Jones et al., 1997; Stock et al., 1998, 2000; Harland et al., 1999; Lambert and Cooper, 2000; Croom, 2001; Chen and Paulraj, 2004). The seventh construct, -managing buyer-supplier relationships refers to the selection of members; developing long and collaborative relationships; plus, the coordinating of communication and interaction among supply chains (Li et al. 2006). As such, managing supply chain relationships involves collaborative and profoundly relationship management with suppliers and buyers long-term (Krause and Ellram, 1997; Shin et al., 2000; Mentzer et

al., 2008). The eighth construct, -logistics integration- partakes to the firms and their supply chain for which inventory is concentrated and requires jointly managed the exchange of information between the supply chain counterparts (Sink and Langley 1997; Stock et al., 1998 & 2000; Perçin and Min 2013). The ninth construct, -performance management- can be said to be interwoven and has significant effect on quality (Vickery et al., 1995; Beamon, 1999; Jayaram et al., 1999; Neely, 1999; Kathuria, 2000; Medori and Steeple, 2000; Rahman 2004; Mistry 2005a & 2005b; Teng et al., 2005; Cavusgil and Cavusgil 2012). Despite, these many and varied SCM practices by scholars, i.e. Lambert and Cooper (2000) & Chen and Paulraj (2004), managing relationships -buyer-supplier (the 6th construct) (as well as supplier-supplier) cannot be overstated.

These relevant and previously mentioned literature provide knowledge and information that SCM can enhance supply chains and their relations which can provide a competitive edge. Although, these studies as Tan (2001) points out were targeted at many large (automobile) manufacturing and (few) services firms, this argument can also be applied to SMEs. For instance, collaborative supply chain relationships with buyers or suppliers, including effective relationship management and information sharing, could result in better competitive advantage (Choi and Messinger, 2015) that is needed and provides stability. Furthermore, relationships with buyers and suppliers are generally found to be an essential factor for SMEs to understand their competitive advantage, strategic selection; information sharing, information systems use and relationship management process (Bruque and Moyano, 2007). In the section that follows next, the benefits and challenges of SCM are discussed.

Table 2.4 The evolving themes in supply chain management construct

Author (s) and year	Year	Key themes and constructs		Type of study	Key findings
Lambert and Cooper	2000	Planning and control; workflow; Organizational structure; Communication and Information flow; product flow; Management methods; Power and Leadership structure; Risks and rewards; Culture and attitude		Empirical research	The study provides a conceptual view of SCM and addresses questions about implementation.
Mentzer et al.	2001	Integrating the definition of SCM; Integration of behaviour and processes; Mutual information sharing; Mutual Risks and rewards; Cooperation; Alignment of goals; Long-term relationships.		Conceptual research	The study provides a broad conceptual view of SCM and integrates the many frameworks of SCM from different perspectives.
Chen and Paulraj	2004	Environmental uncertainty; customer satisfaction (focus); top management support; Supply strategy(Competition); Information Technology; Supply network structure; managing Buyer-supplier relationships; Integration of logistics; Performance management		Conceptual research	The study identifies and validates key constructs underlying SCM studies. They conclude that SCM should not focus on individual efforts, but rather, collectively as supply chains.
Stadtler	2005	Supply networks; Partnership selection; Leadership; ICT; Planning and control; business processes		Conceptual research	The study provides a broad conceptual view of SCM and advanced planning.
Li et al.	2005	strategic supplier partnership; customer relationship; information sharing; information quality; internal lean practices; and postponement		Conceptual research	The study provides a parsimonious measurement instrument for evaluating the supply chain performance.
Burgess et al	2006	Leadership; Intra and inter-organizational relationships; Logistics; Process improvement; information sharing; Results and outcomes		Theoretical research	The study highlights SCM as an evolving field with multi-disciplinary roots. They also point out the lack of consensus on a single definition and raise concerns on how SCM research has focused heavily on the manufacturing industry; predominantly.
Williamson	2008	Transactional cost; Contracting; Outsourcing; Supply chain actors		Conceptual research	The study suggests that transaction is the basic unit of analysis. They view contracts from an economic perspective, discuss the different styles of outsourcing, and operationalization of TCE for the supply chain literature.
Cheung et al.,	2010	Knowledge sharing; Value creation; Buyer-seller relationships; Cross-border research		Empirical research	The study conceptualizes B2B (supply chain) relationships as collaborative learning activities that both buyers and suppliers can aim to create value collectively rather than individually.

Source: Author

2.4.2 Benefits and challenges of SCM

The manufacturing supply chain is still of importance to the nation's economy. In 2013, it contributed an estimated £148 billion to the UK economy in terms of Gross Value Added (GVA), thus accounting for 10% of the UK economy (HM Government, 2015; Hennik Research, 2016). This provides a significant basis for the economic development and growth for the UK government and provides an avenue for expansion, competitive advantage and innovation for individual businesses. SCM scholars believe in "(1) mutual Information sharing; (2) integrated behaviour (3) mutual risks and rewards sharing; (4) cooperation (5) shared goal and focus; (6) process integration; (7) building and maintain long-term relationships among supply chain members are required to implement an SCM philosophy" (Mentzer et al. 2001, p.7-10). The benefits of SCM to supply chain firms are numerous: SCM can: create (and sustain) their competitive advantage (Mentzer et al., 2001; Gimenez, and Ventura, 2003; Sheffi, 2005; Li et al., 2006; Ireland and Webb, 2007); improve collaboration (Attaran, 2004); improve information sharing (Mentzer et al, 2001; Cooper et al. 1997) improve B2B relationships (Mentzer et al. 2000 & 2001) and innovation (Cooper et al., 1997; Kim, 2000; Bruce et al., 2004; Zhu and Sarkis, 2004; Håkansson and Persson, 2004). Additionally, it is a source of inventory reduction (Bechtel and Jayaram 1997; Christopher, 2011), improved delivery service (St John and Heriot, 1993), and shorter product development cycles (Chicksand et al., 2012).

Some scholars (Cannon and Perreault,1999; Cannon et al. 2010; Claycomb, and Frankwick, 2004; Ambrose et al., 2010) are quick to differentiate the benefits of SCM to the buying and supplier firm while other scholars provide generalizable merit of using SCM. For example, SCM can also be a means for increased inventory turnover (Callioni et al., 2005) increased revenue (Attaran, 2004; Ferdows et al., 2004); cost reduction (Daugherty et al., 2005); decreased order cycle times (Christopher, 2011); managing the bullwhip effect (Lee et al, 1997; Attaran, 2004); and improved product availability (Leonard and Cronan, 2002; Leonard and Cronan, 2002). And finally, it can improve forecasting (Stank et al., 1999) market responsiveness (Ferdows et al., 2004); added economic value (Anderson et al., 2000; Fine, 2000;); capital utilization (Christopher, 2005) decreased time (Metz, 1998; Mentzer et al., 2000; Lee, 2004;); and logistics cost reduction (Cooke, 1997; van der Vorst and Beulens, 1999; Lee, 2004). Petersen et al., (2008) posit the benefits of SCM to buyers as means of cost reduction; better time delivery (compression) and innovation while (Cousins et al., 2006) posit the benefits to suppliers are better (order) volumes and growth.

Despite these benefits of SCM to the success of many firms, New (1997) observes that SCM is not without its challenges. There exist a plethora of challenges, including the inability to meet or sense (customer) demand (Hendricks and Singhal, 2003); managing supply chain relationships (Christopher, 1996; Goffin et al, 2006; Contractor and Lorange,1988); quality and production issues (Sharma, and Bhagwat, 2007); control issues (Kotler, 1997); poor collaborative planning (Christopher, 2005); risk (Arifin, 2013); higher inventory (Dubois and Gadde, 2000); and lower sales growth (Hendricks and Singhal, 2005). SCM scholars like Fawcett et al., (2008) observe that these challenges can have a significant impact on the firm's ability to meet (and/or sense) demand and cost incurred. Other challenges have been identified as having numerous and varied definitions of SCM. For example, Burgess et al. (2006) also add that of the 100 randomly selected SCM articles analyzed, only 12 articles made use of distinctive definitions, 21 referred to previously established ones, 9 modified slightly and over half the sample size (58) left SCM undefined. Additionally, Stock and Boyer (2009) further highlights that over 173 definitions were obtained from the 100 books and journals reviewed. It is argued that many SCM literature tend to refer to similar concepts or ideas using different acronyms and idiom which adds to the confusion and limits the benefits that can be obtained from SCM practice (Mentzer et al., 2001; Lambert et al. 2005; Fawcett et al., 2008).

Given these benefits and challenges associated with supply chains, researchers are beginning to consider supply chains as a challenging and yet at the same time, a promising area of interest (Contractor and Lorange, 1988; Adobor, 2006; Selviaridis et al. 2008). Many attempts have been made to explore a variety of supply chain relates themes including relationships with and between supply chain firms (Choi et al., 2002 & 2005). SCM researchers have examined several important themes including the market environment (eg., Seuring, and Müller, 2008; Alexiev et al., 2016); supply chain strategies (e.g., Lee, 2002; Hilletofth and Hilmola, 2010.); firm size (eg., Awheda et al, 2016; Harland et al, 2007; Ceci and Iubatti, 2012;); supply chain firm characteristics (e.g., Mohr and Spekman 1994; Knemeyer and Murphy, 2005; Dey et al, 2008); strategic orientations towards the markets (e.g., Skinner, 1969; Slack, 1991; Sunil and Meindl, 2001) resources and capabilities (e.g., Sako, 2004; Lai et al, 2008); information sharing (e.g., Lee et al, 2000; Fiala, 2005; Zhang and Cheung, 2011.); trust and commitment (e.g., Das et al, 1998; O'Leary, 2012; Johnston et al 2004; Chen at al, 2011); level of transactional exchange (e.g., Dyer, 1997; Sahay, and Maini, 2002; Whipple et al, 2010); innovativeness (e.g., Ahuja, 2000; Ceci, and Iubatti, 2012: Fawcett et al 2012); competitive advantage (e.g., Gimenez and Ventura, 2003 ;Cousins, 2005; Li et al 2006).

There seems to be a lack of consensus on a universal definition of SCM (Burgess et al., 2006; Storey et al., 2006; Chicksand et al., 2012; Fayezi et al., 2012; Pilbeam et al., 2012; Wilding and Wagner, 2012). Since the early nineties, much research into SCM has focused mainly on improving the manufacturer's efficiency that resolves problems such as delays; uncertainties; transportation; warehousing; inventory management and logistics. However, there is a scarcity of research that supports the benefits of SCM, and a number of studies focus on the manufacturing industry with automotive firms such as Toyota and Nissan (Jarillo and Stevenson 1991). Lamming et al. (2000) pointed out that one limitation is that research is usually focused on the manufacturing industry and a few mass services enterprises. As such, the benefits of SCM are self-evident for many larger firms (Hong and Jeong, 2006; Emitt & Christoffersen 2009) but less apparent with other supply chain members (smaller firms). It can be said that these studies have played key roles in understanding the determinants of supply chain relationships that can better their competitive advantage and improve innovation. Nonetheless, there is a need to understand the contributing factors that affect relationships with and between supply chain members better. Consequently, the sections that follow next collectively paint a picture of the themes that affect relationships with and across supply chains based on the literature assessment of SCM and related literature such as relationship management.

2.5 Defining relationships

The development of sustainable competitive advantage has been closely linked to collaborative relationships (Balakrishnan and Geunes 2004). Although the definition of relationships is covered sparingly within business literature sources, one discipline that provides a definition is psychology. Berscheid and Pelau (1983 p.12) explain that people or parties are in a relationship if they "have an impact on each other . . . if they are 'interdependent' in the sense that a change in one person causes a change in the other and vice versa." The Berscheid and Pelau definition explains that relationships exist when separate parties (a buyer and a supplier for example) form associations that have an influence on each other. This simply means that an action by the buyer can affect the supplier in the same relationship. Relationships can be said to reflect their environment (Pagell and Krause, 2004; Wong et al. 2011), they can be simple or complex in nature, formal or informal and they can develop over time or short-term (Dwyer et al. 1987). Hingley, (2005) argues that relationships are deeply embedded in the environment in which they operate and the degree of transaction making it challenging to manage and change.

2.5.1 Relationship management

The management of relationships is not fully understood, particularly as there are ongoing debates from the different viewpoints (buyer vs supplier; SMEs vs non-SMEs; transactional vs relational) and as competition within supply chains continue to increase (Contractor and Lorange,1988; Blackburn,1991). Although the efficacy of relationship management has been well researched, relationship management in supply chains remains not well understood. There appears to be a limited understanding of the perspectives of the different supply chain counterparts (e.g., suppliers, buyers, and customers) and their approaches (supplier management & relationship management). It is believed that the use of (business) relationship management can provide conditions for improved competencies, increased transactions, better flexibility, better collaboration, information sharing and ultimately improved opportunities to compete (Wilding, 2006; Selviaridis et al., 2008: Solakivi et al., 2011). Relationship management (RM) is a relational oriented approach borrowed from a marketing concept known as relationship marketing (Gronroos, 2000; Gummesson, 2001) which can be traced back to the industrial and service marketing literature of the 1980's. Some influential authors in this field include Berry (1983: 1995& 2002) and Kotler (1997). RM, in many cases, replaces the traditional transactional-oriented with relationship-oriented, single exchange with continuous exchanges. However, like SCM, there appears to be no universal consensus on a single and universal definition of RM as such there are many definitions of RM that appear varied.

For example, Berry (1983, p. 25) describe RM as activities that "Attracting, maintaining, and—in multi-service organizations- enhancing customer relationships." Similarly, Morgan and Hunt (1994, p. 22) present RM as "activities directed toward establishing, developing, and maintaining successful relational exchanges." Gronroos (1997, p. 407) explain RM as a "process of identifying and establishing, maintaining, enhancing, and when necessary terminating relationships with customers and other stakeholders, at a profit, so that the objectives of all parties involved are met, where this is done by a mutual giving and fulfilment of promises." Harker (1999, p. 16) describe RM as "organization engaged in proactively creating, developing and maintaining committed, interactive and profitable exchanges with selected customers [partners] over time." According to Sheth and Parvatiyar (2000, p. 9) RM is "the ongoing process of engaging in cooperative and collaborative activities and programs with immediate and end-user customers to create or enhance mutual economic value at reduced cost."

These aforementioned definitions overlap in term of 1) target audience (business to consumers-B2C, business to business-B2B or both relationships); 2) relationship phases (identifying, building, sustaining or terminating) and 3) benefits (focal firm or stakeholders). For example, Berry's definition is focused on two stages of relationships-building and sustain. The author appears to target "B2C" relationships but makes no mention of the beneficiaries of RM. Similarly, Morgan and Hunt's definition adds that "identifying" to the phase of relationships, the authors appear to take targets all supply chain parties and claim benefits are collective. Gronroos' definition goes further to add terminating to the stages of relationships; the author appears to target both B2B and B2C relationships and makes a common claim that benefits both focal firms and the wider stakeholders. In contrast, Harker's definition does not make mention of the "terminating" phase but make mention of identifying, building, sustaining phases of relationships. The author appears to target only the B2C relationship and claims the focal firm as the beneficiary of RM. And finally, Sheth and Parvatiyar definition focuses on only two of the four established phases- identifying and developing relationships. The authors seem to target B2C relationships only and make a collective claim to the benefits of RM. It can be said that individually these definitions tend to overlap, however, collectively they all testify to the usefulness of RM as improved transactional exchanges (resulting in profits); or/and collaboration between supply chain members.

Leonard Berry argues that relational thinking could bring about multiple party benefits (much like the stakeholder paradigm), rather than inequality of benefits in other traditional transactional or adversarial approach. Similarly, Chung, 2011 points out that a change in culture is necessary for other to forge genuinely beneficial relationships. A shift from traditional hierarchies towards a more flat and collaborative supply chain. One common theme is that relationships are fundamental platforms for future exchanges (or profits) and collaborative conditions. RM principles are premised on both collaborative relationships and supply chain member's interactions (Contractor and Lorange,1988; Choi et al., 2002). However, there are ongoing debates as to the exact focus of relationship management (customers or stakeholders). Some scholars emphasise focusing on the customer to improve profits. This reinforces the traditional transactional approach. Others emphasise focusing on the relationship with and between supply chains as a source of profit. This reinforces the contemporary collaborative approach (much like the stakeholder paradigm) (Hingley 2001; Lambert et al., 1998a; 1988b). This has led to change in the way supply chains are viewed. For example, many will argue that competition is not amongst individual firms but rather amongst supply chains. This means that firm 'A' no longer competes with just firms B or C but rather firm A and their supply chain compete with firm B and their supply chain. In other words, supply chains

network competes with each other. There is no doubt that firms do not exist solely but belongs to a supply chain. However, Lambert (2004) refutes these claims and argues that competition is not between supply chains but rather centred on relationships. His argument is that for firm A and B's supply chains to truly compete firm A would not buy from a supplier who sold to firm B or their supply chain. Likewise, firm B would not sell to the firm A and their supply chain. It can be argued that if firm A buys and sells from a shared pool of suppliers and customers as firm B, can supply chains truly compete with each other?

Collaborative relationships can be grouped as Type 1, 2, and 3. Type 1 collaborative relationships are characterized by coordinating and planning of activities with and between supply chain firms on a short-term basis. Type 2 collaborative relationship is characterized by the coordination and integration of activities on a long-term basis. Finally, Type 3 collaborative relationship is characterized by significant levels of operational integration on a permanent basis. In this case, each firm of the chain is viewed as an extension of their own firm. Thus, the ability to obtain collaborative relationships with and between members of a chain is becoming viewed as a source of competitive advantage.

Despite these proposals, many relationships, particularly in the food retailers and their suppliers, have been characterized as adversarial, which aim at cost reduction for customers, price war for their competitors and potentially improve profit (Hingley 2001). Authors (e.g. Selviaridis & Spring, 2007; Selviaridis et al., 2008; Li et al., 2012; Bachmann and Witteloostuijn, 2009) have advocated that in B2B relationships, both parties need to manage issues rooted in trust, information sharing, interactions, contracts, culture and support. Although, the need for collaborative supply chain relationships through RM, is beginning to attract attention, however, the concept of RM in SCM still remains underdeveloped (Hingley 2001).

2.5.2 Benefits and challenges of relationship management

One of the main benefits of adopting relationship management is to achieve collaborative relationships. Building and maintaining collaborative relationships with supply chain firms is important for all firms including SMEs and their supply chain. For supply chains, it provides increased competitive edge; flexibility; drives down cost/prices; improve operations and efficiency; reduce conflict; information sharing and creating better value for money. For individual business, it provides increased competitive edge, fostering innovation, building and sustaining beneficial relationships;

improve operations and efficiency (Cooper et al., 1997; Chen et al., 2009; Juga et al., 2010; Knemeyer and Murphy, 2005a: 2005b). The rationale is that in cases of increased market competition and scarce resources, forging collaborative relationships with key suppliers facilitates trust. This provides opportunities to share information and discover inefficiencies in supply chains. Myers and Cheung's (2008a) study supports this view. Myers and Cheung's suggest that many supply chains are finding ways of improving their competitive advantage by eliminating waste and creating innovative means to make collaborative relationships in supply chains become more beneficial in formerly unexplored ways. Other innovative ways include: reducing operational costs within the chain and increasing sales volume from downstream buyers and word-of-mouth referrals. This point is buttressed by the number of supply chain partnerships that have survived due to collaborative relationships with buyers and suppliers (Myers and Cheung, 2008b; Myers, 2010). The first argument by Myers, (2010) (presented in this paragraph of this section) views supply chain relationships from cost efficiencies and economic conveniences standpoint. While, the second argument which is also by Myers, (2010) (presented in this paragraph) goes beyond cost efficiencies and economic conveniences, it shows an inclusive and collaborative standpoint.

Given these benefits that can accrue to firms for collaborative relationship management, and given the rising competition (Qureshi et al., 2009; Tsai et al., 2012), businesses in both developed and developing economies are increasingly compelled to look into their business relationships. Despite the importance of collaborative relationships with firms and their supply chains, scholars (like Myers, 2010) have provided some criticisms on the benefits of long-term collaborative relationships in supply chains. This contrary perspective, view long-term collaborative relationships in the supply chain are only beneficial in the long run. The argument here is based on the 'survival of the fittest' (Darwinian struggle). The rationale is that as market competition become fierce, the competition for resources such as raw materials, energy, and financial funding become fiercer. Competition within the supply chains for increasingly diminishing profits will increase, and collaborative relationships amongst formally collaborating suppliers or buyers will inevitably unravel. This point is buttressed by the number of supply chain partnerships (relationships) that have deteriorated between buyers and suppliers over the past eight years (Myers, 2010).

Authors (e.g., Hilletofth and Hilmola, 2010; Lai et al., 2012) suggests that collaborative relationships require high degrees of trust and commitment and interdependence which can be challenging. The plethora of challenges (or barriers) to collaborative relationships include; transactional issues (i.e. late payment and budget pressures); power abuse;

culture (innovativeness); low reputation, low reciprocity; lack of transparency; poor interactions; reluctance to adopt changes and opportunistic behaviours (Kemppainen and Vepsalainen, 2003; Wilding and Humphries, 2006; Humphries and McComie, 2012). There is also a possibility of falling into opportunistic relationships. For example, a supplier or buyer could divulge trade secrets to competitors or turn from the partnerships to become competitors themselves. It is not surprising that effective collaborative relationships are seldom achieved in practice and serve as a continued source of missed opportunities and frustration. Other barriers have been identified include the level of trust, commitment, and risk of increased dependency with and between supply chain firms (Halldorsson and Skjøtt-Larsen, 2006; Hilletofth and Hilmola, 2010). It can be argued that these challenges can be operative and effective in limiting the benefits that can be earned from the management of supply chains (Chen et al., 2011; Tsai et al., 2012).

2.6 Small and Medium-sized Enterprises (SMEs)

2.6.1 SMEs as source of competitive advantage

The SCM literature studies competitive importance mainly from large firm's perspective rather than from small business perspective (Danagyach and Deshmukh 2001; Rytter et al., 2007; Chi 2010; Nauhria et al., 2011; Zannon et al., 2012). Thus, there is limited knowledge about the competitive advantage of SMEs. Despite this negligence, scarce studies like (Littunen, 2000: Gupta and Muita, 2013; Baker, and Sinkula, 2009) have found that the perceived competitive priority in SMEs tends to be owner-centric by following the business owner's informal strategies. Porter (2008) maintain that firms should drive competitiveness through cost or differentiation. Kethuria (2010) agree that quality (differentiation) and cost as an essential prerequisite for firm's competition and success. He goes further to add that quality is also needful as products/services with poor quality fail to sell.

Although, there is no common consensus in SCM literature regarding which strategy is most suited to the unique nature of SMEs. However, given that SMEs suffer more restraints than their larger counterparts the question is if SMEs should focus on a single source rather than multiple sources/priorities of competitive edge. For example, findings from Thürer et al*.,* (2013) revealed that SMEs in Brazil manufacturing sectors used multiple strategies focused on cost, price, quality, flexibility and innovativeness to compete better. Lawrence (2008) also found that small businesses competed on either "cost, delivery and quality" or "flexibility and quality". More studies (e.g. Kathuria, 2000: Sum et al., 2004 and Ebben and Johnson 2005) supports the view that SMEs focused on multiple sources to improve their competitive edge. Ebben and Johnson 2005 found that SMEs which focused on efficiency or flexibility had a better competitive advantage.

On the other hand, authors (e.g. Arias-Aranda, 2002: Wood et al., 2014) advocate that SMEs should pursue fewer sources of competitiveness. Aris-Aranda et al. (2001) add that larger firms are more inclined to pursue service-oriented strategies while small businesses were more inclined to pursue more custom-oriented strategies and medium-sized businesses were more inclined to pursue process-oriented ones. However, authors (e.g. Lowson, 2003: Zanon et al., 2012) notes that essential factors like the type and nature of the industry and market could also influence these strategies.

2.6.2 SMEs as relationship drivers

SMEs have been well recognized for their ability to drive collaborative (positive) relationships with their customers and their supply chains (Ardjouman, 2014). These relationships with their supply chains can directly or indirectly influence the SMEs ability to compete better. Thus, the importance of maintaining and sustaining existing business relationships cannot be understated for these reasons. 1). Positive supply chain relationships improve interaction and information sharing. 2). Positive supply chain relationships foster collaborations. 3). Positive supply chain relationships promote repeat (and sustainable) transactions. 4). Positive supply chain relationships improve their competitive edge (Ardjouman, 2014).

2.7 Themes surrounding the use of social media in supply chain from SMEs context

2.7.1 Supply chain relationships

There are different ways of viewing relationships in supply chains. For example, relationships can be viewed from an end user (customer) or business standpoint. Business-to-Business (hereafter B2B) relationships are important features in SCM research and practice (Acharyulu and Shekbar, 2012). Trusting B2B relationships with suppliers has the potential to improve the firm's competitiveness (Monczka et al., 2011). A recent review of SCM literature shows that much research has focused on the dynamics of buyer-supplier relationship however the relationships within suppliers (supplier-supplier relationship) and its influence on buyer-supplier relationships have received little attention. This study addresses this void in SCM literature, especially given that in the past, companies owned and managed a good proportion of their supply chain. Today's Supply Chain is, however, different. It often consists of multiple, independent organizational actors from various industries, and sometimes from multiple countries, managing aspects of the chain.

2.7.1.1 Trust in buyer-supplier relationships

Organizational trust has been well researched from various fields particularly, organization behaviour (Mayer et al., 1995, Atuahene-Gima and Li, 2002). The rationale here is that organizational trust leads to reduced transactional cost, increased transactional exchange, facilitates collaboration and increased individual and organizational performance (Williamson, 1993; Rousseau et al. 1998). As such, scholars

like (Puusa ve Tolvanen, 2006) have referred to trust as the “social glue” that brings people together.

The influential journal articles on trust and transactional exchange (from a marketing perspective) are the older articles like Williamson, 1993 and Rousseau et al. 1998. This could be because they provided foundational information on how trust is a key pre-requisite for certain outcomes and how trust aids economic exchanges. The rationale here is that increased interactions lead to higher trust which can lead to more desired outcomes (exchanges).

Other scholars have also explored what factors can facilitate or hinder trust thereby influencing the desired outcomes (Atuahene-Gima and Li, 2002; Kwon et al. 2004). Scholars have found that information asymmetry (imbalance) can hinder trust. This implies that where there is information asymmetry, conditions may occur where the buyer or supplier gets more out of the relationship/ exchange than they deserve.

There are many different and varied definitions of trust in literature; this implies two things: 1). Trust has been studied in different fields and disciplines which has been subjected to interpretation from their perspective. 2). There is yet to be a universal consensus on a universal definition. Trust can be undertaken from a psychological or economic perspective (Rotter 1967; Williamson, 1993; Morgan and Hunt, 1994 & 1999). The psychological orientation deals with attitudes towards trust and attitudes toward trust can influence the chances of transactional exchanges. The economic orientation, on the other hand, deals with the norms, expectation and contractual agreement between buyers and suppliers governing the exchange and protect the adverse effects of information asymmetry (opportunisms) but instead produce the desired expectation of the exchange (Ramaswami, 1997). In this section, the different definitions of trust are presented, the importance of trust will be provided, the typologies are presented, and lastly, the most applicable trust model is proposed.

So how is trust defined? Although, studies into trust has been well researched, there is yet to be a common consensus on a universal definition of trust (Lewicki et al., 2006). Although, trust has been well researched, trust literature is still remains riddled with lots of different definitions see table 2.5. Table 2.5 show these definitions of trust include concepts of expectation (that the other party will behave in a certain way) and vulnerability (tendency to lose value). The common rationale behind this definition is that more the match between the expectations of supply chain members and past outcomes, the more confident a firm gets about current and future outcomes (Parkhe, 1998).

Table 2.5 Different trust definitions

Authors	Year	Definition	Focus/Journal
Sabel	1993 p1133	Trust is the mutual confidence that no party to an exchange will exploit another's vulnerabilities.	Interpersonal relationships in an organizational context
Mayer et al	1995 p712	Trust is the willingness of a party to be vulnerable to the actions of another party based on the exceptions that other will perform a particular action important to the trustor.	Management
Shaw	1997 p22	trust is one's belief that another will meet his/her positive expectations	Management
McKnight et al	1998 p474	Trust is that one believes in, and is willing to depend on another party.	Management
Das and Teng	1998 p492	Trust is the willingness of a partner firm to pursue mutually compatible interest in the alliance rather than act opportunistically.	Management
Sheppard and Sherman	1998 p422	Trust is accepting the risk associated with the type and depth of interdependence inherent in a given relationship	Management
Rousseau	1998: p395	trust is a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviour of another	Management

Source: Author

The most appropriate and most cited definition of trust is adopted in this study- Mayer et al. (1995 p 712) define trust as "*the willingness of a party to be vulnerable to the actions of another party based on the exceptions that other will perform a particular action important to the trustor".* This definition infers that trust is perceived as a risky belief.

It is worth noting that trust literature is riddled with different constructs of trust (). Notwithstanding, there are two main types of trust 1). general trust 2). Relational trust (Couch and Jones, 1997). General trust focuses on an individual orientation towards others while relational trust emphasizes on specific partners and their actions. General trust often based on past behaviours and experiences while relational trust is often based on the strength of the relationship and the trustworthiness (Couch and Jones, 1997, McKnight et al., 1998). There are many ways of looking at trust see table 2.6. Table 2.6 shows the different constructs used in extant research on this topic. These constructs can be divided by trust beliefs and trust behaviour. Worthy of mention is that trust is largely subjective and has been adopted from a relational perspective in terms 1) benevolence 2) competence (ability) and 3) Integrity. Benevolence is defined as "*the extent to which a trustee is believed to want to do good to the trustor, aside from an egocentric profit motive*" (Mayer et al., 1995, p 718). Integrity is defined as "*the trustor*

perception that the trustee adheres to a set of principles that the trustor finds acceptable (Mayer et al., 1995, p 719). Competence is referred to as the "*that group of skills and characteristics that enable a party to have influence within a specific domain*" Mayer et al., 1995, p 717. Should the buyer or supplier show high levels of these three factors, the buyer or supplier is considered to be trustworthy.

Table 2.6: Concepts of trust

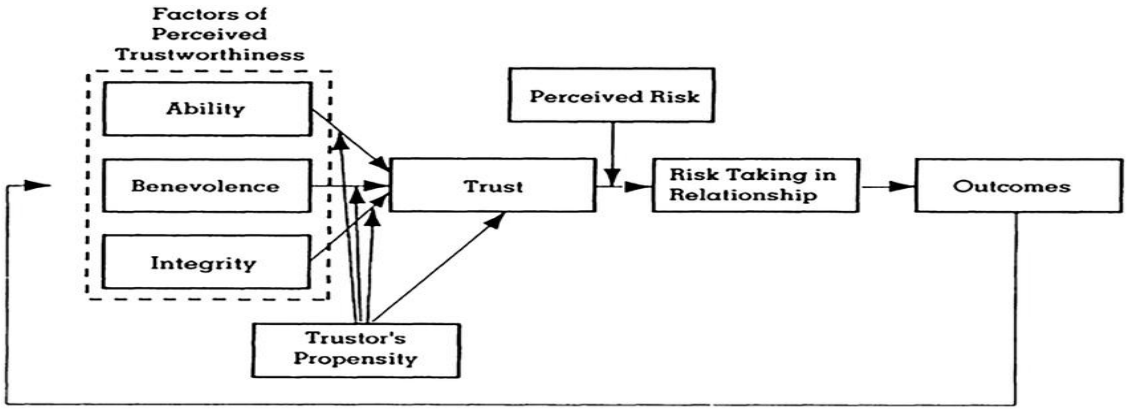
Authors and Year	Type of research	Trust conceptualization	Field/Focus
Giffin (1967)	Conceptual	Integrity, benevolence and competence	Interpersonal relationships in organizational settings
Rempel et al. (1985)	Empirical	Benevolence, predictability and honesty	Interpersonal relationships in organizational settings
Schurr and Ozanne (1985)	Empirical	Fairness, openness and dependability	Buyer-supplier relationships
Zucker (1986)	Conceptual	Contracts and expectations	B2B relationships
Crosby et al. 1990	Empirical	Benevolence, overall trust, and integrity	Buyer-supplier relationships
Mishra and Morrissey (1990)	Empirical	Integrity, confidence and support	Interpersonal relationships in organizational settings
Moorman et al. (1992)	Empirical	Willingness to be vulnerable and intent	B2B relationships
Fukuyama (1995)	Conceptual	Expectations, honesty and collaborative behaviour	B2B relationships
Ganesan (1994)	Empirical	Integrity and benevolence	Buyer-supplier relationships
Ramaswami et al. (1997)	Empirical	Reliability, honesty and trustworthiness	Interpersonal relationships in organizational settings
Gefen (2000)	Empirical	Competence, benevolence and integrity	B2B relationships
Gulati (1995)	Empirical	Expectations and non-opportunistic behaviour	B2B relationships
Kumar et al. (1995)	Empirical	Honesty and benevolence	B2B relationships
McAllister (1995)	Empirical	Competence, shared ideas and willingness to be vulnerable	Interpersonal relationships in organizational settings
Mishra (1996)	Conceptual	Willingness to be vulnerable, competence, openness and reliability	Interpersonal relationships in organizational settings
Hart and Saunders (1997)	Conceptual	Expectations, moral ethics and Integrity	B2B relationships
Zaheer et al. (1998)	Empirical	non-opportunistic behaviour, integrity and trustworthiness	Buyer-supplier relationships
Mayer et al. (1999)	Empirical	Willingness to be vulnerable, competence, benevolence and integrity	Interpersonal relationships in organizational settings
McKnight et al., (1998)	Conceptual	Benevolence, competence, honesty and expectation	Interpersonal relationships in organizational settings

Relational trust in organizational settings has mentioned earlier can be divided into trust belief and trust behaviour (Robson et al. 2008). For example, trust signifies an

employee's belief around the consistency of the organisation's commitment as well as the matching behaviours during uncertain or risky situations (Matthai, 1991). As such, trust is made up of interpersonal and organizational trust. Trust belief can be further divided into calculative trust and Affective trust (McAllister, 1995; McKnight et al., 1998; Robson et al., 2008) while trust behaviour can be further divided into influence receptiveness and forbearance (Robson et al., 2008). Calculative trust can further be divided into deterrence-based trust, knowledge-based trust and identification based trust (Sharpiro et al., 1992; Lewicki and Bunker, 1996; Fisman and Khanna, 1999). Organizational trust evolves as the concept of trust is applied to an organizational setting than a general setting.

Trust is crucial as it can facilitate or impede transactional exchanges in B2B relationships. For example, trust can enable collaborations (Gambetta, 1988) and promote network relations (Miles and Snow, 1992). Trust can be a measure of quality (strength) relationships were factors like relationship length, level of interaction, personal relationships, market environment, contracts, degree of interdependence, joint efforts and firm culture (Parker and Russell, 2004; Corsten and Felde, 2005; Jose Sanzo et al., 2007; Prahinski and Fan, 2007; Huang et al., 2008; Hartmann and Caerteling, 2010; Song and Chatterjee, 2010; Sambasivan and Yen, 2010; Katok and Pavlov, 2013). It is noticeable from these discussions that trust can influence supply chain relationships. However, there is no universal consensus on a single definition of trust and as such identifying trust cannot be easily quantified and remains problematic.

Figure 2.4: A model of trust development



Source: Mayer et al. 1995 p715

2.7.1.2 Power and control

Authors (e.g., Prahinski and Fan, 2007; Jose Sanzo et al., 2007; Huang et al., 2008; Hartmann and Caerteling, 2010; Sambasivan and Yen, 2010; Song and Chatterjee, 2010) suggest that power has a significant impact on supply chain relationships particularly B2B ones. SCM scholars believe that “power is an acknowledged but not often discussed parameter within the context of mutual relationship norms” (Petersen et al., 2008, p.54). As such, the power is not mutually beneficial but exclusive beneficial one or more members of a supply chain and in most cases disadvantageous to others. There are two perspectives of power from previous research. For example, French and Raven et al., (1959) proposed five sources of managerial power widely accepted in literature. They include; A) based on their formal charter of authority: 1) legitimate or formal or bureaucratic power; (2) reward power; (3) coercive power; B) based on competence and qualities (4) expert power; (5) referent power (Gaski, 1986; Singh et al., 2009a: 2009b; Kahkonen and Virolainen, 2011). Legitimate power focuses on the authority held by the formal positioning or legitimately power under charter by the organization’s or market (Singh and Vlatas 1991; Singh et al., 2009a: 2009b). Reward power refers to the authority held when rewards such as money are given or withheld (Singh and Vlatas 1991; Singh et al., 2009a:2009b). Coercive power refers to the authority held by fear; it is based on the premise that the subordinate may be deprived if full compliance is not met (Singh and Vlatas 1991; Singh et al., 2009a; 2009b). Expert power refers to the authority held based on past performance, superior knowledge, expertise (Singh and Vlatas 1991; Singh et al., 2009a: 2009b). Referent power refers to the authority held based on ability to influence followers or subordinates due to friendship, loyalty or respect (Singh and Vlatas 1991; Singh et al., 2009a: 2009b). Recently, the sixth form of power type has been added by Ke et al. (2009) to the Five Bases of Power; this is called information power.

Authors (like Azad and Faraj, 2011) have shown that power and control can have negative (counter) effects on long-term supply chain relationships. On the one hand, coercion power can facilitate environments for low performance, political imbalances, lack of trust and productivity in supply chain firms. On the other hand, not all types of power bases are negative, for example, expert and referent power can be useful in providing support to supply chain counterparts and providing a favourable business environment that facilitates collaborative relationships. Power abuse in supply chains can also create high on the scale of independence, poor/limited information sharing and business uncertainties amongst their members. Much attention in research has been given to social factors like social influence and social capital in social media use (Ngai

et al., 2015), whereas, little attention has been given to other social factors like social power (Wei, 2009). This is despite the importance of social power theory in explaining the effect of the recipient agent (supplier-supplier) in response to the influences of the sender agent (buyer-supplier relationship) or vice-versa.

2.7.1.3 The orientation of buyer-supplier and supplier-supplier relationships

According to Wu et al. (2010), there are three-dimensional relationships that exist between buyer and their suppliers, which is the “buyer-supplier-supplier triads.” They argue that inter-organizational relationships consist of multiple businesses that are best reflected in triads. Lazzarini et al. (2008) draws on the buyer-supplier and supplier-supplier dyads and is largely consistent with Choi et al. (2002) accounts. Choi et al., (2002) argue that the characterization of relationships (within suppliers and between buyers) are not as simple as presented. They propose three (3) topographies of supplier-supplier relationships (collaborate, competitive and coopetition) and various forms of buyer-supplier relationships. Choi et al. (2002) theorized “supplier-supplier” relationships and argued that upstream relationships between suppliers (the way suppliers interact with other suppliers) can influence the relationship between the buyer and their end users. In subsequent accounts, Wu and Choi (2005) proposed that three types of supplier-supplier archetypes; competition, cooperation, and co-opetition occur. They suggest that buyers should encourage competitive relationships when there are many suppliers and the cost of switching to another supplier is low. Collaborative relationships with suppliers should be encouraged when buyers desire to have suppliers share technology and capacity. Collaboration with suppliers should be encouraged when suppliers supply strategic goods. Choi and Wu elucidate that supplier-supplier dyads can be dimensioned along five relationship typologies based on their levels of co-opetition: conflict, contracts, competitiveness, collaboration and transaction. In their typology, they summarize the complexities of the cooperative and competitive relational dynamics between how suppliers interact amongst other suppliers. More approaches to understanding B2B relationships include existing studies on the buyer-supplier relationship by Ellram and Henddrick, (1995) in which they explored the relationship between buyers and suppliers.

The relationship between buyers and suppliers can be commonly viewed as a critical element for strategic and competitive advantage in supply chains (e.g. Gimenez and Ventura, 2003; Sahay et al., 2006; Choi and Messinger, 2015.) In some literature, the fundamental and smallest unit of a supply chain is made up of a buyer and a supplier,

called the dyad, while, in other literature, the smallest unit of a supply chain is made up of at least three members, called a triad. However, dyadic relationships have received much attention and are well established in the academic literature. For example, the benefits of collaborative dyadic relationships to buyers include reduced transactional cost; improved value, reduce the bullwhip effect; improved service levels for customers and high influence on suppliers (Dyer, 1997; Anderson et al.,1994; Helper, 1991; Srinivasan and Brush, 2006). The benefits of collaborative dyadic relationships to suppliers include better economies of scale; better access and expansion to market; shared resources and development cost; reputation /association to the buying firms that cannot be easily replaceable (Balakrishnan and Geunes 2004). Furthermore, Martin et al. (1995) showed that collaborative buyer-supplier relationships in Japanese automobile manufacturing supply chain were associated with improved production processes. Despite the continued interest in these dyadic relationships, scholars are now beginning to pay closer attention to triadic relationships as well. Choi and Wu (2009) have increasingly stressed the importance of supplier–supplier relationships.

There are many arguments and debates on the fundamental unit of supply chain firms (Dyer and Nobeoka, 2000; Sako, 2004). On the one hand, many consider the most significant hurdle to effective SCM is by focusing solely on the dyadic relationships only (Anderson et al.,1994; Gligor and Autry, 2012). On the other hand, many consider the most significant foundation to effective SCM is to focus on triadic relationships (Choi and Wu, 2009a). SCM literature restates an array of debates on how buyer-supplier and supplier-supplier relationships interact with one another and what the effects of such interactions are (Choi and Wu, 2005 & 2009).

It is worth mentioning that relations in a supply chain can also be considered in terms of vertically or horizontally integration. The vertical relations comprise of a group of inter-organizational relations between actors in different tiers. Christopher, 2005, p. 17 summaries that vertical integration is generally aimed at incorporating either upstream towards the initial supplier or downstream towards the end-customer. The horizontal relation, on the other hand, comprises of relations within the same tier (relationships between actual or potential competitors) (Cravens et al., 1996). In this thesis, the emphasis is placed on buyer-supplier and supplier-supplier relationships- the relationships with and between supply chain firms.

Dyadic relationships in supply chains can be grouped into two extreme categories: (1) transactional; and (2) collaborative relationship. These supposed distinctions between transactional and collaborative relationships have been well studied in SCM research.

This traditional form of relationship is often characterized by constructs such as distrust; time management; cost reduction; quality; lower prices, power, and control, quasi-co-operation, and adversarial relationships (Hingley 2001; Humphries and McComie, 2012). During this relationship, it is expected that profits earned from these cooperative transactional relationships can far outweigh profit by a single firm (Hingley 2001). Whilst, transactional relationships are focused more on the aforementioned constructs they often ignore the firm interactions or collaborative (close) relationship.

In a collaborative relationship, on the other hand, is characterized by information sharing, trust, trust, interactions. It focuses on the nature of relationships rather than the transactional exchanges and purchases volumes (Williamson, 2008). There are ample arguments these transactional and collaborative typologies tend to transcend the boundaries of SCM to economic, social and political literature (HBR, 2016). It is apparent that there are different possible approaches to relationships in the supply chain which appear to be the extremes of a continuum and mutually exclusive rather than mutually inclusive. In other words, the relationship approach may not necessary be oppose each other but possibly complement each other.

In case of motivation for supply chain relationships, the approach has traditionally been premised on supporting collaborative relationships. For example; Soosay et al., 2008 affirm that the cooperation and coordination typology of supply chain relationships is premised on the different degree of collaboration. Scholars (e.g., Lorentz, 2008; Zare Mehrjerdi, 2009) suggest that “integration” is another type of relationship which is premised on helping supply chain members or partners to achieve collaboration and aligning resources. Authors (e.g. Spence and Bourlakis, 2009; Bordonaba-Juste and Cambra-Fierro, 2009; Daugherty, 2011; Janvier-James and Didier, 2011; Vieira et al., 2009; Fearon et al., 2010) advocate that “partnership and alliances” are another form of supply chain relationships that emphasise the closeness and collaboration between supply chain members. As such the terms, “collaboration,” “alliance,” “relationships” and “partnerships” are used interchangeable and tend to overlap amongst different authors in SCM literature. Maloni & Benton (1997) points out that entire concept of collaborative relationship is characterized by constructs such as increased trust; interactions; risks and benefits; flexibility and proactive ways of managing new challenges.

Many studies have established the potential for collaborative relationships with suppliers as a source of competitive advantage (Nesheim, 2001; Das et al., 2006; Flynnet et al., 2010). Danese (2013) explains that buyer-supplier collaborations provide benefits such

as improved: efficiency; competitiveness; flexibility; performance and better service/schedule attainment. In collaborative relationships, the buying firm can perceive or refer to their suppliers as partners and sometimes as an extension of their business. Hunt et al., (2006) adds that many firms do not collaborate for the mere sake of collaboration but indeed for the perceived benefits. He argues that most firms engaged in relational exchanges when the perceived benefit derived far outweighs the opportunity cost. Establishing such strategic alliances pushes the need to share useful information with supply chain members and to manage relationships (Grönroos, 2000). The ideal effect can be a commitment from both parties involved to the relationship. However, in some case, the supplier is usually more willing to commit and more adaptable to the requirements of the buyer. In many cases, the supplier base may be consolidated and may look more attractive to the supplier, while the buyer benefits from a dedicated service from the supplier and possibly reduced cost (Narasimhan and Das, 2001; Guimaraes et al., 2002; Paulraj et al., 2006; Hartmann et al., 2012). Collaborative relationships by nature can develop higher levels of trust and cooperation which can improve their responsiveness and encourage the supplier to adjust its own strategic objective to match that of the buying firm (Chen et al., 2004; Govindan et al., 2010; Li et al., 2012). These commitments from the buyer or supplier may urge the signing of contracts (see section 2.3.5). Weck and Blomqvist (2008) also notes that informal relationships can be a source of competitiveness which can facilitate the sharing of information and ideas. Although, the benefits of collaborative relationships in supply chain can become sources of competitiveness, at the same time they can also degenerate into sources of operational complexities or inefficiency with dependence issues (Sivadasan et al., 2010).

2.7.1.4 Business to Business (B2B) interactions

Interaction is the means of talking, sharing and engaging with a community, business or even supply chains and each can contain particular social characteristics or features (Holmlund, 2004.). Interactions, in many cases, can reflect each society (or business) environment and system. In some businesses, such as restaurants and catering may place more emphasis on physical (face-to-face) interactions, while other businesses (clothing lines and public relations) may use lay emphasis on visual and nonvisual forms of interaction. Examples of nonphysical interactions used by businesses include telephone, emails, fax and social media platforms. Interactions with and between supply chains members can impact on several dimensions of a firm's competitiveness (Medlin, 2004). Developing collaborative relationships and interactions with suppliers can depend mainly on the resources and capabilities of the supply chain members.

Interactions within exchange members can build trust, strengthen relationships and enhance information sharing with and among supply chain members (Goffin et al., 2006). Notably, as some successful collaboration between buyer and supplier can be achieved through the exchange of useful information can be tactical or strategic (Knobloch and Solomon 2002).

In many cases where (environmental) uncertainty is high, high interactions can influence not only efficiency (Yan and Dooley, 2013) but competitiveness as well (Chen et al., 2004). For example, improved interactions between supply chain members can enhance inter-firm learning that is essential for competitive success (Paulraj et al., 2008). However, interactions between supply chain members are not always advantageous but may expose supply chain members (buyers or suppliers) to opportunism.

The level of interaction between two actors can be described as a continuum, ranging from the transactional (arms-length and sometimes adversarial relationships) to collaborative (strategic and cooperative relationships). The levels of interaction are said to increase on one end of the transactional continuum to the collaborative end. Some enablers of interaction that have been shown in previous studies include: benefit sharing, trust, shared interests, collaboration, clear expectations, openness, mutual help (support), leadership, information sharing and technology (Mentzer et al, 2001; Sahay, 2003; Bititci et al., 2004; Simatupang and Sridharan, 2005a & 2005b). In the section that follows next, a summary of the chapter is provided.

Tools involved in collaboration includes emails, telephone calls, conference calls, face to face meetings and visits. Emails are one of the most popular tools that can be used to obtain information. For example, information about the status of projects or events, approval and opinions of team members. However, there are challenges with using email, for example, it is important to make sure that the right persons are copied in-“cc” or blind copied-“bc” into the mail to prevent the spread of sensitive data; finding the latest thread of an email to reply to. The difference in time and location to which the email is sent, or response needed. In the section that follows, information surrounding relationship management is discussed.

2.7.2 Exchanges/ Transactions

2.7.2.1 Transactional exchange in transactional cost economics (TCE)

TCE or transactional cost reasoning was developed by Oliver E. Williamson in 1981. Williamson (1981) argued that the traditional arms-length transactions of markets provide little opportunity for firms to gain economic rents (or more specifically, a sustained competitive advantage). Dyer and Singh (1998) propose that a firm considering only the transaction such as TCE does but pay attention to the equally important long-term series of transactions required. They went further to argue that by creating partnerships (collaborative relationships) and making investments in resources with firms with similar resources can result in a reduced per-transactional cost. For example, a car firm might pressure price cuts on their suppliers in order to reduce variable costs; this is similar to the how a clothing manufacturer might reduce its variable costs by moving resources to fixed costs.

2.7.2.2 Contracting and contractual agreement

In a service or management contract arrangement, a firm can provide a service function on behalf of another firm. For example, suppose that a new small IT firm is created in a small state. The new firm may have local information about the market and employees in IT services but lack considerable capital and relative experience in managing large projects. Big IT players can be approached for partnership, and it agrees to provide support. In this way, the new firm utilizes the established network of the big player and it's known brand while big players take advantage of the new IT firm’s local knowledge and service to complement its own without much direct investment and employees learn the management of technologies efficiently. Collectively, this arrangement can bring the integration of resources, capabilities, and infrastructure to create benefits that neither party may achieve on its own.

Although Non-Disclosure Agreements (NDAs) can be signed prior to contract executions (relations between businesses that exchange or intend to in future), however, this does not guarantee that there won’t be breached, especially in countries with weak legal enforcement (MacNiel, 2000). These contracts may not reveal or make provision for operational failures (both unforeseen and excepted); and poor collaborations (Bakos, and Brynjyolfsson, 1993). As a result, the emphasis is on the ‘small print’ rather than developing and sustaining relationships. Added to this, a buyer/ supplier may have to overhaul its process and integrate a supplier’s technology and incur the cost in the hope of repeat custom. As the cost of changing a supplier (partner) is high, the buyer can

become captive to the supplier. Although, it could be argued that forging closer relationships with suppliers makes for improved competitive edge and effectiveness (Hingley, 2001). However, the reality, relationships, and its dynamics are difficult to predict especially in these times of uncertainties. Simchi-Levi et al., (2004) suggest that the Dell, Procter & Gamble are good examples of collaborative relationships with their suppliers. However, one can argue that these are examples of the largest firms in their industry. Scholars (e.g. Azad and Faraj, 2011) also caution that the switching cost of potentially replacing existing buyer or supplier should be considered carefully as assets and investments can be lost forever if they decide to dissolve the relationship.

2.7.3 Competition and competitive advantage

Schoenherr (2009) explains that globalization, customer expectation, and uncertainties in the market can help businesses and their supply chain to build a competitive advantage for themselves. Slack et al., (2010) suggest that supply chains can collaboratively build capabilities that allow for future competitive advantage. This has led to the notion that businesses no longer compete with other businesses, but rather competition has shifted to their supply chain (e.g., Ellram, 1995; Henkoff, 1994; Londe and Masters, 1994; Simchi-levi et al. (2007) Christopher, 2011; Frigero, 2005). However, the notion that we compete not as individual businesses but rather as a supply chain is an interesting and highly debatable topic. This argument remains highly debatable as authors like Lambert et al. (2005) argue that competition is not between supply chains but individual businesses. On the one hand, one school of thought argues that most businesses function within a supply chain rather than operating in isolation. As such, businesses compete collectively via their supply chain, not individually. Another school of thought argues that most businesses do not operate in one supply chain but several supply chains. As such, individual actors are not mutually exclusive to one supply chain but participate in multiple supply chains (Lambert et al., 2005). Irrespective of the different perspectives, the arguments offer opportunities to understand the management of supply chains and their relationships better.

Despite such debates, the idea of competing through one's supply chain has led to careful consideration of relationships with suppliers, partners, and stakeholders in a chain (Lambert 2008). In competitive markets, many firms get involved in supply chain relationships for diverse reasons such as increasing efficiency in their business operations; generating more revenue and increase their market share (Morgan and Hunt, 1994). As such, SCM is now becoming curial for many firms (small and large) which, until recent have operated primarily for larger firms and automobile industries.

2.7.3.1 Use of relationship management

The poor management of Business to Business (B2B) relationships in the supply chain has become evident in many SCM scandal gracing our new headlines. Scandals like controversy surrounding: the modern slavery allegations in fashion supply chain (BBC, 2017; Forbes, 2016), alleged underpayments of wages below UK's living wages of £7.20 to supply chain workers by fashion retailers (channel 4, 2017), poor relationships between food retailers and their supply chain, concerns around better regulation of pharmaceutical supply chain (Supply chain drive, 2016 & 2017). These scandals have highlighted the importance of RM. This increased awareness has emphasized the need for more collaborative rather than adversarial relationships with and between supply chain members (Hingley, 2001; 2005a; 2005b; 2005c; Hingley et al., 2012 & 2015). In response to this practice, businesses are exploring their relationships with and across supply chains as a source of competitive advantage. As a result, there is a shift from transactional (sometimes adversarial) relationships towards more collaborative relationships. The general belief is that good RM practice improves collaboration and information sharing within supply chain firms, and ultimately improves competitive edge (Emmett and Crocker, 2016). However, problems with and between supply chains remain.

For example, heavy criticism has been made by the public since the BBC Panorama documentary aired in early January 2015 regarding the growing power of Tesco's (UK's food and grocery retail giant) their impact on the economic, political and social environment of their supply chain (Lindgreen and Hingley, 2003; BBC, 2017). Many food suppliers are beginning to regard the retailer as a threat rather than a benefit to their economic and social well-being. The typical disputes include: 1) Delayed payments 2) Their presence creates future competition and reducing the economic strength of smaller businesses. 3) Making retrospective changes to terms of supply (contract) 4) tying suppliers down to certain third-party service providers 5) Dominating many markets 6) promoting unethical business practices such as price fixing, wars, and competition (Hingley, 2005). Consequently, the UK government established the Grocery Supply Code of Practice (GSCOP), which has become the initial code of conduct for retail business (supply chains) practices in a quest to address supply chains in UK. Many argue that by focusing on long-term strategies instead of short-term profits, they can develop more collaborative relationships which are essential for survival in markets. On the other hand, many argue that issues with supply chain relationships or unfair supply chain practice by large firms are not recent or familiar to Tesco only but have long been a source of concern. However, such criticisms have forced Tesco to develop strategies

to remain competitive and, at the same time, to adapt to the customer's needs and the environment. For example, in 2015, Tesco launched its first online community of suppliers (Tesco's Supplier Network) to serve as a platform to connect where their supply chain members can interact and collaborate (TSN, 2015).

Many authors (e.g. Nesheim, 2001; Das et al., 2006; Talluari et al., 2006; Narasimhan and Talluri, 2009; Flynn et al., 2010) have noted that collaborative relationships with suppliers can be a source of competitive advantage. Collaboration, as defined by Wilding and Humphries (2006:67), is "working together to bring resources into a required relationship to achieve effective operations in harmony with the strategies and objectives of the parties involved thus resulting in mutual benefit". Firms of supply chains can come together to deliver a project, product or contract collectively contributing something that neither parties can achieve individually. Contributions could be in forms of intellectual capital, time, money, capabilities or infrastructure (Humphries and McComie, 2010a & 2010b). Collaboration in supply chains generally advocates that firms of supply chains form cooperative and long-term focus relationships between buyers and fewer suppliers. The rationale is that collaboration might enable firms of supply chains to compete better, improve information sharing, improve revenue, increase flexibility and better respond to the ever-changing market environment. Thus, it is becoming excepted for businesses to focus much of their attention on managing their supply chain relationship well.

On the other hand, although collaborative relationship can be beneficial, it can also have potential risks. Risks of being vulnerable to opportunist, Complancy, increased dependency, issues arising from distrust, poor financial control, weak interactions, firefighting and quality issues. Given these risks, it is not surprising that many firms shy away from collaborative relationships and adversarial relationships continue to grace our headlines with widespread practices like power abuse, lack of transparency and reluctance to adopt change exist (Kemppainen and Vepsalainen, 2003). Despite these setbacks, it is worth mentioning that collaborative relationships with and between members of a supply chain can collectively open up opportunities and benefits that may not be available to the individual firm.

2.7.3.2 Resources and capability

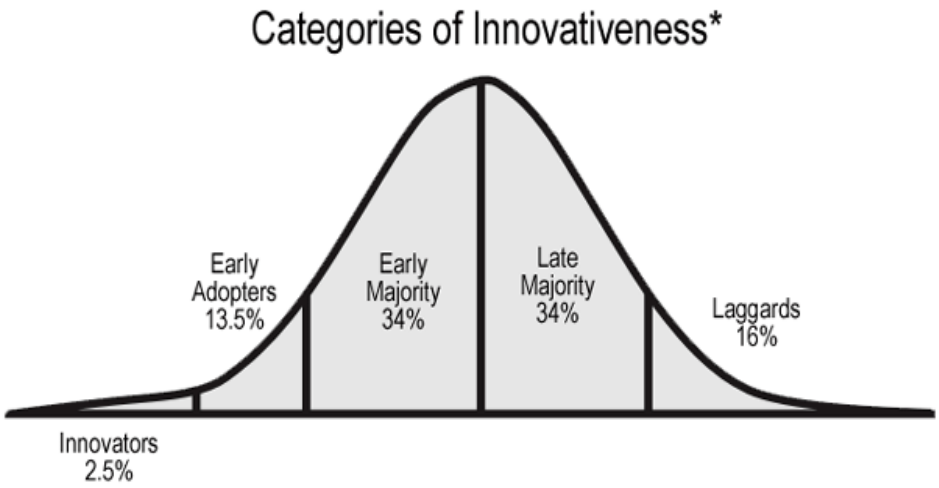
Alfalla-Luque et, 2013 proposed a framework of supply chain integration that comprised of three constructs 1). information integration, 2). coordination and resource sharing, 3). organisational relationship linkages. Scholars (i.e. Teller et al., 2011: Kotzab et al., 2011) suggest that the presence of specific SCM-related resources depends on the

implementation of inter-organisational business processes of supply chain members. Despite this importance, there is still a lack of clarity regarding which resources and capabilities in individual firms can (directly or indirectly) utilize their integration of business processes with suppliers and customers, create value and improve the chain. Penrose (2009) refers to SCM related resources as financial, human, physical, and organisational assets that firms use to develop their products. It is worth mentioning that the ability of the firm to manage the resources and capabilities across the supply chain firms that provide a competitive advantage. These kinds of resources and capabilities are usually unique and not easily copied (Graant, 1991) Resources in the study include any transactional exchange between parties include work, money, staff, supplies and skilled technical assistance.

2.7.3.3 Firm's innovativeness

Firm innovativeness is defined by Kunz et al., (2011:817) as the "*capability of a firm to be open to new ideas and work on new solutions*." Tuominen et al., 2004 argued that a firm's innovativeness influences the firm's ability to use new technologies. The changing demands have resulted in increased innovations that can constrain or enable firms' survival. In today's uncertain business environment, many firms seize the opportunity to use innovative technology and develop innovative products to adapt to the underlying changes in demand. Wamba and Carter (2013) suggest that firm innovativeness can influence the firm's ability to compete. Similarly, many studies (e.g., Boso et al., 2013) have revealed that the firm's innovativeness is directly associated with the firm's performance. It is argued that the firm innovativeness can be examined by drawing on contingency theory (Boso et al., 2013). Boso and colleagues argue that the explanatory power of contingency theory lies in the understanding that a firm's actions are affected by forces in the external environment. In general, there are five classifications of innovativeness; innovators: early adopters: early majority: late majority and resisters (laggard) (see figure 2.4).

Figure 2.5: Categories of innovativeness



Source: Rogers 2003

Resisters are described by Matsuura (1991 p 490) as "those who oppose any innovations and who may continue to insist on traditional ways." Resistance is often viewed in many strategy and psychology literature as a major obstacle to any change including technological innovativeness (Ellen et al, 1991: Dent and Goldberg, 1999: Dent and Goldberg, 1999: Song and Montoya-Weiss 2001: Nov and Ye, 2008), while other critics view resistance as a necessary scrutiny and constructive as well (Waddell and Sohal, 1998). There are different forms of resistance to technological innovativeness. Resistance can be cultural, political, social or traditional. For example, different organizational cultures can reflect different value systems. Values as described by Matsura (1991 pp64) as "the standards by which concepts and behaviours are judged." A number of businesses are motivated by monetary incentives, while other members may be motivated by its social responsibility or technological innovativeness (Hollenstein, 1996: Deshpandé et al., 1993: Christensen and Bower, 1996: Lantos, 2001). This inconsistency may be due to the differences in attitudes towards wealth and achievement across the industry types and firms (Matsura, 1991). In the same manner, some industries show strong resistance to new ideas and innovations, while others accept them readily.

2.7.3.4 Information sharing and asymmetry

Lambert (2008) claims that the primary source of competitive advantage for business is their supply chain, especially where the quality of supplier input offers tangible value to the end user. Mentzer et al. (2001) highlight information sharing as being integral to Supply Chain Management (SCM) and indeed the SCM philosophy. Langley and

Holcomb (1992) are of the view that information sharing is an important requirement for SCM philosophy. They argue that participating organizations in the supply chains could utilize such information flows (or exchanges) and relationships to gain competitive advantage (just like any other single organization would) (Lambert, 2008). This means that in some cases, suppliers need to be persuaded that by exchanging valuable information, they stand to gain not lose. On the other hand, Premkumar and Roberts (1999) point out that information is a competitive advantage, and increasing the exchange of information could leave small businesses vulnerable to the whims of their larger partners.

Firms of supply chains can come together to deliver a project, product or contract collectively contributing something that neither parties can achieve individually. Contributions could be in forms of intellectual capital, time, money, capabilities or infrastructure (Humphries and McComie, 2010a & 2010b). Information sharing in supply chains generally advocates that firms of supply chains form cooperative and long-term focus relationships between buyers and fewer suppliers. The rationale is that information sharing might enable firms of supply chains to compete better, improve information sharing, improve revenue, increase flexibility and better respond to the ever-changing market environment (Wilson 2010). Thus, it is becoming excepted for businesses to focus much of their attention on managing their supply chain relationship well.

On the other hand, although collaborative relationship can be beneficial, it can also have potential risks. Risks of being vulnerable to opportunist, Compliance, increased dependency, issues arising from distrust, poor financial control, weak interactions, firefighting and quality issues. Given these risks, it is not surprising that many firms shy away from collaborative relationships and adversarial relationships continue to grace our headlines with widespread practices like power abuse, lack of transparency and reluctance to adopt change exist (Kemppainen and Vepsalainen, 2003). Despite these setbacks, it is worth mentioning that information sharing with and between members of a supply chain can collectively open up opportunities and benefits that may not be available to the individual firm.

2.7.4 Social media use

2.7.4.1 Internet infrastructure

The high cost of internet access has hindered the growth of many businesses. For example, FT (2014) provides an example of a film marker had to bring hard physical

copies of his films to London on hard drives to upload them. However, things have improved and can be uploaded from Nigeria but at a price which not all SMEs are able to afford. For example, the data bundle is available from N70,000 (about $430) a month for a 100GB (FT, 2014) The use of social media in Nigeria has been on the backbone of mobile phones, the internet share via mobile phones is 76% see table 2.7.

Table 2.7: Share of internet traffic via devices

The share of Internet traffic via Devices	Nigeria	UK
Laptops and desktops	20% year-on-year: -5%	58% year-on-year: -12%
Mobile phones	**76%**	27% year-on-year: +18%
Tablets	5% year-on-year: +28%	15% year-on-year: +31%
Other devices like game console	0% year-on-year growth	0.4% year-on-year with +32% increase

Source: We are Social research & analysis, 2015

Nigeria' GDP was $3, 203.3 (see table 2.8) with broadband internet penetration – currently less than 10 per cent (FT, 2014) and internet penetration at 38% in 2014 and 49% in 2016 (see table 1.7. Many are calling for the government to invest $25bn in telecoms infrastructure over the next 5 - 10 years for improvements to be made. The opportunity for growth continues to attract companies like MTN (the largest mobile operator in Nigeria), Etisalat Nigeria (mobile operator in Nigeria) Millicom, (Swedish digital services provider); Africa Internet (German venture capital firm). The next step has been the rollout of 3G and the introduction of 4G services, bringing broadband infrastructure to remote areas; as well as negotiating and licensing fibre network construction.

Table 2.8 Relevant data for technology infrastructure and country ratios

Digital Attributes	Nigeria	UK
Total Population in 2015	183.5 Million	64.1 Million
Active Internet Usage in 2015	70.3	57.3 Million
Internet Penetration	38%	89%
Active Mobile Internet users	97.2 Million	36.9 Million
Mobile Internet Penetration	53%	58%
Total Mobile Subscription	138 Million	74.8 Million
Mobile Subscription Penetration	75%	117%
Active Social Media Usage	13.6 Million	38 Million
Social Media Penetration	7%	59%
Social Media Use via mobile connection	12.4 Million	32.0 Million
Social Media Use via mobile connection penetration	7%	50%
*Real Gross Domestic Product (GDP) in 2014 per capita	$3, 203.3	$46, 332

Source: We are Social research & analysis, 2015: World Bank, 2015: InternetliveStats, 2015: InternetWorldStats, 2015: Nigeria Communications Commission (NCC, 2015)

2.7.4.2 Usefulness of social media

Appropriate technology is described by Matsura, (1991 p 490) as the “best technology suitable to a particular location at a given time in a particular environment. The usefulness of technology is based on several environmental conditions such as the cost of technology, supporting infrastructure, social needs and technological impact. Technology transfer (or use) and collaboration among businesses and their supply chain are becoming commonplace, and interdependence amongst members are on the increase (Khazanchi, 2005). The reasons behind this may include preference of a particular technology by a member, high cost involved in research and development and the production of high technology product (Matsura, 1991; Baptista and Galliers, 2012).

Many scholars argue that an appropriate technological tool can be selected according to the target audience/market, cost, media available and coverage area (Matsuura, 1991). For many businesses, the technological cost is compared to the expected

benefits of its use. Suppose a fashion firm plans to use SM to maintain and sustain established relationships with members of their chain. The firm may explore the available technological tools/media in the country. Additionally, the cost, their advantages, disadvantages, expected benefits and challenges from each of the available tools would be carefully considered. For example, telephones have broad coverage but can be too expensive, while face to face contact may have less coverage but can target a particular audience and might have better long-term effects.

Without question, the use of technology by businesses are not always beneficial. It does not necessarily result in improving the social and economic conditions. Yet, many scholars advocate the use of technology by smaller businesses as the single means of its development (Kaplinsky, 1990). However, critics of this view argue that not all technologies are advantageous to all businesses (Kaplinsky, 1990: Matsura, 1991). Matsura argues that it is important to carefully select the appropriate technology suitable to its needs and environment. Despite these criticisms, a number of scholars still advocate that technology transfer and use can be the only feasible alternative to business success and industry development (Matsura, 1991; Baptista and Galliers, 2012).

2.7.4.3 Overlapping and evolving use of social media

There is sometimes a blurred line between personal and business use of SM. An example is the recent challenges faced by a number of global investment banks such as UBS whose employees use Bloomberg Instant Messaging Chats. Despite the insistence by some of the businesses that the Instant Messaging tool be used strictly for business purpose and not social interactions, to mitigate against regulatory breaches and unprofessional conducts, employees many times are not able to easily distinguish between the different categorization when using the tool (Forbes 2013; Bloomberg 2013). Also, HBR (2010) suggest that the perceived function of SM varies between businesses. For example, larger businesses are more likely to view SM as a tool that helps to monitor company's perception, identify positive and negative comments. On the other hand, smaller businesses view SM more as a marketing tool to increase awareness, web traffic and prompt new businesses (HBR, 2010: Allen, 2013).

2.7.4.4 Management of information technology

IT is a key driving factor influencing improving competitiveness; enhanced productivity; more efficiency, better integration of processes better supply chain effectiveness,

efficiency and ultimately improve SCM (Banker et al. 1990; Wu and Angelis, 2007; Bayraktar et al. 2009). Burke et al. (2010) also add that social media can also facilitate better interactions, B2B collaboration and sustain close working relationship systems (Culnan et al., 2010). Integrating IT (social media) with business processes are deemed more effective: reducing the Bullwhip effect, removing bottlenecks, improving performance and improving responsiveness to customer demand (Simchi-Levi et al., 2004; Wu et al. 2013). For example, while many technologies in SCM focus on supporting firms to rely heavily on forecasting demand which sometimes leaving suppliers feeling removed from the marketplace (Croxton et al., 2002). Social media can help to lower the bullwhip effect by providing a platform where suppliers and buyers can foster speedy interactions, improved information sharing and collaboration.

These advantageous effects have attracted many businesses including SMEs, to adopt numerous technology (IT) to enhance their competitive advantage, which includes enterprise resource planning (ERP), radio frequency identification (RFID) and electronic data interchange (EDI) are predominately focused on planning, exchanges, inventory creation and forecasting (Tang, 2006; Lin 2009; Kachru 2009; Slack et al., 2010). Slack et al., (2010) argue such traditional methods of forecasting tools come with inaccuracies and instabilities that can no longer cater for today's supply chain. Simchi-Levi et al. (2003) also add that these inaccuracies have resulted in variation in demand and supply. They propose that the supply chain would have to be more demand-driven and adapt to demands as they occur. In other words, instead of focusing on the planning and efficiency as traditional supply chains do, today's supply chain should focus on responsiveness and relationships that allow for flexibility. As many forecasting supply chain tools tend to be problematic. This is because sophisticated analytic tools cannot accurately predict customer demand to match supply (Simchi-Levi et al., 2003). A relationship (networking) tools that help to share information and maintain relationships is needed needful.

Despite these attributes and needs, the adoption of technology in supply chains is not usually universally wide accepted (Slack et al., 2010). As with e-commerce, e-commerce emerged as an essential technology that would shape today's business environment (Wagner et al., 2003; Al-qirim, 2008; Baghdadi, 2013). Many argued that its use could prevent the need for face to face interactions which is essential in building trust in collaborative relationships (Liu et al., 2009). Whilst others argue that its use would entirely change business and the physical store would be a thing of the past. Nevertheless, it uses has enabled SMEs to improve online visibility, market their goods/services online, allows transaction and payment systems online, and receive

exposure to foreign markets and foreign competitors (Piscitello and Sgobbi 2004; Ngai et al., 2015). In turn, social media can be used as relational tools, and they enable suppliers and buyers to improve their interaction, information sharing, get fast responses and sustain pre-existing relationships. As such, its usage can facilitate the sending and receiving of structured (or unstructured) information, and it can also help to improve the connection (bond) with SMEs and their supply chains electronically and online (Tang et al., 2012). For example, millions of users have connected with others on Facebook, Twitter and LinkedIn, and some have developed a collaborative community based on shared interests (Weber, 2010). According to Hsu and Lin (2008), community identification refers to the perception of belonging to a community, in this case, a social media community. Many authors (e.g. Husin and Hanisch, 2011; Gallaugher and Ransbotham, 2010; Sandsmark, 2011) have focused on social media use from a larger business perspective. However, a few scholars (Cragg et al., 2011; Shang et al., 2011) that have studied on social media from an SME standpoint.

Authors (e.g.Hanna et al., 2011: Tang et al., 2012) warn that its use can come with its set of challenges, challenges that may evolve as the technology itself evolves. Challenges such as tackling increased competition have made agility and adaptability important characteristics for today's businesses (Collins et al., 2010). Collins et al. (2010) suggest that an agile supply chain should depend on IT to explore developing trends in the marketplace, and to adjust to market conditions. The use of IT can complement supply chain relationships (Paulraj et al., 2008) by maintaining and sustaining already established relationships. Characteristics such as real-time information sharing, speediness, frequent interactions are achieved using social media (Gallaugher and Ransbotham, 2011; Garnett, Steve, 2010; Kinra, 2012). The application of IT in SCM is thus a tool that can foster, maintain and sustain relationships which can impact on other members of the chain (Bennett et al.,2010; Antoniolli, 2016).

Social media applications like Facebook and Twitter have been adopted faster and at a record speed than other media technologies such as radio, television. For example, commercial TV took thirteen (13) years to reach 50 million users, the internet took three (3) years to sign up 50 million subscribers, while Facebook took one (1) year to hit 50 million users, and Twitter took nine months to reach 50 million users (McKinsey and company, 2012). As widely accepted as SM is with over one and half billion using the technology, it is clear that many researchers and authors are just beginning to understand the value of this technology in business and its impact on the business relationship. Although, UK like other developed countries where a high percentage of population and businesses use SM there is still a good percentage of the population and

businesses in under-developed countries like Nigeria left to adopt the technology. This suggests that there are still opportunities for the adoption of SM and the understanding of how social media is used in supply chain relationships. The existing control and policies regarding social use may be regarded as favourable or unfavourable. However, the management may alter these policies or control of social use to best fit their goals. Worth mentioning is that businesses operating in particular industries can have some amount of control or regulation of various types that govern the way business is carried out. There is also a risk of security which many firms both big are small are vulnerable as well as there are likely to be sensitive information shared on these channels. As such, many firms seek the right person or team to manage the information shared and obtain an audit trail.

The fast pace and emergence of social technology particularly social media have attracted lots of scholars to its use in businesses. As a result, research in this area is growing and providing us with a better understanding of technological advancements and also the individual, organizational and societal implications. The increased interest has sparked ongoing debates and concerns- Does social media make a valid contribution to the field? Does the public (society) have any influence on the decision to use social media? Are humans threatened by the advancement of IT? Does social shape technology? Will technology change the world (society)? Whilst there appears to be a consensus that technology is not always beneficial but rather impacts on the daily individual and organizational well-being. Author (e.g. Kaplan and Haenlien, 2010) posit its use as purely advantageous and transformational. However, this deterministic and exclusive focus on technology, particularly on social media, has received guarded reservations (Winner 1993; Grant et al. 2006). Grant et al. (2006) is particularly vocal in opposing technology in itself as the key, almost exclusive driver as they are also non-technological factors involved as well. In addition, Winner argues that if technological effects are as complex in practice, then technology determinisms (TD) is at best too simple in explaining technological changes. Despite these critiques, TD is largely supported and remains popular in researching organizational studies as scholars strive to gain a better understanding of technology use and its impact on an individual, organizational and wider societal level. In line with the technological determination that suggests a positive association with technology adoption (use) and its perceived impact (outcomes), the use of social media is likely to improve relationships and information sharing within and across SMEs and their supply chains.

2.7.5 Business environment

There are business environments that consist of several factors that can possibly present opportunities and/or threats to businesses. Many of these themes may be beyond the control of the firm and may sometimes vary due to the economic, legal, political, technological and socio-cultural features of the market/industry (Arias-Baez, and Carrillo-Ramos, 2012). This review is consistent with environmental factors in strategy literature (Porter, 1980;1985a; 1985b; 1985c; 2008 & 2011 Porter and Millar, 1985). These factors could include the degree of competitiveness, information sharing and hostility of the market (Barson et al. 2000). Over the years, strategy scholars (e.g., Porter 2008;) have exerted much effort into examining how each factor and the combination of factors influence firm's strategies and their performance. Prior studies have also revealed that the environments in which a firm operates play a central role in determining a firm's approach and strategy (Covin and Slevin 1991: Story et al., 2015. Other marketing literature have often classified the firm environment into three: competition, customer, and technology (see: Jaworski and Kohli 1993; Joshi and Campbell 2003). Many authors (e.g. Ford and Slocum, 1977: Buvik and Grønhaug, 2000) have identified technology to be key determinants of environmental uncertainty.

2.7.5.1 SMEs orientation in buyer-supplier and suppler-supplier Relationships

SMEs have been well recognized for their ability to drive collaborative (positive) relationships with their customers and their supply chains (Jones, 2003; Ardjouman, 2014). These relationships with their supply chains can directly or indirectly influence the SMEs ability to compete better. Thus, the importance of maintaining and sustaining existing business relationships cannot be understated for these reasons. 1). Positive supply chain relationships improve interactions and information sharing. 2). Positive supply chain relationships foster collaborations. 3). Positive supply chain relationships promote repeat (and sustainable) transactions. 4). Positive supply chain relationships improve their competitive edge (Ardjouman, 2014).

2.7.5.2 SMEs/Firm size

According to BIS, 2016, fewer than half of all UK SME start-up remain in business after the first five years. This is probably due to SMEs associations with limited resources such as skilled staff, no access to financial credit, limited financial reserve, technical support and Management expertise especial when compared to their larger counterparts (Paik, 2011: FT, 2017b). In view of these high failure rates and increase competition

SMEs face from local, international and online competitors, improving their competitive edge for SMEs is of crucial importance particularly SMEs that do not have access to unlimited resources. Relationship and relationship management is one option for SMEs with limited funds that want to improve their competitive advantage.

There are a number of extant studies that suggest company size can impact the firm's competitive advantage and, ultimately, the firm's performance (Hofer, 1975; Barney, 1986& 1991& 2002 & 2014: Porter, 1980; Obaidat, 1987; Dess and Davis, 1984; Fiegenbaum et al, 1987; Park, and Mathur, 1988: Smith et al 1989; Miller and Dess, 1993; Chen & Hambrick, 1995; Forbes, 2017; Wan, 2003: Alvarez & Barney, 2001; Wincent, 2005; Redondo & Fierro, 2007; Wan and Bullard, 2008). Chen and Hambrick (1995) argued that smaller firms have the propensity to tackle and respond to challenges around competition faster. They added that small firms exhibit behaviours like information hoarding and are often unassuming. SMEs have the tendency to tackle and respond to challenges around competition slower than their larger counterparts with more visible effects. Alvarez and Barney (2001) noted that smaller firms found it difficult to act as the driver for building and maintaining (B2B) relationships with larger firms as they had limited resources, especially when compared to their larger counterpart. As a result, most larger firms are better equipped to take the strategic lead in successfully building their networks and B2B relationships with SMEs. Wincent (2005) suggested that SMEs in B2B relationships with larger firms demonstrated higher relationship width and depth compared with other SMEs. Redondo and Fierro (2007) found that smaller firms appreciated trust, interaction and collaboration more than larger firms. He also added that despite SMEs limited resource, SMEs are still prone to building and maintaining relationships with their suppliers.

The importance of improved B2B relationships and effective relationship management in supply chains include better collaboration and information sharing. Thus, improving their competitive advantage through better relationship management practices like information sharing and collaboration is needful to SMEs.

2.7.5.3 Difference in market

There have been few studies on the significant differences in SCM practices between SMEs and larger firms (Bhagwat & Sharma, 2007; Paik et al., 2009; Quayle, 2003; Ramsey, 2001; Goddard et al., 2005; Sharma et al., 2008; Vaaland & Heide, 2007; Wagner et al., 2003; Arenda and Wisner, 2005). Ramsey (2001) noted that small firms tend to endure limited internal resources such as advanced information systems and

skilled managers in niche areas. He added that small businesses generally exhibit less purchasing power and subsequently have little control over their supply chain members. Goddard et al., 2005 reported that larger firms are more likely to take advantage of economies of scale to bargain with suppliers for better value at reduced prices to cope with increased competition.

Wagner et al. (2003) supported this view and added that small business seems to have less influence over their external environment as well. Paik et al. (2009) suggested that SMEs have the tendency to focus on short-term opportunities (and/or challenges) over long-term planning and forecasting than larger firms. Sharma et al. (2008) reported that SMEs are less likely to adopt sophisticated information systems due to cost constraints. Bhagwat and Sharma (2007) found that many larger firms may have better means to compete than SMEs as resources for advancing their information systems in SMEs is limited when compared to larger firms. They implied that larger firms have adequate information technology infrastructure and resource than SMEs, as such information in larger firms are managed in systematically and organized manner than SMEs. In addition, studies (e.g. Chen and Hambrick, 1995; Alvarez & Barney, 2001; Wincent, 2005; Redondo and Fierro, 2007; Boumediene et al. 2009) examined that the effects of factors such as trust, cooperation, commitment communication on buyer-supplier relationships. Despite these differences in SCM practices and firm size, Rogers (2003) found that the greater the firm size, the greater the complexity, the less focused and less flexible the firm tend to be.

.

The competitive nature of today's business environment implies that businesses may face a formidable challenge of improving their supply chain relationships to compete better. The dynamism of today's competitive environment has become a source challenge that confronts many businesses particularly SMEs. Dynamism issues include technological advances; fast pace of changes going on in the environment and more product and service variety (Mitchell et al., 2011; Zhang et al., 2012; Azadegan et al., 2013).

In a typical supply chain, multiple firms can join their resources together to carry out specific business activities. Each member may bring a particular value (market access, resource, specialized skill or industry information) to a chain. Sometimes new supply chains are formed in which members can share the risk associated with its operation. In some cases, the relationship can be collaborative or adversarial. In supply chain relations, members can pool technologies, innovation, information, capital and so on (Wymer and Regan, 2005; Lawrence, 2002 & 2008). For many small businesses, a

supply chain can be an effective method to enter a market or participate in large projects (see section). Without the network and capacity of larger firms, these small businesses may not have access to large markets.

SMEs exist in supply chains of many industries as buying or selling companies. Many SMEs relationships with more prominent businesses within their supply chain can be challenging. Many SMEs, view relationships with larger firms as opportunities for developing new capability, new systems and better able to compete. Whilst, SMEs make up a significant portion of private sector businesses; in most cases, the economic power and control are concentrated in the hands of larger businesses (Hingley, 2001). As such, a number of SMEs find relationships within these chains challenging. A business or social justification for large businesses to support the development of smaller businesses is because small businesses are a significant source of innovation, job and revenue creation.

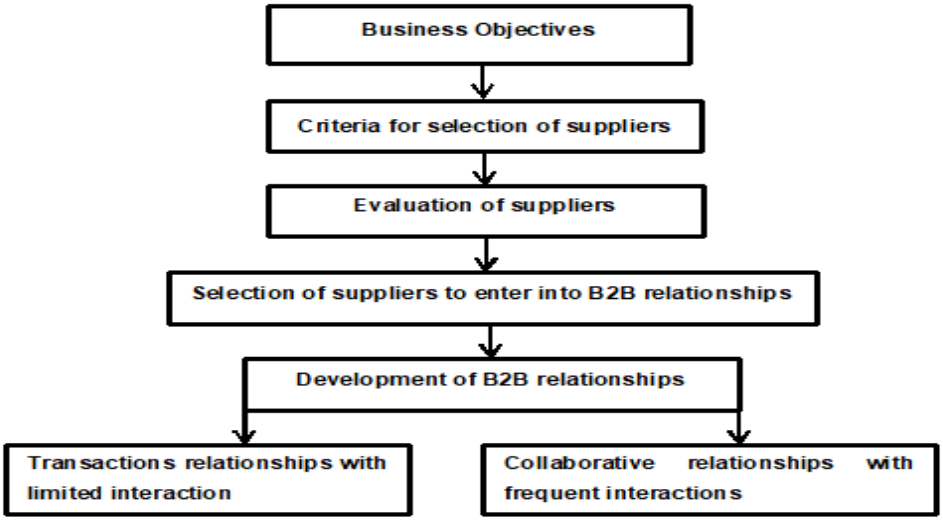
There are some considerations to explore when it comes to SMEs. They include; the market in which the firm operates particularly as the market may vary in the levels of competition, a period of time, geographical location and use of technology (Arenda and Wisner, 2005; Cheung and Rowlinson, 2011). Cheung and Rowlinson (2007) argue that the way in which information is diffused across a market may vary and certain businesses. It has been further argued that larger businesses, in general, have better information advantage given that they depend in part, on the transfer of information down the chain and capabilities of technology used (Cheung and Rowlinson, 2007).

The lack of attention to SMEs in SCM may be attributed to the perception that the management of supply chains is preserved for the larger and more well-known firms. More often than not, generally, management (and strategy) in SMEs is thought to be mainly business owner-centric and tends to evolve predominately around the intent of the owner (Littunen, 2000). According to Zanon et al., 2013, it can be said that many businesses including SMEs tend to build their competitive advantage by balancing and complementing activities to suit both the industry and market needs. It may explain the reasoning behind the difference in activities across SMEs.

The ability to share information is information is more prominent in some industries and supply chains than others. The sharing culture is critical, one that not only rewards the individual or firms within their supply chain for having information but sharing as well. On the other hand, a lot of the power or advantage that many businesses -particularly smaller ones, perceive that they have, is the information that they possess. To share

such information may render them (SMEs) vulnerable and at risk of opportunists. Some firms that innovative may have an information sharing culture and can be more externally oriented, while, in some firms that is not necessarily the case. Also, each industry or/and business may have some degree of regulation, information shared may be sensitive and confidential. Managing information that firms may want to share on social media or other media is crucial. Ability to share information Sharing culture, rewards information sharing, learning culture. The decision to enter a supply chain relationship can be based on a systematic decision process as shown in Fig 2.6

Figure 2.6: Supply chain selection decision flow



Source: Author

2.8 Themes outline

The emerging factors were examined in great details in earlier sections (2.2.4, 2.3.4 &. 2.4.4) in this chapter. It helps to draw a trajectory of scholarly literature and contributions to the factors/ themes that influence the use of social media in supply chains. Altogether, there are five central themes and fifteen sub-themes which set the tone for further discussions and analysis in the other chapters of this thesis. A brief synopsis of the themes is shown in **table 2.9**.

Table 2.9 Initial themes undergirding the use of social media in supply chains

Themes	Subthemes	Key Authors	Research Methods	Key Findings
1) Supply Chain Relationship	a.Trust, Dependence, Power and Control	Wu et al. (2004)	Empirical study	The findings show that as investments in supply chain increases, power and dependence increases as well. They recommend that trust is critical in maintaining commitment and sustained collaboration
	b. Triadic relationships	Choi and Wu (2009a)	Theoretical Study	They suggest that the smallest basis unit to investigate supply chain as a network is a triad. A triad consists of three nodes and links that connect them together.
	c. Interaction (formal and interpersonal) and communication	Gligor and Autry (2012)	Empirical study	The findings show that closer interpersonal relationships can facilitate better business interactions and communications through four emergent process themes: Message Conveyance; Message Integrity; Environmental Interaction and Communication performance.
2. Exchanges	a. Transactional exchange	Williamson (1979)	Theoretical Study	He suggests that collaboration (integration) requires internal organizational power. He also adds that firms use internalization because of economies of information exchange.
	b. Information Sharing and Overload	Cheng et al. (2004)	Empirical study	The findings show that better information sharing among the members in a decentralized supply chain will lead to Pareto improvement in the performance of the entire chain. Supply chain members can benefit from reduced inventory levels and cost savings from collaborating.
	c. Contracting (Elusive and Inclusive)	Williamson (1988)	Empirical study	The study used transactional exchange as the basic unit of analysis. The findings show that transactions differed with respect to frequency, asset specificity and uncertainty.
3. Competitive Advantage	a.Use of Relationship Management	Hingley (2001)	Empirical Study	The findings show that retailer-supplier relationships in the UK fresh produce (fruit and vegetable) market is concerned with issues of relationship formality, exclusivity, power-dependency, the relevance of organizational size, partnered growth potential and risk.
	b.Use of Resources and Capabilities	Koops et al. (2002)	Empirical Study	The findings show that resources and capabilities have an effect on the products and processes in the food industry. They add that supplier collaboration was shown to have no moderating effects.
	c.Management of IT (innovativeness) and control	Lazzarini et al. (2008)	Empirical Study	The findings show that vertical ties seem to inhibit horizontal ties when technological uncertainty is low. They add that when technological uncertainty is high, vertical and horizontal ties do not seem to have any meaningful form of interaction.

The initial themes undergirding the use of social media in supply chains (continued)

Themes	Subthemes		Key Authors	Research Methods	Key Findings
4. Information Technology Use	a.	Technological Infrastructure (connectivity)	Chua et al. (2009 & 2012)	Empirical Study	The findings show that technological infrastructure (connectivity design) is a critical artifact of social networking application.
	b.	Usefulness of social media	Khazanchi (2005	Empirical Study	The findings show that IT appropriateness is a useful mechanism for understanding organization-technology fit which impacts on organizational performance (competitive advantage).
	c.	Overlapping and Evolving use of SM	Petkovska-Mircevska and Markova (2013	Conceptual Study	The findings show that Web 2.0 applications and functions are fast evolving probably due to the increased level of user engagement.
5. Environment	a.	Competition and Collaboration	Berry et al. (2009)	Theoretical study	The authors highlight that little attention has been paid to information and communication technologies and its impact on control system design and capability. They conclude that more emphasis should be placed on research which attends to the relationship of control practices and theory which requires more collaborative research processes.
	b.	Market Structures	Poole et al. (1998)	Empirical Study	The findings show that supplier (fresh product suppliers) can be grouped according to their market structures and orientation. The marketing factors and negotiated price are usually determinants of terms of transaction and contracts.
	c.	Business Size/ supplier/buyer Power	Hingley (2001):	Empirical Study	The findings show that many retailers prefer to focus on larger supplier firms, with which to develop closer business relationship due to the process of rationalization.

2.9 Chapter summary

Social media has had and continues to have a substantial influence on the way business-to-customer (B2C) relationships are managed. The beneficial impact of social media on B2C means that firms are increasingly exploiting social media to build and strengthen relationships. Increased competition has made collaborative B2B relationships and information sharing important features of supply chains. Many firms

use social media for sales, advertising, PR, recruitment, customer service, to gather information on customers trends, planning and adjusting to the fast pace and ever-changing markets. The application of social media to B2B relationships in supply chains can ensure collaborations and information sharing with and between supply chains. RM requires an interactive and technological enabled tool /platform for speedy interactions, sharing real-time information and for connecting buyers and suppliers (with existing relationships) online. Through social media, firms can facilitate buyer-supplier and supplier-supplier interactions, promote B2B collaborations, sharing of useful information. The use of social media, in theory, complements relationships and RM. Thus, the use of social media in supply chains as a technological tool that can build and maintain existing relationships requires further attention.

Chapter 3 : RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents and justifies the philosophical foundation and methodological choices made in carrying out the current study. The chapter is organized into the following sections: following this introductory section; section 3.2 discusses the choice of theories; section 3.3 discusses the philosophical basis guiding the study; section 3.4 explains the research approach; section 3.5 details the research nature; section 3.6 examines the research context; section 3.7 explains the research strategy; section 3.8 explains the ethical consideration; section 3.9 details the method of analysis; section 3.10 examines the limitation of qualitative research; and finally, 3.11 outlines the summary of the chapter.

3.2 The theory of choice

Extant theories on social media uses can be grouped into three viewpoints: behavioural theory, social theories, and mass communications theories. It is worth mentioning that each perspective has its own merits and demerits. For example, scholars who focus on the social capital perspective can observe how resources and benefits which can be a significant determinant of social media acceptance and use. On the other hand, the critical advantage of the behavioural approach is that it offers researchers the opportunity to explore how users come to accept technology (like social media) and how they use that technology which aligns with this current study. Additionally, as perceived usefulness is a critical influencing factor in technology usage, TAM2 can be useful in exploring the adoption and use of social media in supply chains. Another merit for TAM is that the social capital effect tends to be overly complicated and might lack parsimony (Bouwman and Van de Wijngaert, 2009). A significant implication then is that results for TAM2 versus social capital theory may produce substantively different conclusions.

Some studies (e.g. Hsu and Lin, 2008; Hossain and de Silva, 2009; Casaló et al., 2010; Kwon and Wen, 2010; Steyn et al., 2010; Casaló et al., 2011) have used TAM to predict the use of social media. This study is in line with the aforementioned studies, although the findings tend to differ, probably due to the differences in its research questions and methodologies (see table 3.1 below). The limitations of TAM 2 are: (1) the results of using TAM are based on the users' perception not the actual feature of the technology. (2) TAM researchers are unable to examine the effect of technology use on B2B relationships. For example, TAM does not explicitly include any relational elements

which can influence the model. These are just a few TAM2 problems and scholars are beginning to call for a critical review of TAM and claim that TAM may have missed, ignored or excluded some critical theoretical constructs in predicting technology acceptance (Hsu and Lu, 2004; Wu et al. 2010). In mitigating this limitation, the current study complements TAM by including the relational view of the firm theory (Dyer & Singh, 1998).

The relational view of the firm theory argues that “an individual firm is often unable to cope with the challenges of global competition by its own resources and capabilities” (Wong, 2011.p.1). As such, the sources of competitive advantages are not only limited to the internal resources owned by a firm but also from the external resources in the relational networks as well (Dyer & Singh, 1998; Lavie, 2006; Arya & Lin, 2007; Wong, 2011). Thus, the use of social media may positively or negatively affect supply chain relationships. Nevertheless, the principal use of the latter (TAM2) approach is that important information on the unique and influential factors can contribute to a preliminary understanding of the use of social media. Consequently, the study makes a unique contribution to integrating both technological and relational perspectives. As such, the subsequent sections focus on exploring (1) an overall use of social media in supply chains by SMEs, and (2) the effects on b2b relationships. In the sections that follow, the two theories that underpin the study is further detailed. The discussion begins with TAM2 and then, the relational view. See table 3.1 for further studies using the acceptance model in SCM literature.

Table 3.1 Studies using TAM in supply chain management articles

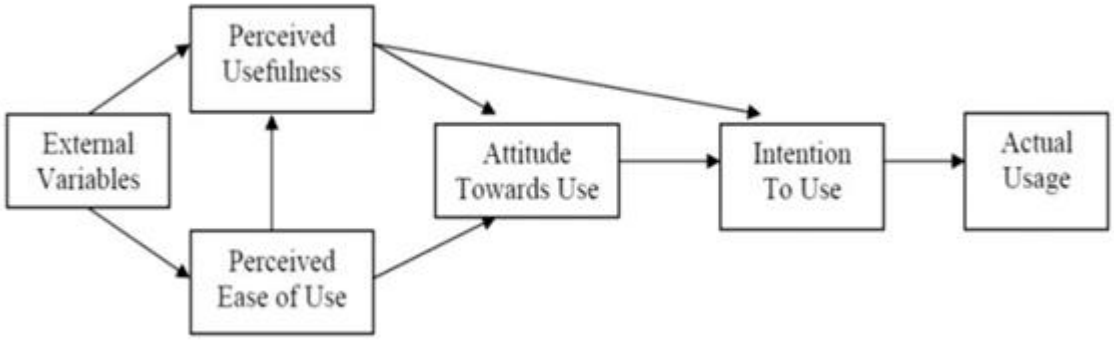
#	Authors and year	Title	Journals	Focus of study
1	Hsu and Lin, 2008;	Acceptance of blog usage: The roles of technology acceptance, social influence, and knowledge sharing motivation	Journal of Information and management	The study seeks to identify what motivates people to engage in participating in blog activities. Using Theory of Reasoned Action and TAM, a survey of 212 bloggers were conducted. They found that ease of use and enjoyment, and knowledge sharing (altruism and reputation) were positively related to attitude toward blogging, and accounted for 78% of the variance. While social factors (community identification) and attitude toward blogging significantly influenced a blogger intention to continue to use blogs.
2	Hossain and de Silva, 2009;	Exploring user acceptance of technology using social networks	Journal of High Technology Management Research	The study sought to extend TAM further to incorporate the influence of the different types of social ties. They found that virtual communities showed weak and strong ties influence technology acceptance.
3	Casaló et al., 2010;	Relationship quality, community promotion and brand loyalty in virtual communities: Evidence from free software communities.	International Journal of Information Management	The study's objective is to determine the main antecedents and consequences of the consumer involvement in communities. The findings revealed that satisfaction with a virtual community might increase the level of consumer participation in that community. They also found positive and significant effects of consumer identification and participation on the level of community promotion.
4	Steyn et al., 2010;	The Social Media Release as a public relations tool: Intentions to use among B2B bloggers	Public Relations Review	The study focused on the factors that influence bloggers to use Social Media Release (SMR). TAM was the theoretical framework employed to focus specifically on the perceptions of usefulness and ease of use by bloggers. Findings revealed that a majority of the intended respondents (57.5%) had not yet been exposed to it.
5	Casaló et al., 2011	Understanding the intention to follow the advice obtained in an online travel community	Computers in human behaviour	The research analyses the precursors of consumer intention to take advice obtained via online travel communities. Findings reveal that the attitude toward the advice, trust in the online community and perceived usefulness of this information plays a crucial role in determining the consumer intention to follow the advice obtained in the community.

Source: Author

3.2.1 Technology Acceptance Model 2

Technology Acceptance Model was first proposed by F.D. Davis in his PhD. thesis at MIT University and subsequent publication- “A technology acceptance model for empirically testing new end-user information systems: theory and results” (Davis 1986; Davis et al. 1989). Although, the model was developed mainly for the information system industry, it is aimed at improving the understanding of user acceptance processes, and to provide a theoretical framework for a user’s testing methodology. Today, the model has since been expanded (the model itself and to different fields), modified and critiqued since its inception (e.g., Davis 1986; Davis et al. 1989, Venkatesh and Davis, 2000). TAM is useful to introduce new system (or technology) prototypes to potential users, to measure their motivation to use these (alternative) systems and to identify the likely user adoption (Davis 1989). Over two decades later, the model still remains one of the most widely used and cited work in information systems. For example, as of January 2018, Proquest database provided by Leeds University listed 27,975 journal citations to journal articles that expanded TAM (Venkatesh and Davis, 2000) while public search engines like Google scholar listed 13, 568 citations. The TAM model was derived from the theory of reasoned action (TRA) proposed by Ajzen and Fishbein (1980). Davis (1986) sought to understand the user acceptance of information systems by adapting TRA. He investigated the motivational variables that mediate between systems identities and the end user’s computer actual use. Specifically, how systems (particularly its features and capabilities) affected user’s intent to use the system and to what extent the intent resulted in actual use. Despite the usefulness of TAM in research, TAM has received some criticism surrounding it theoretical accuracy and the application of the model. See figure 3.1 for details of the TAM1 theory.

Figure 3.1 Technology Acceptance Model (TAM 1)



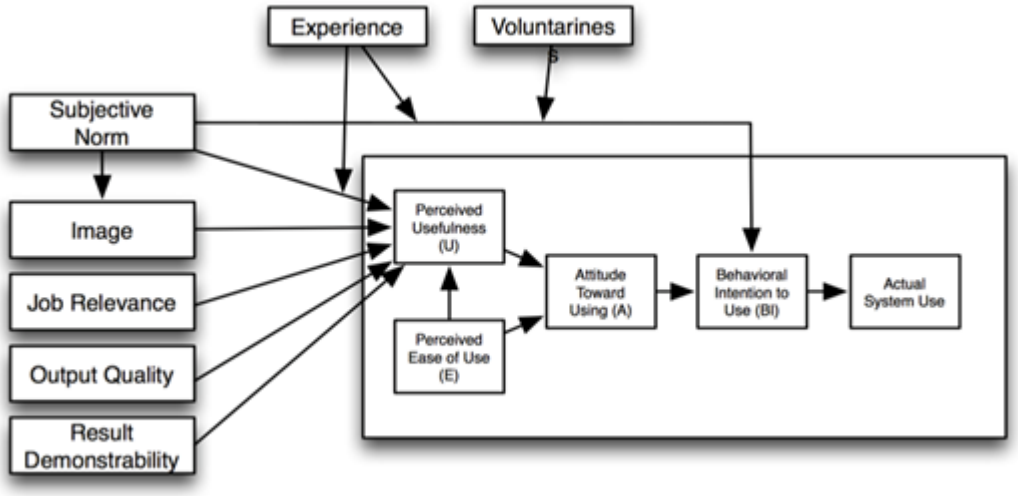
Source: Venkatesh and Davis, (2000)

Following the description of TAM in section 3.2.3.4, TAM found that the perceived usefulness (PU) and the perceived ease of use (PEOU) have a direct effect on behavioural intention (BI). The two main beliefs at the central of TAM are (1) Perceived usefulness (2) Perceived ease of use. The perceived usefulness is defined as the extent to which a person believes that using the system will enhance his or her job performance (Venkatesh and Davis, 2000 p.187). In another word, perceived usefulness refers to a user's subjective likelihood that using a specific technology/system may increase performance (Davis, 1989).

The perceived ease of use is defined as the extent to which a person believes that using the system will be free of effort (Venkatesh and Davis, 2000 p. 187). In another word, perceived ease of use refers to the user's subjective likelihood that a user expects to use technology/systems without difficulties. There are many criticisms of TAM; collectively this critique can be discussed in two folds. (1) TAM did not measure for external social influences (such as subjective norms) and the possible effect on technology acceptance. (2) In addition, TAM initial findings revealed that attitudes had no significant effect on behavioural intentions (Davis, 1989). For example, Dholakia et al., (2007) questioned that strength of intention-actual use relationship in TAM. Yang and Yoo (2004) also argued that constructs such as attitude might be critical to the model and needs to be reassessed in the TAM model. Chuttur (2009) also argued that TAM doesn't employ the real actual use of the technology but rather the perceived or self-reported use of the technology in focus.

TAM2 was proposed by Venkatesh and Davis in 2000. Further theoretical constructs such as 1). social influence processes (like the subjective norm, voluntariness, and image) and 2). cognitive instrumental processes (like job relevance, output quality, result demonstrability and perceived ease of use) have been added to form TAM2. TAM2 stems from and extends TAM by showing that subjective norm has a significant direct effect on usage intentions over and above perceived usefulness and perceived ease of use (Venkatesh and Davis, 2000). In addition, TAM2 provides an account of the critical factors underlying perceived usefulness and explains up to 60% of the difference in the usage intentions (Venkatesh and Davis, 2000). The proposed model TAM2 is shown in Figure 3.2 next.

Figure 3.2 Technology Acceptance Model (TAM2)



Source: Venkatesh and Davis (2000)

It is worth noting that the three main constructs in TAM2 are 1). social influence processes (like the subjective norm, voluntariness, and image) and 2). cognitive instrumental processes (like job relevance, output quality, result demonstrability and perceived ease of use) and 3. The perceived usefulness which has been adopted in the apriori temple obtained mainly from literature.

3.2.1.1 Social influence

Social influence is of importance to social psychology as it can help to understand how an individual's action, thought, or feelings are influenced by groups (Fulk et al., 1900; Lederer et al. 2000; Hsu and Lu, 2004; Dholakia et al. 2004; Kulviwat et al. 2009). Social influence is defined by (Deutsch and Gerard, 1955 p. 629) as the "influence to accept information from another as evidence about reality." In a supply chain context, if a buyer or supplier suggests that a social media platform might be useful, a supply chain member may believe that it actually is useful, and in turn intend to use social media. Venkatesh and Davis (2000) posit that social influence processes affect the perceived usefulness and usage intention. TAM2 deliberates on the influences of three interrelated social forces known as the subjective norm, voluntariness, and image that underpinning the opportunity to adopt or reject a new technology (Venkatesh and Davis, 2000).

3.2.1.2 Subjective norm

A **subjective Norm** is defined by (Venkatesh and Davis, 2000 p. 187) as a *"person's perception that most people who are important to him think he should or should not*

perform the behaviour in question" (Fishbein and Ajzen 1975, p. 302). Social norms can be viewed as the accepted standard of behaviour that is used to guide and direct individuals in a group. For example, when individuals the behave accordingly, they get rewards, but when individual behave inadequately, they may receive punishment. Earlier studies into TRA by Fishbein and Ajzen (1975) and subsequently Theory of Planned Behaviour (TPB by Ajzen 1991) suggest that subjective norms can have a direct impact on behavioural intention to use the technology. This view is also supported by Taylor and Todd (1995). However, other studies by Mathieson (1991) showed no significant effect of subjective norm on intention. This view is also backed by Davis et al. (1989), their findings showed that subjective norm had no significant effect on intentions and perceived usefulness and ease of use. Subjective norms emphasize the individual's surroundings and bring to light factors such as social network, communities, beliefs and cultural norm. The rationale behind subjective norms is that they are driven by the desire to be accepted/influenced by a member of a group or those they look up to (those in authority, peers or superiors). For example, an individual may or may not adopt social media based on the level of social influences this is important as these individuals may or may not ordinarily use these technologies if they were no consequences or motivation. In this study, social norm refers to the degree to which the individual perceives that others approved of his or her social media use.

3.2.1.3 Voluntariness

Voluntariness is defined by Venkatesh and Davis, (2000 p. 188) as "the extent to which potential adopters perceive the adoption decision to be non-mandatory." This goes back to previous studies that show when an organization mandates the use of a particular system, their intentions, and usage remain varied as many users may be unwilling to comply (Hartwick and Barki, 1994). The direct compliance influence of subjective norm on intention is said to operate when a person perceives that a (social) actor wants a specific task to be performed (Kelman 1958; French and Raven 1959). Additionally, and more importantly the social actor possesses the ability to reward or punish noncompliance (Warshaw 1980; Venkatesh and Davis, 2000). TAM2 proposes that in a social media usage context, the direct compliance effect of subjective norm on intention over and above perceived usefulness and perceived ease of use will occur in mandatory, but not voluntary, social media usage settings. The rationale behind voluntariness is that behaviour intention considerably tends to differ when users adopt technology voluntarily vs mandatorily initially.

3.2.1.4 Image

The image is defined as "the degree to which use of innovation is perceived as enhancing one's status in one's social system" (Moore and Benbasat 1991, p. 195). According to Kelman (1958), people would normally respond to their social influences to develop or sustain a favourable image within a reference group. TAM2 proposes that social influences (such as subjective norms) can positively influence 'image.' The reason is that important members of a social group may believe that if they can perform a behaviour (e.g., using social media), then using it may tend to elevate his or her status within the group (Blau 1964; Kiesler and Kiesler 1969; Pfeffer 1982). This form of social influence is known as the identification, compliance and internalization of technology use (Kelman, 1958). However, French and Raven (1959) view the source of identification as referent power. In typical business environments, with a high level of interdependence with other (social) actors in performing their task, increased standing within the group can be based on power and influence (Blau 1964; Pfeffer 1981 & 1982; Venkatesh and Davis, 2000). Pfeffer (1982, p. 85) argues that individuals in groups "achieves membership and the social support that such membership affords as well as possible goal attainment which can occur only through group action or group membership." This can be achieved through processes such as partnership formation, social exchange, and resource allocation (Blau 1964; Pfeffer 1981 & 1982; Venkatesh and Davis, 2000). This increased power and influence from their elevated status may provide a perception of closeness. For example, an individual within a firm may perceive that using social media may lead to improvements in b2b relationships (which in turn improves competitive advantage) due to their image enhancement, then the benefits attributed to social media use (Venkatesh and Davis, 2000). The rationale behind the image is that the use of technologies like social media may be to enhance their social status. This social construct is situated between the TRA and TPB continuum.

3.2.1.5 Experience

There are theoretical and empirical studies that suggest a direct consequence (outcome) between subjective norm and intentions which may subside over time with increased system experience (Barki and Hartwick 1994; Venkatesh and Davis, 2000). Authors like Barki and Hartwick (1994) suggest that subjective norm had a significant effect on intentions prior to system building, its influence, however, became nonsignificant three months after its application. They go further to explain (in pp. 458-459) that prior to system/technology use, the knowledge and beliefs about a system are deemed to be "vague and ill-formed," and thus they depend more on the opinions of others as the root for their intentions. Subsequent to adoption, when more information

and knowledge (strengths and weaknesses) of the technologies/system are identified through direct experience, the normative influence tends to dwindle. Agarwal and Prasad (1997 p. 575) study found that “mandating the use of a system can increase initial system utilization,” and “overcome the hurdle of first-time use.” They go further to explain that this pressure seems to wear away over a period of time. This view is also supported by other authors (e.g., Doll and Ajzen 1992; Fazio and Zanna 1981; Tybout and Scott 1983; Ram and Jung 1991a & 1991b; Venkatesh and Davis, 2000) which also found that normative pressure declines over time.

3.2.1.6 Cognitive instrumental processes

Recent studies in these areas are centred on the understanding that behaviour driven by a mental account linked to higher-level goals to specific actions are influential for achieving technological use. The theoretical basis for this construct draws on work from three main areas which will be discussed: (1) action theory from social psychology (e.g., Fishbein and Ajzen 1975); (2) work motivation theory (e.g., Vroom 1964); (3) task-contingent decision-making from behavioural decision theory (e.g., Beach and Mitchell 1978; Beach et al,1978). Firstly, action identification theory by Vallacher and Wegner (1987) posits an organized cognitive account of action, called the identity structure. The action (identification) theory links lower-level identities (specific actions) to higher-level characteristics signifying the rationale behind the action, its impact and possible consequences (Venkatesh and Davis, 2000). This identity form can be viewed as a fundamental mechanism by which behaviours are regulated cognitively to promote higher-level goals (Vallacher and Kaufman 1996).

Secondly, work motivation theory by Locke and Latham (1990) argue task-specific plans as a cognitive mechanism whereby acts are selected, combined, and sequenced with the aim of achieving set goals. Task-specific plans can guide behaviour via a conception-matching process (Bandura 1986) linking influential acts to goals. Thirdly, the image theory located in the behavioural decision theory by Beach and Mitchell (1996; 1998) attempts to incorporate the trajectory image concepts. The concept of trajectory image consists of a mental picture of adopted goals in the ideal future state and a strategic image. The strategic image is a mental image of possible action sequences that may guide individual’s behaviour toward the goal states of the trajectory image. During the adoption decision (the process of selection among alternative instrumental or influential action sequences), there are two unique decision stages (1) compatibility (2) profitability. In the compatibility stage, screenings test is done for

incompatible with one's decision standards. In the profitability stage, tests are done to compare the acceptable options directly with one another to determine the best option.

For example, in searching for and selecting a technology to suit the social needs of a firm, the firm would first eliminate any technology whose attributes violate more than a threshold number of standards. These standards can be business reputation and security standards. When more than one acceptable technology remains in the choice set after the compatibility test, then the profitability (or cost) test is used to select the best technology on a return on investment (ROI) basis. The compatibility and profitability tests are based on cognitive processes that assess the match between the characteristics of the trajectory image and the perceived consequences of alternative action plans.

3.2.1.7 Perceived usefulness

The perceived usefulness is defined as the extent to which a person believes that using the system will enhance his or her job performance (Venkatesh and Davis, 2000 p.187). Venkatesh and Davis, 2000 posit that individuals make (perceived) usefulness judgment by cognitively comparing the technology/system capabilities with the task they need do. The primary debate here is will the job (or critical aspects of the job) be challenging without the use of such technology. In this study, we defined perceived usefulness as the degree to which an individual believes that using a social media improved his or her task.

3.2.1.8 Job relevance

Job relevance is defined as “an individual's perception regarding the degree to which the target system is applicable to his or her job. In other words, job relevance is a function of the importance of one's job of the set of tasks the system is capable of supporting” (Venkatesh and Davis, 2000 p181). Studies into human-computer interaction by Black et al. (1987) and Norman (1987) reveal a hierarchical goal model in which higher-level goals (such as writing a document), and lower-level actions are at the level of mouse clicks and keystrokes. Some authors (Kieras and Polson 1985; Polson 1987) suggest that users have a unique understanding (knowledge) about their job situation that can be used as a source for determining what tasks can be performed with a given system. This form of knowledge structures regarding important job goals is rooted in personnel psychology and supported by studies by (Roberson 1989). The rationale here is that job relevance is a cognitive process that influences perceived

usefulness which can be separate from social influence processes. There is empirical evidence that links user acceptance to variables comparable to job relevance such as cognitive fit (Vessey 1991), job-determined importance (Leonard-Barton and Deschamps 1988) and task-technology fit (Goodhue 1995).

3.2.1.9 Output quality

Output quality refers to how well a system performs those tasks (Venkatesh and Davis, 2000 p 191). There is empirical evidence that demonstrates the relationship between perceived output quality and perceived usefulness (Davis et al. 1992). On the one hand, taking an image theory viewpoint, decisions of job relevance are more suitable to take the form of a compatibility test, whereby systems that are considered not to be job-relevant are eliminated from one's choice set for further consideration (Beach and Mitchell 1996, 1998). On the other hand, output quality is less likely to be used for excluding decisions from consideration and are more suitable to take the form of a profitability test. However, given the selection of choices containing multiple relevant technologies one might be inclined to select a technology that delivers the highest output quality.

3.2.1.10 Result demonstrability

Result demonstrability is defined as the "tangibility of the results of using the innovation" (Moore and Benbasat 1991, p. 203). It is said that the most effective technologies are not necessarily the most widely accepted particularly when users have difficulties in its use or attributing benefits such as improved job performance. In other words, individuals/users can form their perceptions of the usefulness of technology when the covariation between usage and positive results is readily distinguished. Venkatesh and Davis (2000) argue that when technology provides effective job- relevant results or benefits desired by a user, but the user finds its use difficult, the user of the technology may have difficulty understand how useful the technology actually is. Agarwal and Prasad (1997) findings reveal that there is a significant correlation between usage intentions and result demonstrability. Some authors (like Hackman and Oldham 1976, Loher et al. 1985) also view the relationships between usage intentions and result in demonstrability as the understanding of the actual results of work activities from a psychological state with work motivation undertones.

3.2.1.11 Perceived ease of use

The perceived ease of use is defined as the extent to which a person believes that using the system will be free of effort (Venkatesh and Davis, 2000 p. 187). The rationale behind the perceived ease of use is that the more unproblematic a system is to use, the more useful the system is perceived in increasing job performance. For example, does the user find it confusing, frustrating or frequently receives error messages when using the technology. There is empirical evidence that dates back to over two decades that perceived ease of use is significantly (directly and indirectly) linked to intention through its influence on perceived usefulness (e.g., Davis et al. 1989, Venkatesh 1999). Perceived ease of use in this study is defined as the degree to which an individual believes that using social media is free of effort.

3.2.1.12 Other technological acceptance factors

The attitude in this study refers to the user preferences when using social media. Previous studies have found that ease of use and usefulness have significant effects on attitude. The intention of this study refers to the extent to which the user would like to use social media in the future.

3.2.2 The Relational view of the firm

The concept of B2B collaboration is becoming common practice in today's business environment. This is probably due to the rationale that competition has shifted from single firms to between supply chains (Christopher and Towill, 2001: Hult et al., 2007). As such, it is believed that collaborative relationships can often make the difference between the long-term business sustainability and short-run dissolution. This escalating trend towards supply chain collaboration is aimed at reducing risk particularly in these times of uncertainty, better innovation, lower cost and better competitive edge (Rezaei, et 2015). Dittmann (2013) argue that accessing to b2b relationships through supply chain collaboration is necessary to improve business dealings under conditions of intense competition and economic uncertainty. This current dynamic business environments facing businesses demand transactional cost view and long-term sustainability (relations) (Myers and Cheung, 2008a & 2008b; Cheung et al., 2010 & 2011).

The relational view of the firm was proposed by Jeffrey H. Dyer and Harbir Singh in their 1998 publication: The relational view: Cooperative strategy and sources of inter-organizational competitive advantage. Almost two decades later, their publication

remains one of the most influential business papers. The relational view serves as a useful lens to help further explore sources of sustainable competitive advantage by carefully examining a pair (dyads) or networks of firms. The academic discipline of SCM has been revolutionized in the last 20 years by a new focus on the role of relations in supply chains. The relational view of the firm does not overturn previous approaches like industry structure view (ISV) and resource-based view (RBV) but rather supplements these ideas. For example, the relational approach has allowed for a shift in focus from industry (in ISV) to the firm (in RBV) to finally dyads, triads or a network of firms. Despite these compliments, differences still exist. For example; the relational view proposes four primary sources of inter-organizational competitive advantage as (1) investments in relation-specific assets, (2) substantial knowledge exchange, including the exchange of knowledge that results in joint learning; (3) the combining of complementary, but scarce, resources or capabilities (typically through multiple functional interfaces), which results in the joint creation of unique new products, services, or technologies; and (4) lower transaction costs than competitor alliances, owing to more effective governance mechanisms (Dyer & Singh, 1998, p. 662). On the other hand, RBV proposes five sources of an organizational competitive advantage as (1) scare physical resources, (2) Human resources, (3) technological resources, (4) financial resources, and (5) intangible resources (reputation) (Lavie, 2006). Another distinction is identified in terms of developing a sustainable competitive advantage. For example, the relational view offers the unique and uncopiable dyadic/triadic/network relationships as a means to the end goal while RBV identifies the inimitability of a firm's in-house resources (and capabilities) as its solution. In summary, it is safe to say that like the relational view takes a collective (supply chain relationship) approach, RBV, on the other hand, takes an individual (firm) approach.

Notwithstanding, RBV plays a key role in understanding the single firm's performance, however, the limitation of this theory is it fails to recognize that the drawbacks and merits of a firm are embedded in the merits and demerits of other members of the supply chain it operates in. However, Dyer and Singh (1998) argue that the firm's critical resources may extend beyond the industry (ISV) and the single firm (RBV) boundaries. The relational view has been extended by Lavie (2006) by identifying new forms of rents/competitive advantages. He further argues that the firm relations and partner-specific factors (such as opportunism) may determine the networks relational rents created jointly (not independently) by trade partners via critical resources that may be external to the firm. The relational view of the firm theory offers a sound theoretical basis to complement analyzing how the use of social media affects relationships with and between supply chain members.

3.3 The ontological and epistemological considerations

The approaches to social science research are primarily dependent on the researcher's beliefs and philosophical orientation. This philosophical orientation to a large extent guides the study of social phenomena. As a result, there are many philosophies associated with the use of different kinds of research strategies and methods (Grix,2002). Philosophical orientation can directly or indirectly influence the research, sometimes unbeknownst to the researcher. The interplays between a researcher's beliefs and the philosophical orientation are known as the ontology (Becker, 1996; Grix,2002).

Ontology refers to the "nature of being" or "reality" often represented as assumptions or claims regarding what we know. Blaikie (1993, p 6) defines ontology as the "claims or assumptions that a particular approach to social inquiry makes about the nature of social reality – claims about what exists, what it looks like, what makes it up and how these units interact with each other". Simply put, ontology, a philosophical study of social reality seeks to address questions concerning the object of study and the claims (or assumptions) surrounding the nature of social reality. These questions include -*how do we know what really exists*? Bryman (2005) noted there are two main concepts of social reality, namely "objectivism and social constructivism". Other authors (Saunders et al., (2007:108) refer to the two dominant ontological positions as 'subjectivism' and 'objectivism'. Also, other terms used in this study to describe the ontological positions are objectivism and social constructionism. Social constructivism maintains that social phenomena are formed from perceptions, and their meaning are socially constructed and subject to change (Bryman & Teevan, 2005). On the other hand, objectivism maintains that social phenomena exist independently and beyond the influence of individual/social actors (Bryman & Teevan, 2005). Simply put, social phenomena and their meaning have an existence that is independent of social actors or without any influence from the researcher. A researcher with a social constructivist ontology would study social reality subjectively through the lens of people, and the individual's reality may be in an ongoing transformation in the process of construction and reconstruction (Remenyi et al., 1998). An implication of the social constructivist conception in social research can be to interpret (make sense of) how reality has come about and what it means to different people. Whereas, a researcher with an objectivist ontology preference would tend to study social reality objectively, accurately, and capable of being replicated and self-produced (Saunders et al., 2007; Weed, 2009). An implication of the objectivist concept in social research can be to explain how social reality works.

Other questions at the centre of philosophical debates include what knowledge or reality is, the issue of how to measure it, and to what extent does knowledge guide the researcher choice of method. Epistemology refers to the study of knowledge. Knowledge refers to a justified true belief. Considering that knowledge is not just belief, but justifiable and true belief as well, it is important for the belief to be true and most importantly justified. There are ongoing concerns related to the questions of epistemology. For example, what is known and what criteria must knowledge satisfy for it to be called knowledge rather than beliefs? What should be considered acceptable knowledge in the discipline, and can the social world be studied according to the same principles as the natural sciences? How do we measure knowledge (Blaikie, 1993; Grix, 2002: Saunders et al., 2007) Given that, there is no one consensus as to what constitutes knowledge, the lack of consensus also translates into how knowledge or reality can be measured and forms the premise for Epistemology. Accordingly, Blaikie, 1993: p 6-7 defines epistemology as “claims or assumptions made about the ways in which it is possible to gain knowledge whatever it is understood to be; claims about how and what exists may be known. Epistemology is a theory of knowledge that presents a view and justification for what can be regarded as knowledge.” Simply put, epistemology is the philosophical study of knowledge and deals with the most appropriate way to discover reality. Epistemology contributes to the methodological paradigms that guide the research in many ways. 1) It helps to reflect on how and what is possible to know 2) It provides the research methods with standards to generate reliable and verifiable knowledge 3) It sets the criteria upon which good knowledge may be differentiated from incorrect knowledge. 4) It provides a basis for what, and how reality is described (Chia, 2002; Denzin and Lincoln, 2003; Hatch and Cunliffe, 2006). There are two central concepts of social reality namely positivism and interpretivism which mainly depends on the individual epistemological and ontological tendencies.

Positivists believe that only the information provided by the senses can result in the scientific knowledge it means that they advocate for the application of methods of natural science such as objective observation, structured and law-like generalization to the study of social reality. This is in line with view that humans are regarded as natural objects, and their behaviour can be explained by external forces that act on them such as the social norms they’ve been exposed to their social class, gender etc. on the other hand, Interpretivism affirms that the subject matter of social sciences people and their institutions is fundamentally different from that of the nature of science. for this reason, investigating social actors requires different methods and procedures their goal is to understand individual behaviour in an empathic way or in another word to grasp their point of view about the reality in which they live. In this manner, interpretivism makes

sense of the world from the individuals point of view instead of observing their behaviour and looking for relations between cause and effect. The individual's ontological and epistemological inclinations may influence the choices and manner of conducting research into social phenomena.

3.3.1 The philosophical assumptions of the study- social constructivism/ interpretivism

There have been well-established and ongoing debates amongst scholars on the best research methodology (Saunders et al., 2009) in social sciences and management research. These philosophical debates have given rise to many confusing and contradicting arguments about which philosophy is for which particular field. For example, studies by Orlikowski and Baroundi (1991) show that positivism is the most widely used philosophy in information systems. For example, findings by Alavi and Carlson (1992) support the view that positivism is a popular and commonly used philosophy. Steinmetz (2006) had attempted to associate the positivist philosophy with the fields of the social sciences. Bryman (1984) associates the positivist philosophy with social science research then applies natural science to it. For example, many IT studies have overlapping areas of interest from different fields such as computer science, business management and social sciences (Hirschheim, 1985: Orlikowski and Baroundi, 1991: Steinmetz, 2006). However, scholars such as Babbie (2007) continue to advocate the case for social constructivism in the qualitative approach to social sciences. It is worth pointing out that no one method is exclusive to a specific to philosophy rather the research question is the determiner of the choice of research.

Objectivism and social constructivist approaches have different classifications, functions, and viewpoints. For example, the ontology viewpoint of a positivist is premised on social structure and facts. Followers of this nomad, use scientific methods, such as experimental and quantitative methods, for hypothesis testing which requires independence observation from the subject (Amaratunga et al., 2002). The epistemological stance of the social constructivist seeks to understand the social construct and provides meaning. Followers of this nomad, use naturalistic and qualitative approaches to understand a phenomenon better. There is an increase in support of IT management research using the social constructivist approach, as opposed to using positivism (which is usually the default) as advocated by scholars such as Hirschheim, 1985: Orlikowski and Baroundi, 1991: Walsham, 1995; Steinmetz, 2006: Babbie, 2015). Accordingly, this study follows a social constructivist stance rooted in qualitative research method.

The ontology and epistemology concepts discussed earlier in section 4.2 provides the premise for the philosophical foundation for this study. Bryman (2005) points out that the underlining philosophical stance of the researcher and the chosen method affects the way research is conducted. Accordingly, as a researcher, I am inclined towards the philosophy of reality that knowledge is subjective to interpretation and what it means to different people draws on the social constructionism ontology. The social constructionism allowed the researcher to obtain insight from human perception or experience. Thus, measuring the truth (in this study) cannot be done qualitatively. Accordingly, given the current scope and nature of knowledge in the topic area, this study adopts an interpretivism stance. In this study, it is established that the use of social media exists on the basis of human perception and the unit of study is the triadic relationship in supply chains (see 4.7.2.2). The processes adopted in this study follow the qualitative interpretivism. In addition, this study is in line with the tradition of qualitative oriented SCM research.

3.3.1.1 The rationale for using TAM from a social constructivist stance utilizing qualitative methods

TAM is an established model in acceptance research into any kind of technology. Research using TAM, in general, has focused mainly on quantitative research methods reflecting the positivistic origin of the model (Lee at al. 2003). Lee and colleagues found that of the 101 TAM studies only three used a qualitative approach. Similarly, Vogelsang et al., 2013p1 argues that applying predominantly quantitative methods have deficits when the findings shall be implemented in practice. The reason for the dominance of TAM in quantitative methods is mainly due to its appropriateness when testing the model, i.e. applying statistical methods and test relationships between constructs and variables. The scarcity of qualitative methods from a social constructivist perspective may have overlooked many important questions (Palvia et al. 2003). For example, when quantitative findings from TAM does not detail the “how,” i.e. how is technology made useful or how specific variables like nature of relationships affect the acceptance of technology in more significant details. Quantitative methods steeped in positivist viewpoint may also overlook some backgrounds information and details in research question. For example, scholars (i.e. Kavanagh and Ashkanasy 2006; Ouadahi 2008) in their respective studies found that leadership and personality impacted on technology acceptance using qualitative methods grounded in social constructivist. Other scholars (i.e. Vreede et al. 1998; Zoellner et al. 2008) found that technology-specific factors played an important role in technology use. Vogelsang et al., 2013 also supports this view, they found that the few studies where TAM is investigated with qualitative methods

provided result well beyond the theory. Despite these outstanding contributions, these articles are unpopular and don't seem to find their ways into highly ranked journals (Vogelsang et al., 2013). It is worth mentioning that traditionally TAM in information management were developed from a positivistic approach while the adoption of TAM in this study has been adopted from an interpretivist/ social constructivist approach. An example of such study interpretivist approach using TAM was carried in this study using a methodology similar to that used by Renaud and Van Biljon, (2008) in their research into the technology acceptance and use of mobile phones by the elderly. Based on the above discussions, this study adopted a qualitative approach from a social constructivist standpoint.

3.4 Research approach

There are basically two main types of research 1) Quantitative Research and 2) Qualitative Research. Qualitative and quantitative research are usually strategic in nature and relies on a set of established methodology for the collection and analysis of data (Babbie, 2015; Saunders et al. 2007; Cresswell, 2007). To better understand each fundamental premise and the assumption most suited to maximize the research question asked, consideration should be given to how qualitative and quantitative research differ. Table 4.3 shows the summary of the differences between qualitative and quantitative research.

Table 3.2 Differences between qualitative and quantitative research.

Qualitative Research	Quantitative Research
Tends to focus on description and interpretation of participant(s) behaviours, experiences or perspectives of a phenomenon in great depth	Tends to focus using statistical techniques to explain or quantify a phenomenon
Text-based data required	Numeric Data required
Follows an inductive (bottom-up) process to obtain insights into phenomena that are hard to measure quantitatively and might lead to the formation of a new theory or concepts	Follows a deductive process used to test pre-conceived concepts, constructs and hypothesis that can be generalized to the wider population
It provides a comprehensive account (data) of the participant(s) or behaviours in their natural setting.	It provides an explanation of the cause and effect of the phenomena that may involve experiments, controlling or the manipulation of variables.
It involves flexible and emergent processes	It involves strictly defined processes

Author's adaptation of the advantages and disadvantages of Quantitative and Qualitative Research Methods by Saunders et al. (2007)

3.4.1 The rationale for the qualitative research

A qualitative approach is best suited to answer how businesses are affected by social media use or non-use by another business. Qualitative research is particularly useful as the research question involves 1). Exploring the use of social media in supply chains by SMEs. 2) understanding the different viewpoints (buyer, supplier) 3). Takes into account the real-life context of the study 4) provides the flexibility needed to probe further. 5) As there was limited research on this topic, statistical data was not required only textual data form primary source was needful. This quote helps to summarize the rationale for choosing qualitative over quantitative research, *"Not everything that can be counted counts and not everything that counts can be counted." Einstien.*

3.4.1.1 The rationale for primary data

There are two primary sources of data 1) primary 2) secondary. Primary sources are information obtained directly, while, secondary sources are information obtained indirectly. To better understand these sources, consideration should be given to how both sources differ. Table (4.4) shows the summary of the difference between primary and secondary sources.

Table 3.3 Differences between primary and secondary sources

Primary Sources	Secondary Sources
Data obtained from interviews, observation, experiments, and survey	Data obtained from published sources, Government web site
Flexible enough to address specific research questions	Less Flexible Process
Real-time data can be obtained	Past data can be obtained
Information obtained is reliable	Less reliable information
It can provide focused results	It can provide collection of information, both targeted and non-targeted information
Lack of data bias	Data bias

Source: Author

In this study, there was no secondary source that specifically provided information related to the research area. Although, there were some journal articles from published database like ABI, Business Source Premier, Google Scholar, ProQuest, Web of Science, Science Direct and Springer which provided a general picture of the use of social media. This provided a sound overview and a broad foundation for understanding the use of social media. However, due to the nature of SMEs in supply chain (triadic)

relationships and the nature of the research question, it was deemed necessary to use primary sources rather than secondary sources of data. One merit of using secondary information is that data is often readily available. However, the demerits of secondary sources for this study were issues associated with accuracy, reliability, accuracy, and data with significant levels of error.

3.4.2 Research designs

According to Hakim (1987, p1), “design deals mainly with aims, purposes, intentions, and plans within the practical constraints of location, time, money, and availability of staff.” The research design is an essential aspect of the study as it ensures that the evidence obtained enables us to answer the research question as clearly as possible (De Vaus et al., 2001: Yin, 2012). Given the study’s research question, it is vital that a detailed research process is outlined to describe how relevant information is obtained to answer the research question and accurately provide an account of the current phenomenon where little information is known in advance.

Bryman (2004) describes a research design as a detailed plan that guides a research study towards achieving its purpose. In other words, it is a plan that guides the choice of the research strategy (what data to collect and from whom), research method (when and how to collect data) and (how to) analyses the data. Similarly, Yin (2013, p 26) refers to a research design as essential for linking the data collected (and the conclusion drawn) to the research question. Churchill (2005) identified the two main types of research design as 1). Cross-Sectional and 2). Longitudinal design. Cross-sectional research design refers to the study of the state of affairs in a population or subset at a certain point in time (Bethlehem, 1999; Zheng, 2015). In other words, it refers to a snapshot of the research subject at a particular period. In contrast, longitudinal research design refers to the change and development of a phenomenon over a period of time (Bryman 2004). In other words, the longitudinal design can span for a long time. To better understand the premise of the research design, consideration should be given to how both designs differ. Table 3.4 shows the summary of the difference between cross-sectional and longitudinal research.

Table 3.4 Difference between Cross-Sectional and Longitudinal Research Design

Cross-Sectional Research Design	Longitudinal Research Design
Tends to focus on differences in people or behaviours at a particular point in time	Tends to focus on factors, themes or variables over a period of time.
Uses a specific time frame	Continuous in nature
Quick to conduct	requires a long time and long-term commitment
Inexpensive to conduct	Expensive to conduct
Information obtained is usually targeted.	Rich and in-depth source of data including relevant and not so relevant information

Source: Author

A longitudinal study was deemed inappropriate for this study for the following reasons. 1). It involves a long- time and financial commitment bearing in mind that the time of doctoral study completion is three to four years with a limited budget. 2). Its implementation is often riddled with ambiguous guidelines 3). There is a risk of participants dropping out of a minimal sample size especially as the study period becomes longer.

3.4.3 The rationale for the cross-sectional design

The cross-sectional research design was adopted in this study for the following reasons. 1). A target or subset of the population was selected (see section 5.2 for further details of samples. 2). From this subset or targeted sample information was obtained to help address the research question at a point in time. 3). It requires less time and is also less financially demanding.

3.5 Nature of research

There are three basic approaches to research 1). Descriptive 2). Explanatory 3). Exploratory. To better understand each fundamental premise and the assumption most suited to maximize the research aim of this study consideration should be given to how descriptive, explanatory and exploratory research differ. Table (4.2) shows the summary of the differences between descriptive, explanatory and exploratory research.

Table 3.5 Difference between descriptive, explanatory and exploratory research

	Descriptive	**Explanatory**	**Exploratory**
Research Aim	Tends to focus describing characteristics of a population or phenomena	Tends to focus on explaining the cause and effect relationship	Tends to focus on providing insights and ideas
Structure and design	A structured approach to data collection	A rigid approach to data collection	Flexible approach to data collection
Sample	Generalized to a larger population depending on the sample size	Large sample size and generalizable to a larger population	Small sample size non-generalizable to a larger population
Statistical Process	Hypotheses may be tentative and often speculative	Testing of pre-specific hypotheses involved	No hypotheses or ambiguous hypotheses involved
Data collection	Mainly involves data via surveys, and quantitative research	Mainly involves experiments and quantitative research	Mainly involves data via interviews, survey, pilot studies, case studies and qualitative research

Author's adaptation of the advantages and disadvantages of descriptive, explanatory and exploratory strategy by Kumar (1999)

3.5.1 The rationale for an exploratory approach

In this study, exploratory research is employed particularly as the research aim is to understand better "the use of social media in supply chains by SMEs." In another word, the approach allows the opportunity to investigate using well-defined theories like TAM2 and relational view (see chapter three) of a firm and its application to the research area. In this study, an exploratory approach is best suited to provide in-depth insights into social media usage from a supply chain and SME context. In addition, the exploratory approach is particularly useful given that 1). There is limited research into the use of social media in supply chains specifically from an SME perceptive. 2) The use of social media in supply chains is a relatively new concept. For example, the use of social media in marketing has been well researched while little attention has been given to its use in a supply chain context. 3). It ensures that a more detailed, rigours and comprehensive platform in which future studies can build upon are achieved by providing rich and useful information on the subject matter. 4). It also helps to set the criteria or priorities for the study- triadic (B2B) relationships. 5). It can help to provide new insights and ideas. For

example, SCM literature has focused on traditional technologies like RFID, this study can provide new insights into contemporary technology like social media. Information on social media usage in supply chains by SMEs may be used to improve B2B relationships and which can be used in ultimately improving their competitive advantage and formulating policymaking.

Many SCM studies into relationships were carried out mainly from a buyer perspective, and many marketing studies into social media were carried out mainly from a B2C perspective. It was needful to approach the research from a holistic viewpoint due to two reasons. 1) To address the gaps in literature 2). The nature of SMEs in supply chain relationships- in this study SMEs take the form of either buyer or supplier in a relationship with other SMEs or larger firms. The B2B use of social media in supply chains can be viewed from the supplier's perspective as well which is arguably a balanced and holistic approach. Given the relevance of B2B relationships and suppliers, it is surprising that little to no research had adopted such viewpoints.

The research question- "***how does the use of social media by SMEs affect relationships with and between supply chain members"*** was formulated from an understanding of literature and the research gaps. The study aims to obtain the current information on the use of social media in supply chains by SMEs. SMEs in triadic (B2B) relationships served as the area of focus which provided a better understanding of social media use from a supply chain context. This allowed an exploratory and inductive approach for which new and emerging insights on the research question can be made.

3.6 Research context

The search for relevant literature on "the use of social media in supply chains by SMEs" was the initial step in finding an appropriate approach to this research. The gaps in the literature (see section 1.3) mainly meant two things. (1) The subject area has not been well researched (or underdeveloped) from a supply chain context. (2) The research question of this study is yet to be fully addressed from a supply chain relationship and SME supplier perspective. The process of searching for appropriate literature was important to discover the gaps from previous research regarding what has been done and what hasn't been done. Additionally, it also provided an understanding of the numerous themes associated with the subject area before the appropriate approach could be considered.

Literature searches commenced by initially broadly targeting relevant articles on the “use of social media in supply chains by SMEs” using databases like Web of Science, ProQuest, ABI, Business Source Premier, Science Direct, Google Scholar and Springer specifically. A limited number of articles were identified (see section 1.3.2). Other useful journals included the “Journal of Marketing Research” (on JSTOR), “The Journal of Supply Chain Management” and “Management Information Systems Quarterly. However, despite the insights gained from the limited articles on the subject matter and their references, a decision was made to broaden the search to industrial report and sources like HBR (2009), Mckinsey (2010, 2015), PWC (2014) and FT (2012a&b) using the Google search engine. It can be argued that social media in supply chains was only at its nascent stage and needed combining multiple sources. Thereby, providing further secondary information on themes associated with the research aim and question. The idea of paying for rare access to articles on social media was deliberated, however, upon careful consideration of many articles had no relevance to the subject matter.

Although the classification and depth of the literature were time-consuming, it was deemed critical in developing the initial template. In the review of literature carried out, the themes used in earlier studies in the research area are varied and numerous. The initial template was organized into five important bodies of literature: 1) Supply Chain Relationship/Relationship management 2). Transactional Exchange 3). Competitive Advantage 4). Social Media Use 5). Environment. Due to restrictions in word count, only the themes relate to the study is provided without going into a reasoned explanation. The table 3.6 shows the initial template revealing important themes (and references) that require further exploring.

Table 3.6 A priori template

Chains of Inference	Themes	Authors/Articles
Supply Chain Relationship	Trust, dependency, Power, and Control (**attributes of social influence from TAM2**).	Hsiao et al (2002); Hald et al (2009); Sahay (2003); Grandori and Soda (1995); Adamides et al (2008): Choi and Wu (2009), Benton and Maloni (2005); Hsiao et al (2002); Li and Choi (2009); Williamson (2008): Adamides et al (2008); Wilding and Humphires (2006); Muthusamy and White (2006); Choi and Krause (2006); Cox (2004); Wu and Choi (2005); Humphires and Wilding (2003); Grandori and Soda (1995); Harland et al (2004); Knight and Harland (2005): Skipper et al (2009); Goffin et al (2006); Maloni and Benton (2000): Frazier (1983): Lusch and Brown (1996): Moorman et al (1993): Mrogan and Hunt (1994): Cook (1997): Barney and Hansen (1994): Brenkert (1998): Mentzer et al (2000): Porter and Donthu (2008); Porter (1985c): Cravens et al (1996): Wu et al (2004); Wood and McDermott, 1999, Suh et al, 2010; Singh (2009)
	The orientation of buyer-supplier relationship	Wu and Choi (2005): Stevens (1989): Dubois and Frediksson (2008): Berry et al. (2009): Akintoye et al. (2000): Bresnen and Marshall (2000)
	The orientation of supplier-supplier relationships	Choi and Wu (2009a &b), Wu and Choi (2005), Choi et al (2002), Choi and Kim (2008), Dubois and Fredriksson (2008) & Obstfeld (2005); Li and Choi (2009) Wu and Choi (2005): Loforte (1991): Caplow (1959): Caplow (1968): Madhavan et al (2004): Mills (1954): Simmel (1950): Wuyts et al (2004): Walker et al (2008): Loforte (1991) : Lazzarini et al (2001): Lazzarini et al (2008)
	B2B interaction (formal and interpersonal)	Davis (1963): Lassar et al (1995): Gligor and Autry (2012); Chua et al (2009); Hsiao et al (2002); Goffin et al (2006): Chua et al (2012): Beck et al (2005): Castleman (2004): Zheng et al (2004): Heider (1958): Denzin (1989): Emmitt et al., (2009); Lassar and Zinn (1995): Wilson et al (2009)
Exchange/Transaction	Transactional exchange	Forrester 1958: Cook (1997): Dainty et al 2001; Hingley 2001; Choi and Krause (2006); Samaddar et al (2006); Jammernegg and Kischka (2005); Harlan et al (2004); De Toni and Nassimbeni (1995); Grandori and Soda (1995); Ireland et al (2002); Garcia-Canal, et al (2003): Gravovetter (1995): Weber (1964): Williamson (1985): Williamson (1993a & b): Gundlach et al (1995): Hoyt and Huq (2000)
	Contracting (Elusive and Inclusive)	Lambert et al (1996); Hsiao et al (2002): Dowst (1988): Ellram (1990): Lusch and Brown (1996): Spekman et al (1998): Rossetti and Choi (2005): Rossetti and Choi (2008): ACA (1999): Alderman and Ivory (2007): Cheng et al (2004): Cheung et al (2005): Cheung et al (2006): Cheung et al (2010): Green (1999): MacNeil (2000): Manley and Hampson (2000)

Continued Table: The Initial Research Template

Chains of Reference	Themes	Authors/Articles
Competition and Competitive Advantage	Use of Relationship Management	Mentzel (1993): Berry (1983); Cox (2001): Cox (2004): Cheng et al (2004): Cheung et al (2005): Cheung et al (2006) : Cheung 2006): Cheng et al (2008): Cox and Ireland (2002): Cox et al (2006): Gronroos (1996) : Gronroos (2002); Gronroos (2007): Gummesson (2001): Kale and Arditi (2001); Larson (1997): Sheth (1995): Day (2000): Vlachopoulou and Manthou, 2005; McDermott and Chan (1996)
	Use of Resources, Capabilities **(from the relational view)**	Ross (1998): Barney (1991), Ayers (1999): Cheng et al (2008): Imai (1986): Dolber et al (1998): Weiber and Kollmann (1998): Stalk (1988): Ayers (1999): Barney (1991): Croom (2001): Fox (1998); Loan- Clarke et al (2000): New and Mitropoulos (1995):
	Management of IT (innovativeness) and control	Obstfeld (2005): Powell and Dent-Micallef (1997): Bruns and Stalker (1994): Jassawalla, and Sashittal (1998): Khalfan and McDermott (2006): Walton (1985): Winch (2000): Mendonca and Sutton (2008): Prahalad and Krishnan (2008): Chesbrough (2003): Chesbrough (2006): Hippel (2005): Lambe and Spekman (1997): Weiber and Kollmann (1998): Rogers (2003): Strang and Soule (1998), Subramani, (2004).
	Information Sharing or Information Misuse	Mentzer et al (2001); Chua et al (2009); Cheng, (2011) Johnsen et al (2000); Kemppainen and Vepsalainen (2003); Harland et al (2004); Harland et al (2001); Edmunds and Morris, 2000; Ellram and Cooper (1990); Cooper and Ellram (1993): Lee et al (1997); Stank et al (2001)Naslud and Williamson 2010); Maloni and Benton (2000): Du et al, 2012; Lee et al (2007): Urbany et al (1989) : Gruhl et al (2004): Nowell and Kleinberg (2008; Ayers (1999): Nelder and Skandalakis (1999): Guo et al (2006): Hayek (1945); Singh and Power, (2009)
Social Media Use	Internet Infrastructure	Chua et al. (2009); Premkumar and Roberts (1999): Golicic et al. (2002): Berry et al. (2009): Greemstein and Feinman (2000): Hamill (1997)
	Appropriateness (**usefulness and ease from TAM2**) of social media	Matsura, (1991): Akintoye et al. (2000): Khazanchi (2005): Venkatesh and Davis, 2000; Greemstein and Feinman (2000): Hoffman et al. (1995): Leskovec et al. (2007): Ashcroft (2010a):
	Overlapping and Evolving use of SM (**Cognitive process form TAM2**)	HBR (2010); Vinuale et al, 2011; Petkovska-Mircevska and Markova (2013); Chua et al (2009 & 2012);Rayport and Sviokla (1995): Chung and Kim (2008): Huberman et al (2005): Java et al (2007): Kempe et al (2003): Newman and Park (2003): Zhao and Rosson (2009): Rajagopal (2009)
Environment	Orientation between buyer-supplier relationship	Wu and Choi (2005): Stevens (1989): Dubois and Frediksson (2008): Berry et al. (2009): Akintoye et al. (2000): Bresnan and Marshall, (2000)
	Differences in Market	Forrester (1958): Burt (1992): Briggs (1994), Lambert et al (1996); Harland (1996): Lambert et al (1996), Premkumar and Roberts (1999): Boso et al (2013): Ching and Ellis (2004): Chong (2006): Galloway and Mochrie (2005): Williamson (1975): Forrester (1958): Cravens et al (1996): Sanchez (1993): King et al (2010)
	Business Size/ supplier/buyer Power/ Risk	Porter (1985a): Cravens et al (1996): Hingley (2001): Boso et al (2013); Burke (2005); Levenburg (2005): Premkumar and Roberts (1999); Burke (2005): Fillis et al (2004); Martin and Matlay (2003); Goffin et al (2006)

3.7 Research strategy

According to Robson (2011), there are three main types of research strategies namely 1). Experiment 2). Surveys 3). Case Study. The experiment aims to measure the effects of planned (or unplanned) changes to one more variables. A survey aims to the collection of information from individuals using a standardized form while case study aims to collect detailed and rich information about single or multiple numbers of the related phenomenon. To better understand the premise and appropriateness of the research strategy, consideration should be given to how they differ. Table 3.7 shows the summary of the difference between experiment, surveys and case study strategy. Considering the nature of research question posed, the natural context and control by researcher experiments and surveys were deemed unsuitable. Let's take a closer look at case study strategies.

Robson (1993, p 146) defines a case study as "a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real-life context using multiple sources of evidence." Another definition by Yin 2013, p 240) describes case study as "The purpose of a case study may be to describe, explain or explore. A case study can be focused on an individual or groups of individuals, businesses or a subset of an organization such as a department". Case study refers to "a plan that logically links the research questions with the evidence to be collected and analyzed in a case study, ultimately circumscribing the types of findings that can emerge" (Yin 2013, p 240). The preceding definition can be approached in threefold. In the first part of the threefold definition, the case study is referred to as logically rather than the logistical structure of the inquiry especially as it is concerned with conforming case rather than disconfirming quantities. The second part of the definition points to the case study as separate from the method by which data is collected and analyzed. For example, although case studies are generally associated with participant observation, and interviews. As the third part of the threefold definition, case study provides findings that can be analytically (rather than statistically) generalized to theory. This is because cases are not necessarily sampling units (but rather a unit of analysis) and may not be large enough to serve as an adequate sample size to represent a larger population (Yin, 2013; Rowley, 2002).

There are many forms of case studies. For example, a study can be a single or a multiple case study. It can be single if the case is 1) unique or extreme in nature 2) typical or representative example 3). It is an important one. Case studies are also not limited to qualitative research alone but to quantitative research as well. Case studies can also be explanatory, descriptive

or exploratory. A case can focus on individuals, groups, businesses or a subset of organizations, for example, a department.

One strength of case study strategy is related to the nature of research the questions being asked. For example, a case study design can be selected when the main research questions seek to answer “how” or “why” questions (Yin, 2013). Additionally, case study plan provides a means to explore real-life or complex social settings consisting of multiple variables of potential importance in understanding the phenomenon (Merriam, 2009). The use of case study can result in a rich, detailed and holistic account and analysis of a phenomenon. It can provide insights and meanings that can expand the knowledge base as well. Case study strategy helps in providing a foundation for the analytic (rather than statistical) and theoretical generalization. it identifies disconfirming cases and provides useful information for assessing the empirical results. However, there is a need to address such critical research issues as reliability and validity (Yin, 2013; Tsang, 2014). Although the use of case study can provide strengths, its use can present certain limitations such as issues with time consumption, reliability, validity, and generalization. For example, findings from a single case cannot be statistically generalized to a broader population. This is not to say that much cannot be learned from a descriptive analysis of a single case or unit (Stake, 2005). Table 3.7 shows the difference between experiments, surveys and case study

Table 3.7 Difference between experiment, surveys and case study strategy.

Experiment	Surveys	Case Study
Useful when the research question posed focuses on “how” and “why.”	The research question focuses on “who,” “what,” “where,” “how many,” “how much.”	Useful when the research question posed focuses on “how” and “why.”
It allows control over the behavioural event.	No control by the researcher is required	No control by the researcher is required
They do not occur in the natural setting and requires hypothesis testing	emphases are the modern phenomenon	The study is usually carried out in its natural setting
Involves the selection of a representative sample from the known population	Involves the selection of samples from a known population	It involves the selection of case(s) from a specific population or subset
Usually, uses samples from different conditions	Usually, uses a large sample size	Usually, uses a small sample size
Uses quasi-experiment	Uses questionnaires or structured interviews techniques	Uses interviews and observation techniques

Source: Author

3.7.1 The rationale for case study strategy

The case study approach was deemed more suitable than experiments and surveys as the strategy for this study for three reasons. 1) The type of research question posed. The case study was deemed suitable as a "how" research question in this study was being sought. This kind of question is a justifiable reason for carrying out an exploratory case study. 2). The researcher had little to no control over the phenomena or behaviours as opposed to experiments 3). The focus of this study is a current phenomenon within its real-life context as opposed to a historical phenomenon. In addition, this study adopted multiple case studies to explore "***how does the use of social media by SMEs affect relationships with and between supply chain members."***

3.8 Ethical considerations

Research ethics is considered the interaction between the benefits and risk (to participants and the researchers) to consider when conducting research (Ritchie et al. 2013). For example, on the one hand, conducting this research will provide benefits in terms of contributions to theory, practice, and policy (see section 1.5). On the other hand, it is also important to consider the likely risk associated with this study as well. In the next subsection, consideration will be given to the underlying issues in an attempt to mitigate any ethical concerns.

This study is comparative by nature, it involves 1) data collection from two (developing and developed) countries 2) information gathering from participants in three sectors (High Tech, Low Tech, and Fashion) 3) obtaining information about their business relationships and technology use. It was necessary to seek approval from the Leeds University Research and Ethics Committee which took a total of four months. The committee raised some ethical concerns such as 1) access and safety 2) anonymity 3) changes to ideas for data collection. The ethics application forms were resubmitted and approved on the 25th of September 2014, along with minor changes to the participant information sheet and consent form. The research and ethics committee gave ethical approval for the study on the 9th of October 2014.

3.8.1 Access

The issues of safety were viewed as detrimental to study and may hinder access and rapport. Saunders et al. (2007) add that access should be critically considered from the onset as it can pose a risk to the research. Access strategies including some from supervisors, the ethics

committee of Leeds University (see section 4.8.1) and friends were employed in gaining access to businesses and participants. As a result, intended participants were carefully considered, deliberated and reviewed with significant flexibility to accommodate their wants and wishes.

3.8.2 Anonymity

The issue of maintaining the anonymity of participants and confidentiality were carefully considered as many participants may not wish to have their words publicized as it may affect their business relationship. Participants are treated in the strictest confidence that guarantees anonymity. Efforts were made to ensure that all information provided would not be personally linked to the participant's responses or their company. Participant information sheet is provided that clearly states that only the interview participant would be aware of the identity. The code of ethical guidelines developed by Leeds University coupled with the advice of research supervisors was aimed at assisting and clarifying these issues. Stake (1995) suggest that exploring ethical issues at the outset should be considered. He further suggests that providing information note (vignette) can help inform and guide participants. Efforts were made to provide adequate information to prospective participants on the nature of the research such as brief description, clarity of purpose and how the information gathered and treated (see appendices A 4.3, 4.4 & 4.6).

3.9 Analysis techniques

3.9.1 Template analysis

Qualitative data obtained from interviews can be scrutinised using thematic approaches (Esterberg 2002; King, 2004). One form of thematic analysis is template analysis. According to King (2012), template analysis refers to a set of procedures that guides the analysis of qualitative data. He also adds that the approach involves identifying key themes in the data that can be classified into hierarchies of broad themes and subthemes (Brooks and King, 2012: King, 2012). King (2012) explains the use of template analysis involves some distinctive features. Features include 1) the use of initial templates and 2) the use of 'a priori' themes. These 'a priori' themes are drawn from existing literature or theories and are useful in identifying (in advance) possible themes and patterns of the study (King, 2004: Waring and Wainwright, 2008). There are however some theoretical and practical concerns surrounding template analysis as the analysis has the tendency to become highly complex and time-

consuming. The effectiveness of this approach includes the continuous re-evaluation and the adjustment of themes according to the changing environment (King 2004). The initial template (coding structure) is applied to each transcript and modified where necessary to capture information (King, 2004). The template will be subsequently modified and finalized to represent new themes emerging from literature and/or new themes emerging from the data collection method.

Template analysis is deemed appropriate as it aids in the selection of key themes which are useful in exploring the rich data obtained. This allows the focus to rest on answering the research questions and also, broadly recapturing other areas of interest (King, 2004). Qualitative analysis process usually includes developing data categories, data categorization, utilizing data, recognizing relationships to generate well-grounded conclusion (Saunders et al., 2007). The computer-assisted software NViV0, version11 helped in the organization of large amounts of text and complex coding schemes facilitating depth, which allows for cross-examination of data (coding, linking ideas and searching of the database) that provides rigour and subsequently, in exploring the data themes.

3.10 Criticism of qualitative case research

Despite the merits of a qualitative approach (see section 4.3.1), qualitative research has attracted criticisms. The criticism includes: 1) The findings of a qualitative study may not be generalizable to a larger population due to the small sample size and the non-random selection of participants. 2). reliability and validity issues.

There is also many criticisms of a case study strategy in qualitative research, particularly for the following reasons. 1) It is deemed as being too specific to a particular social setting and unable to generalize to a wider setting. 2) It does not take into consideration statistical analysis or sample size calculation. 3) It is subject to issues of bias and subjectivity in the interpretation of results. 4) reliability and validity issues.

Similarly, Shipman (1988) suggest that there are four fundamental problems often at the core of discussions regarding qualitative research that can affect its quality. They can be summed up as 1) reliability 2) validity 3) generalizability and 4) replication. There are ongoing debates about whether the terms reliability, validity, generalizability, and replication can be applied to qualitative research. Other alternative concepts used in assessing the quality of research include 1) Trustworthiness 2) Credibility 3) Confirmability 4) data dependability (Bryman,

2001). While it remains unclear which terms are applicable to qualitative research, scholars such as Mason, 2002 argue that indeed these quantitative measures can be applied to qualitative research. While, authors such as Guba and Lincoln, 1994 suggest that they should be replaced with other criteria specific to qualitative research. Despite, these debates, it remains unclear whether they are appropriate to be used in qualitative research.

One issue associated with qualitative research is reliability, reliability can generally be approached and interpreted into two categories: 1) External reliability 2) Internal reliability (Marshall and Rossman, 1995). External reliability is generally concerned with the operation of the study. For example, are the same result obtainable if the study is repeated under a different circumstance, with other people? It is challenging to replicate a social setting or obtain the same response to a question as changes do occur which might lead to at least slight variations. Internal reliability is concerned with consistency. For example, do others agree with the study findings? The goal of reliability is to reduce error and bias in a study.

The second issue is generalisability. Generalisability is an important issue in qualitative case study research, and as such there are significant concerns regarding the extent to which qualitative data gathered in the study reflects a broader population (Yin, 2009). Interviewer bias is also another concern for case study research. A number of methodological procedures have been recommended to avoid (or minimize) the limitations associated with the interview bias. For example, interview questions were carefully crafted and tested in the pilot. The differences in the participant's background and perspective were reflected in the questions. Additionally, research synopsis and guide were sent with a cover letter explaining the reason behind the research, and a guarantee of their anonymity to participants in an attempt to inform and motivate. The interview was less scripted and flexible to accommodate the flow of information, obtain further details and seek clarification.

Another issue is validity. Validity is generally concerned with the extent to which the results accurately reflect the research under investigation (Marshall and Rossman, 1995). The term validity is similar to reliability but at the same time may often be interpreted differently. Issues with validity can generally be approached and interpreted into two categories: 1) External validity 2) Internal validity. External validity is generally concerned with identifying the area to which a study finding can be generalized (Yin, 2012). Internal validity is concerned with establishing a causal relationship, where certain conditions may have led to other conditions as differentiated from a spurious/false relationship. For example, is the data/study an accurate reflection of, the phenomenon.

While these issues are valid concerns, however, it is also worth pointing out that the research question of this study aims to provide rich and detailed insights into a specific subgroup rather than a general population. The rationale behind this is that the use of social media by SME in B2B relationships is unique or differ from social media use by the general population. It is this uniqueness or differences that are the focus of this study. This study does not aim for the generalization of the results to a broader population (theoretical not a statistical generalization). It instead seeks to explore the phenomena. As such, the small and purposeful (targeted) sample size is suitable. It is worthy of note that issues with reliability were tackled using a triangulation approach. For example, in case A, data was discard (Res A1) following the triangulation of the buyer and supplier and new respondent (Res A1b) was identified to be interviewed.

3.11 Chapter summary

This chapter presented the choice of theories, philosophical basis and the methodological choices made in the study. The research design, strategy and method were also discussed and justified. In addition, sampling, ethic consideration and data analysis were examined. In the next chapter, data is analysed, and the findings are presented.

Chapter 4 : DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter presents the analysis of data collected from the exploratory interviews with business owners, top and middle managers of eighteen businesses (in UK and Nigeria). The chapter is organized as follows. Section 4.2 discusses the profile of the cases. Section 4.3 discusses the approach to data collection. Section 4.4 examines the profile of the participants. Section 4.5 discusses the data analysis. Section 4.6 and 4.7 discusses the final template and findings. Finally, it ends with a summary of the chapter.

4.2 Profile of cases

4.2.1 Case study A

Case A consist of a Global IT software and software application company (Res A1) with a branch in Nigeria, a local Finance and IT service supplier (Res A2- the supplier in this case), and a local Information Worker and Collaborative Portals solutions service provider (Res A3- the second supplier in the case). The dyadic relationships between Res A1-A2 & A1-A3 span over 8 and 11years ago subsequently. Supplier- Res A3 formally managed the activation centres as they run the support centres for Firm A1. While, Res A2 was brought into a project by one of Firm's- Res A1's largest client due to their many capabilities. Res A1 would directly bid for projects with the supply and sometimes against their suppliers. Added to this, Res A1 had many suppliers, given that Res A2 &3 were considerably smaller and Firm A1 had more market reach which the supplier couldn't have access to without remaining in partnership with them. In this triadic case, although Res A1 advocated a collaborative ethos, conflicts of interest and distrust issues were emerging, and relationships were primarily transactional. This relationship was characterized by contract agreement, joint problem solving, work orders confirmation and payments.

4.2.2 Case study B

Case B consist of a Nigerian based charity (firm B1- the buyer in this case) and two local food catering SME firm (Res B2 & B3- the suppliers in this case). The charity is spread nation-wide but centrally based decided to introduce more food suppliers. The dyads between Res B1 &

B2, Res B1 & B3 spanned over six and five years consequently. In this triadic case, relationships were kept transactional. Lower cost was of importance when selecting Res B2 whereas, quality was of importance when selecting Res B3.

4.2.3 Case study C

Case C consist of an SME fashion company (Res C1- the buyer in this case) which specialized in making couture handbags, shoes and scarfs and two local fashion accessories SME firms (firm C2 & C3- the suppliers in this case). Res C1 operations were characterised by few suppliers, frequent interactions and expanding markets. Dyadic relationships between Res C1 & C2 and C1& C2 spanned over seven years each. In this triadic case, relationships were collaborative with frequent transactional exchanges (regular purchasing volumes).

4.2.4 Case study D

A Global banking firm IT department in the UK (the buyer) with operations characterised by many products offering, many suppliers and marketing programmes. Although there were issues of conflicts and distrust between the buyer and two (SME) suppliers, they remain in B2B relationships with each other.

4.2.5 Case study E

Two UK firms, the buyer- a large charity and two suppliers -food catering SME firms, carried out business for many years.

4.2.6 Case study F

An SME fashion company (the buyer) made dress and handbags, shoes. Their operations were characterised by few suppliers, frequent interactions and expanding markets (online and internationally).

4.3 Approach to the data collection

There are several methods of collecting primary data such as 1). Questionnaire 2). Observation 3). Interviews. Observation can be a suitable way of data collection when the research is focused on “what people do.” There are two main types of observation 1) Participant Observation and 2). Structured Observation. One significant difference between these forms of observation is that participant observation is focused on discovering the

meanings individuals attach to their actions while structured observation, on the other hand, is centred on the quantifying (frequency of) actions.

4.3.1.1 Semi-structured Interviews

Having described and chosen an exploratory, qualitative case study research strategy as the most suitable approach to gathering data to understand the specific cases of interest and themes that may emerge in the study, it is important to choose a feasible data collection method to answer the research question of the study. Interviews are defined by Kvale (1996: p174) as "a conversation, whose purpose is to gather descriptions of the [life-world] of the interviewee." Yin (2003, p.92) adds that "*interviews are an essential source of case study evidence because most case studies are about human affairs*. These human affairs should be reported and interpreted through the eyes of specific interviewees, and well-informed respondents can provide important insight into a specific situation."

In addition, interviews could be categorized by structure and standardization into structured; semi-structured and unstructured (in-depth) interviews (Saunders et al., 2009). Structured interviews can provide rich insights into the areas of interest. Whereas, semi-structured interviews help to probe answers, seek further explanation and expand on challenging to understand elements of the interview (Saunders et al., 2009). In the structured interview, the questions are usually closed (in a set order), controlled and uses a detailed schedule with questions asked in a specific order. The type of interview to be used depends on the nature of the research question to be addressed. The semi-structured interview was suitable in this study for these reasons. 1). It provided comparable and reliable qualitative information. 2). it afforded the opportunity to probe answers and solicit further clarification. 3). It lends itself to the exploratory nature of the research as well as gains in-depth insights into the understanding complex phenomenon under study than structured or unstructured interviews. 4). Semi-structured interviews allowed participants the flexibility and freedom to express their viewpoint.

There are several interview-based techniques in data collection. They are 1). Face-to-face interviews 2). Telephone interviews 3). Email/ Online interviews via (Skype, MSN or face time) (Opdenakker, 2006). The face-to-face interview can provide opportunities where the interviewer can observe nonverbal cues like body language. In addition, the interviewer can probe for clarification of unclear response. However, there are some shortcomings associated with the face-to-face method. 1). It is time and financially demanding particularly in cross-geographical studies. 2). It can allow for bias which may result in some distortion or imbalances in viewing the interviewee's perspective. Telephone interviews are nonvisual ways

of collecting data. The merits of telephone interview are 1). Increased flexibility 2). Quick method 3) No security issues. However, the demerits include 1. No visual method of collecting data. 2). Harder to create rapport 3. time issue. Online/email interview method usually involves the emailing of questions to the participant to complete and return to the researcher or logging into a social networking platform to interact online or via an internet link (Opdenakker, 2006). A number of advantages associated with this technique have been cited. Among these are the ease of reaching multiple potentials and targeted participants especially those in different geographically location (Sturges, and Hanrahan, 2004; Opdenakker, 2006; Kvale, 2007; Saunders et al., 2007; Waring and Wainwright, 2008). Unfortunately, research also shows that the email/online interview method can be a less efficient technique for data collection because it involves a considerable amount of time, internet infrastructure, savviness, and resources (Strauss, 1987). In addition, with mounting security scams and vulnerability, many businesses and individuals may avoid accepting the request or opening email attachments particularly with the risk of virus infection or security compromise. As a result, email/online interview technique was not deemed as the best data collection method for the current study.

Data collection methods involved face-to-face and telephone interviews. Nine of the eighteen interviews conducted in Nigeria were phone interviews (October 2014 to March 2015); the final set of 9 interviews conducted in the UK were face to face interviews (March 2017 to Nov 2017). The face-to-face interview method was chosen for the UK participants for these reasons. 1). It allowed for clarity between the research and participants from the targeted firms in the United Kingdom. 2). It requires direct interaction, personal contact, and rapport. 3). It allowed the expression of body language, visual display of expressions and exhibition which cannot be expressed using telephones, emails and online interview techniques, e.g. Skype interviews. 4). It offered the opportunity to gain good responses to open-ended questions. 5). It provided opportunities to probe participants further and yield more detailed results.

Telephone interviews were chosen for this study (Nigeria stage) as it was convenient and comfortable method given the interview already had an established relationship with the interviewee and sensitive nature of the information required. For example, the participants may require a longer time to develop rapport and interaction, which practically could not be done over the phone, especially where there are none established relationships between the interviewees and interviewer. However, given the already established relationships, the participants may feel easier and comfortable to reveal quality information, in spite of the sensitivity of information required and the need to assure complete participants confidentiality.

Also, given the state of unrest, travel warnings and security issues in Nigeria, face-to-face interviews were not a preferred technique for the study due to the high associated risk and safety concerns for the interviewer. This is despite the merits of face to face interview in obtaining and ensuring high response rates and good responses (Dickson-Swift et al. 2007; Sturges, and Hanrahan, 2004). However, the university recommendation from the risk assessment deemed too risky to conduct face-to-face interviews in Nigeria at that time. Telephone interviews lasted for a minimum of half an hour. Also, to avoid bias, both buyers and suppliers were interviewed for two reasons. 1) Their contribution as members of supply chains is valuable and insightful. 2). To reflect the diverse perspective of the chain (triad). 3). To get a balanced view of the phenomenon under investigation.

4.3.1.2 Open-Ended Questions

The adoption of open-ended question allows interviewees to respond to questions in their own words without restricting them (Geer, 1988). It is argued that open-ended questions can provide significant culturally and meaningful responses (Bryman, A. 2004; Saunders et al. 2011). Secondly, open-ended questions could help provide rich insights and explanation for the cases under study. Thirdly, open-ended questions can help provide responses that are unanticipated by the researcher (Kvale, 2007). Lastly, it allows flexibility and responses can be expanded on or clarified. It is important to note that some questions overlap and the order was not followed in a strict sense but in all the same questions were asked in all individual interview for consistency reasons. The development of the interview questions and the types of information sought were reflective of the study's research question and the theme that emerged from literature. In all interviews (n=18) were audio-recorded with participants' consent and transcribed verbatim. In the sections that follow next, details relating to the type of information sought; supply chain relationships; business exchanges; source of competition; social media use and the business environment are discussed.

The section that follows provides a detailed description of the type of questions sought. That is, questions and themes surrounding the area of interest like (1) Supply chain relationships, (2) Business exchanges (3) Competitive advantage (4) Social media use and 5) the environment asked during the interviews. Specifically, five central questions with subsets were set to reflect triadic relationship in supply chains and the use of social media as recommended by Choi, and Wu, (2009) & Gligor and Autry, (2012) respectively. Additionally, in drawing on the works of (Boso et al., 2013) questions on the market environment and competitiveness were also reflected. Moreover, questions capturing the transactional exchange was also asked (Dubois and Gabbe, 2000; Cox, 2004; Myhr, and Spekman, 2005). Furthermore, questions

about innovativeness on a business level were sought. Details of the research guide are provided in Appendix A.4.6.

The development of the interview questions was done with full acknowledgement of the efforts details in the pilot stage of the study. Given the comprehensive revisions that were made to the interview questions prior to the pilot stage, only minor corrections needed to be made at the main interview stage. The key learning points learned at the pre-test stage and insights gathered from colleagues, supervisors and doctoral conference helped to improve the quality of interview questions significantly. Indeed, the interview procedures suggested by authors like Nigel King were followed in developing and designing the question. In summary, King (1994 pp.14-15) suggests that qualitative research interviews should have "a low degree of structure; a preponderance of open questions; a focus of 'specific situations and action sequences in the world of the interviewee' rather than abstractions and general opinions." In consistent with emerging research practice (e.g., King, 1994; King, 2004; Braun and Clarke, 2006; King, 2012) the use of open-ended questions were selected for this study.

4.3.1.3 Interview Pilot Test

All interviews were conducted by the researcher. In addition to the 'a priori' themes from previous studies and existing literature, the final questions were pretested with a selected participant to validate the interview questions as relevant, reflective of the themes and addressing the research question. Prior to pre-testing, the interview questions in the study were reviewed by the two research supervisors. For example, the academic experts suggested that the questions be customized in suit the two primary targets: (1) questions for the buyers and (2) questions for the suppliers. In addition, an agreement to re-wording of initial questions and exclude the use of buzzwords and academic terms that may be confusing to the interviewees. As a result, of the review, "a one size fits all" set of questions was developed to suit both buyers and suppliers (see appendices A 4.1 & 4.2). At the pilot test, a telephone interview was held with one (SME) business owner in Nigeria, since the business owner who participated in the pilot interview expressed no concerns with sensitivity, length, and wording of the questions, it was agreed that the pilot interview could serve as the first interview instead of re-conducting the interview again using the same questions.

4.4 Profile of interview participants and study sample

4.4.1 SMEs definition

Many studies have examined firm size by using two key variables: total annual revenue and number of full-time employees (Tatoglu et al., 2015; Rezaei et al., 2015; Awheda et al., 2016). Similarly, the Central Bank of Nigeria defines SME's as "businesses with a turnover of less than 250 million Naira per annum and/or less than 300 employees" (CBN, 2010) while the UK, the Department for Business, Innovation and Skills (BIS) defines an SME as an "organization with less than 250 employees" (BIS, 2016, p: 9). In drawing on these prior examples, the study uses the firms' full-time employees and total annual revenue (or sales turnover). Although there are slight variations in these definitions, the study opts to use the BIS definition.

4.4.2 Triadic relationships in supply chains

Authors (like Wandfluh et al, 2015; Antoniolli, 2016; Ghadimi et al, 2015; Isaksson and Seifert, 2016; Tanskanen, and Aminoff, 2015; Maglaras et al, 2015; Marshall et al, 2015) have argued that the level of supply chain relationships can be examined by considering the smallest unit of analysis is a dyad. On the other hand, other researchers (like Choi, and Wu, 2009; Autry et al, 2014; Van Hoek et al, 2014; Shi et al 2014; Hartmann and Herb, 2015; Wynstra et al 2015; Chardine-Baumann and Botta-Genoulaz, 2014) have argued that the smallest unit of analysis is a triad, not dyad. In following the examples from Choi and Wu, the level of the firm's supply chain relationship was studied by collecting information on the firm's supply chain members and categorizing them according to their level of closeness or transactional exchange. In accordance with Choi and Wu's 2005 classification, it can be said that triads can come in different forms. In line with the examples, the study will examine triads consisting of one buyer and two suppliers (buyer-supplier-supplier) or one central firm and two suppliers.

Supply chain relationships in this study are also referred to as relationships triad (or triadic relationship) which include a buyer or a firm and two suppliers with at least on SME in their supply chain. There are three main rationales behind selecting triadic relationships rather than dyadic relationships. 1) Authors (e.g. Choi and Wu 2005) have indicated that triads, instead of dyads are the simplest forms of relationships that help SCM researchers to investigate a firm and their dyadic relationships with and between supply chain members. 2) triadic relationships could enable the researcher to better explore the direct and indirect influences with and between buyers and suppliers. 3). This study focuses not only on buyer-supplier relationships

as in past studies but on relationships between suppliers (supplier-supplier) as well. Table 4.1 shows the nature of triadic relationships in the study.

Table 4.1 Triadic relationships

Case number	Nature of actors in the triad (Buyer-supplier-supplier)	CASE ID	Country
Case 1	Non-SME – SME - SME	A1, A2, A3	Nigeria
Case 2	Non-SME – SME - SME	B1, B2, B3	Nigeria
Case 3	SME - SME - SME	C1, C2, C3	Nigeria
Case 4	Non-SME-SME-SME	D1, D2, D3	UK
Case 5	Non-SME-SME-SME	E1, E2, E3	UK
Case 6	SME - SME - SME	F1, F2, F3	UK

Source: Author

It is worth mentioning that to provide a rich and detailed description relationally means a one-on-one (1:1) breakdown of the analysis. This creates a dyadic perspective (for example buyer-supplier or supplier-supplier) which can be useful in its own rights, however, by studying the triad it affords us the opportunity to study the similarities, differences in their dynamics, themes, patterns of behaviour, modes of communication, interactions, and (negative and positive) impacts. Additionally, all participants were interviewed separately.

4.4.3 Sector/ Industry

One-third of the firms in the cases were from the firms in the IT industry while 33 per cent focused on food manufacturing industry and another 33 per cent focused on the fashion industry. In total, the sectors from the high tech, low-tech, and creative sectors were sampled. The rationale behind the three sectors is to provide a comparative, balanced but diverse basis for the use of technology (i.e., social media uptake, the pace of industry and nature of sector-visual or non- visual). The main industries examined in the study are shown in Table 4.2.

Table 4.2: Industries interviewed

Industry Type	Number of cases based in the UK	Number of UK firms interviewed	Number of cases based in Nigeria	Number of Nigerian firms
High Tech	1	3	1	3
Low Tech	1	3	1	3
Creative	1	3	1	3
Total	3 cases	9 firms	3 cases	9 firms

Source: Author

4.4.4 Targeted cases

Three of the most common sampling strategies used in qualitative research are quota; snowball and purposive sampling. Quota and purposive sampling appear quite similar but on closer look show a slight variation. They are similar as they both have criteria or characteristics of study such as size. However, they tend to vary as purposive sampling is often used when the number of interview participants is more a target and less a strict quota (steadfast requirement). The sampling method employed is purposive as the participants are selected according to preselected criteria appropriate to the research question. A sample size of 18 firms (9 in each country) is fixed prior to data collection and dependent on the research aim, time, and resources. Purposive sampling is influenced by feasibility and responsiveness (Saunders et al. 2007) as well. The purposive sampling technique is selected because other techniques like random probability sampling would not contribute to the feasibility and responsiveness as the competence of the participants is guaranteed. Additionally, Snowballing sampling also known referral sampling was employed. Especially in situations where participants contacted refer their supply chain supplier or buyer firm as a possible participant in the study.

In terms of the targeted supply chains, only firms with a minimum of one SME in each supply chain triad were recruited. 78 per cent (7 of the 9 firms) of the Nigerian respondents were SMEs in B2B relationships with larger or other SME firms, and 22 per cent (2 of the 9 firms) of the Nigerian respondents were larger firms in B2B relationships with SME or other large firms. The total number of SMEs is presented in table 4.3.

Table 4.3 Main businesses targeted

Type of business	Number of UK SME Respondents	% of UK SME Respondents	Number of Nigerian SMEs	% of Nigeria SME Respondents
SMEs	7 firms	78%	7 firms	78%

Source: Author

4.4.5 Geographical location/country

Researchers (like Lee and Workman, 2014; Huang et al., 2003; Sims, and Gegez, 2004) have used the Hofstede cultural dimension theory as a lens to compare cultures with and across countries. However, the framework is not relevant for comparing cultures with and across organizations. Unlike Lee and Workman, this study does not use the Hofstede cultural dimension distance score. However, authors (like Scuotto et al., 2016; Boso et al., 2013;

Camelo-Ordaz et al. 2015; Sölvell, 2015; Alexiev et al., 2016; Popovski et al., 2015) have used the firm's innovativeness as a lens to compare culture with and across organizations. Like Scuotto and colleagues, this study uses firm innovativeness to compare the cultures with and between the participating firm, cases, sectors, and countries as reported by the respondents. To further explore the scope of the firm innovativeness, the study also asked participants to provide information on the use (and non-use) of other technological tools in their firms.

4.4.6 Business experience

The cases contain a reasonable age of participating firms that were in business for a considerable number of years. The minimum number of years the Nigerian firms have been in business was six (6) years and the maximum of 41 years as shown in table 4.4. Regarding the firms' business experiences (in terms of the number of years in operation), the study found that average business experience was 14 years however some firms had as little as 2 years and less social media experience.

Table 4.4: Total number of years in business

Respondent Code	Participating firms in Nigerian and the UK	Total number of years of operation
RES- A1a & 1b	Large Enterprise	41
RES -A2	SME	11
RES -A3	SME	17
RES –B1	Large Enterprise	14
RES –B2	SME	6
RES-B3	SME	8
RES –C1	SME	7
RES –C2	SME	10
RES – C3	SME	8
	Average (Approximately)	14 years

Source: Author

4.4.7 Management level of participants

In addition to providing information on the (targeted) participating firms in the study, it is important that a profile of the individual respondents is discussed as well. The credibility of the participants is a crucial aspect of the validity of the study as doubts cast over a questionable source can affect the integrity of the results (DeVellis and DeVellis, 2000). As this was a supply chain study, it was important that the participants had considerable experience and knowledge

about the B2B relationships and their use, or possibly non-use of social media. The section provides a profile of the characteristics of the (actual) informants that participated in the interviews and represented the businesses in the cases under study. According to Vince and Broussine, (1996) accessing firms particularly the top tier management of any firm is often challenging probably due to their busy work schedules. However, nearly 67 per cent of the firms accessed in Nigeria were top-level managers as shown in table 4.5. This means that over half of the Nigerian data used in the study came from managers who occupied senior (top level) roles such as Owner manager, Chief Executive Officers, and Managing Directors) in their firms. The lowest percentage, about 11 per cent of the participants were senior managers with positions such as services executive. Together, both top-level managers and senior managers accounted for about 78 per cent of participants. The lowest proportion of the informants was those working in functional and middle management level roles such as operations, project (& events) managers. This group of participants accounted for approximately 22 per cent of the respondents that provided data for the study.

Table 4.5 Positions of Participants

Position	Number of participants in Nigeria	% of participants in Nigeria	Number of participants in the UK	% of participants in the UK
Top management	6 informants	67	6 informants	67
Senior management	1 informant	11	1 informant	11
Middle management	2 informants	22	2 informants	22
Total	9	100	9	100

Source: Author

The final information on the participants had to do with their management experience. The average management experience of the participants was 9 years as seen in table 5.5. Moreover, 67 per cent of respondents indicated that they had less than 10 years of management experience while 33 per cent reported management experience of over 10 years. The minimum management experience was 5 years while the maximum management experience of informants was 11 years in the firms. It is worth mentioning that all supply chain triads are local.

Table 4.6 Years of managerial experience and description of Nigerian Research Participants

Respondent Code	Status of Nigerian firms	Positions for Nigerian participants	Management experience	Gender	Age
RES-1a and 1b	Large Enterprise/ Non-SME	Service Executive and Technology Specialist	10	Female	51-60
RES -2	SME	Business Owner	7	Male	51-60
RES -3	SME	Business Owner	11	Male	51-60
RES -4	Large Enterprise/ Non-SME	Project Manager	9	Female	31-40
RES -5	SME	Business Owner	6	Female	41-50
RES-6	SME	Operations manager	8	Male	41-50
RES -7	SME	Business Owner	7	Female	31-40
RES -8	SME	Business Owner	10	Female	51-60
RES – 9	SME	Business Owner	8	Male	51-60
RES-10	Large Enterprise/ Non-SME	Technology Specialist	15	Male	41-50
RES -11	SME	Business Owner	7	Male	41-50
RES -12	SME	Business Owner	5	Female	41-50
RES - 13	Large Enterprise/ Non-SME	Project Manager	7	Female	41-50
RES -14	SME	Business Owner	9	Female	41-50
RES- 15	SME	Business manager	9	Male	41-50
RES -16	SME	Business Owner	7	Female	31-40
RES - 17	SME	Business Owner	11	Female	31-40
RES – 18	SME	Business Owner	12	Male	31-40

Source: Author

4.4.7.1 Age and Gender Classification of Participants

On the gender of participants, data collected showed that majority 7 (38.9 %) were males while females were 11 (61.1 %). These findings indicated that most of SMEs and their supply chain firms were dominated by females. The data on age shows that majority of interviewees were

between 31-40 years, 5 (27.8%), followed by 41-50 years at 8 (44.4%) and 51-60 years at 5 (27.8%) (see table 4.12). This data revealed most of the age groups were not represented (less than 30years) in this study. In most cases, there was one respondent per firm; however, in one case two respondents from the same firm were invited and interviewed at separate times. Two participants (of the non-SME) were interviewed as the researcher felt that a more experienced and relevant manager would provide more useful insights. Consequently, the key top management staff responsible for managing the projects, suppliers, and technology (the services executive) was approached to assist with further response to the interview questions. The details of the research participants are provided in table 4.6. The eighteen participants were coded from RES1- RES18 with RES representing respondent. RES-1a and 1b represent the unique case discussed above.

4.5 Data analysis

Analysis of literature shows findings for the use of social media by businesses, although available findings relate predominately to a marketing context. There are some inherent capabilities (speed, social, cost, interactive and information sharing tool) embedded within social media that implies that social media is a significant relationship enhancing tool, however, not much exist in literature regarding this. This observation represents the focus of this study; "*How does the use of social media by SMEs affect relationships with and between supply chain members*?"

The creation of the initial template started from the analysis of literature. A thorough review of the literature led to 15 sub-themes that underline the research topic. These 15 sub-themes were thoroughly analyzed qualitatively. These themes were positively or negatively acclaimed by participants. At the data analysis stage, 'a priori' themes (allowing for potential themes) and developing an initial template from reviewing existing literature were the principal focus is exploring how existing theoretical concepts apply to the data collected. To this end, it is important that an analytical method was undertaken by way of exploring the 'a priori' themes and applying the initial template to code further data used in the study. The importance of template analysis is well illustrated by Brooks and King (2012, p.3-4): "[*T]he uses of 'a priori' themes means that template analysis may be well suited to studies with particular applied concerns which need to be incorporated into the analysis."*

Consequently, prior themes and initial templates were developed for the purposes of testing out how well existing theoretical ideas apply to the data collected. As such, the section

describes the recommended set of procedures that could be used in guiding the analysis from template analysis literature (like Brooks and King 2012; Brooks et al., 2015; King 2012; Braun and Clarke 2006). The study applies the template analysis introduced in chapter four to the qualitative data collected and modified when necessary.

The study employed template analysis. Each triad was examined to explore ‘how the use of social media by SMEs affects relationships with and between supply chain members?' Initial analysis was carried out on the first data sub-set consisting of three related individual interviews. The text transcripts were closely examined to understand the different perspective fully and re-organized into sub-themes (in the template). The coding used was then re-examined, modified and reviewed. This was done to ensure that the template (thematic) structure is representation and justification of the data and the modified template. Finally, a set of sub-themes in the areas of focus was applied to all the individual interviews. The emerging themes identified from all triads were cross-referenced and reviewed according to their similarities and differences. Each emerging theme was compared with the potential (‘a priori’) themes presented in the initial template (see table 5.1). When one emerging theme shared a similar meaning with an ‘a priori’ themes, the emerging theme was named according to the ‘a priori’ theme. In total, 5 potential themes and 3 sub-themes were identified in the initial template.

These themes were organized into five categories: 1) supply chain relationships (network) and relationship management; 2) exchanges; 3) competitive advantage; 4) social media use and 5) business environment as presented in table 4.7. These themes were from related literature and theories (e.g., relational view of firms and technology acceptance model-TAM 2). It is important to mention that the thesis emphasizes the relationship perspective with 1) buyers and suppliers and 2) between suppliers and the results show the critical themes or factors that affect these relationships. The final template is shown in section 4.10

Table 4.7 Recap of initial themes

Category of influence	Influencing sub-themes	Description
1. Supply chain relationships	a. Trust, dependence, power, and control	These characteristics of relationships that can affect the development and sustenance of supply chain triads.
	b. Triadic relationships	A three-way supply chain relationship (e.g., buyer-supplier-supplier).
	c. Interactions	A confrontation process that occurs between companies and which can change and transforms aspects of the resources and activities of the involved companies and of the companies themselves.
2. Exchanges	a. Transactional exchange	The increase or decrease in cash flow caused by a change in the transfer of goods, services or funds.
	b. Information sharing	The flow/ exchange of data between technologies, organizations, and individuals of supply chains.
	c. Contracts	A written or sometimes spoken agreement between supply chain members, that is intended to be enforceable by law.
3. Competitiveness	a. Use of relationship management	A concept that aims to improve a firm's relationships with both buyers and suppliers.
	b. Resource and capabilities	Are sources of competitive advantage which can mostly be imitated, however, capabilities are usually unique to the firms.
	c. Innovativeness	The ability/ willingness to introduce new or different things, e.g., product, idea or concept.
4. Social media use	a. Technology infrastructure	The platforms (hardware, software, network resources) and services required for the operation and management of individual, social and business environment/use.
	b. Appropriateness of technology	Technology that can be considered practical and right in terms of economically viable, social applicable and environmentally sustainable.
	c. Overlapping social media use	The use of social media that extends for another purpose (like personal vs business use).
5. Environment	a. Competition/collaboration	Working together with other supply chain firms to achieve a shared goal.
	b. Market orientation	The business approach/ philosophy focused on sensing and identifying demands.
	c. Supplier/buyer power	The pressure exerted by the buyer or supplier in a supply chain triad.

Source: Author

4.6 Final template

The original template was developed after the review of the literature (see table 4.8). The themes from that template underpinned the questions asked during the interviews. The analysis and findings from the collected data have shaped the initial template (see section 2.6 and 4.5) which had five themes in the final template which now consists of six central themes see table 4.11. Although the titling of the five original themes has been retained in the new template, however, the original sub-categories have evolved considerably in the new template. The five original themes were:1) Supply chain relationships 2) Transactional exchange 3) Competitive advantage 4) Social media use 5) Environment. The newly emerged and now the sixth theme is “SME’s organizational attributes”.

Table 4.8 Final template on the use of social media by SMEs

1. Supply chain relationships
I. Nature of relationships
II. Trust
2. Transactional exchanges
I. Power and control
3. Competitive advantage
I. Information sharing
4. Social Media Use
I. Perceived usefulness
II. Perceived ease of use
III. Poor infrastructure
IV. Security issues
5. Environment
I. Nature of the industry
II. Social factors
6. SMEs
I. Less formal structures
II. Lack of dedicated staff and resources
III. Lack of innovativeness

Source: Author

The final template has been further developed in (see section 6.3) in the next chapter. In the section that follows next, information regarding the themes in the template above is discussed.

4.7 Findings

4.7.1 Supply chain relationships

4.7.1.1 Nature of relationships

The type of relationships created with SMEs or non-SMEs (buyers) and their suppliers can be viewed in terms of their purchasing/sales volume (transactions) or by their close relationship (collaboration) in a triad. While the type of relationships created between SMEs or non-SMEs suppliers can be viewed in terms of rivalry (competition); by their close working relationship and by their level of collaboration and competition (coopetition) in a triad.

Of the 3 triads in phase 1 interviews, 2 triads had transactional buyer-supplier dyads (see table 5.2). Case A was selected by the researcher as 1) it is a representative of most the cases in the stage 1 interviews and 2) it exemplifies the relationship characteristics of the transactional dyad in this triad. Triad A comprised of a firm and two suppliers. The triad case was formed by a local subsidiary (Nigeria) of a global technology firm (Res A1); a local supplier of A1 offers specialized IT solutions (Res A2) and a local supplier of A1 offering IT solutions and software services to businesses and governmental organizations (Res A3). In the two (2) dyads (buyer-supplier) in case A, the relationship was characterized by the buyers having many tiers of suppliers; as such collaboration and information sharing were limited. The key buyer also pushed a particular service to minimize their profits. The individual interviews reveal that larger firms (buyers) as in this case, tend to lean towards a more transactional relationship approach with their suppliers which in no small extent contributes towards the formal nature of the buyer-supplier relationships and a large number of suppliers. An interviewee within Case A noted:

> *"it was supposed to be a relationship that would bring a wealth of experience… much cheaper rate to the customer*" (Res A1);
>
> "*Firm x has a lot number of suppliers*" (Res A2)
>
> "*With firm x, in particular, the relationship is very transactional*" (Res A3)

Simply put, some interviewees showed an opinion on the relevance of transactional exchange as a priority. On the other hand, of the 3 triads in phase 1 interviews, only 1 triad case (C) had a collaborative buyer-supplier relationship (see table 5.9). Triad case C was selected because: 1) it is a representative of a minority of the cases in the stage 1 interviews and 2) it exemplifies a collaborative dyad. Case C comprised of one buyer and two suppliers. The triad case was

formed by a local a fashion firm (Res C1); a local supplier of C1 provides materials and accessories (Res C2) and another local supplier of C1 offering specialized fashion hardware, materials, and accessories (Res C3). The dyad between suppliers in triad case C is characterized by few suppliers and informal relationships. The individual interviews indicate that the SMEs (buyers) as in this case tend to lean towards a more collaborative relationship (and sometimes a mixed approach) with their suppliers. This may largely contribute towards the informal (close and personal) nature of the SME buyer- (SME) supplier relationships. An interviewee within the case C commented:

> *"I would say it is cordial with both suppliers in question" (Res C1);*

> *"I would say we have a good relationship with firm x"* (Res C2)

> *"My relationship with firm x is mainly transactional and about the business, but we have a good relationship as well" (Res C3).*

The analysis indicates that SMEs in relationships with larger firms tend to have more formalized (relational) structures with larger firms. SMEs in relationships with other SME firms have less formal structures. This finding is supportive of the literature view that explains transactional exchange as fundamental basis governing B2B relationships (Heide and John 1992; Jap and Ganesan 2000; Grant, 2005; Klein and Rai, 2009; Lindgreen et al. 2012). This evidence is also supportive of the literature view that businesses are beginning to shift to collaborative relationships (Nesheim, 2001; Barratt, 2004a & 2004b; Talluri et al., 2006; Flynn et al., 2010). This finding is supportive of the literature view that the nature of relationships impacts on the firm's use or decision to use an innovation (Fichman, 2000; Edwards et al. 2005; Zhu et al., 2006)

4.7.1.2 Trust

RES F1 comments:

> *"Trust is the most important element of doing business with any firm".*

One of the typical comments that resurfaced from time to time was the matter of trust. The untrusting nature between buyers and suppliers is apparent in the interview. Res-A1 comments

"some suppliers feel that we (firm x) compete with them which creates a trust issue which is a major challenge for us."

The respondents had clear ideas of issues surrounding relationship management in supply chain management, which corresponds to RM and SCM literature. When asked: "what are the key challenges in your relationship with firm x and firm Y? Res-C1 comments:

"they lost my trust and I found another alternative supplier (Firm Z)."

Additionally, RES-C2 highlights the impact and the possible outcomes of trust in relationships:

"I guess it is also preferred to take care of potential issues around trust ..and not find ourselves on the outside knocking at the door and trying to get in".

See section 6.4.2 for further discussions on trust. The interviews reveal that it is not uncommon to engage suppliers in projects without a contractual agreement in Nigeria.

"In Nigeria, that is less important because people abuse contracts so there is only so much you can protect and there is only so much you can't protect".

There are also different attitudes towards binding agreements as well. The SMEs indicated they did not wish to invest time and resources in contractual agreement mainly if it optional or the order/project is not guaranteed. RES C3 comments:

"I don't have the time, manpower or resources for this (contracts)."

It can be deduced that buyers and suppliers of chains are willing to engage in relational exchanges when there is a return on investment (perceived benefits outweigh the incurred cost) due to the limited resources SMEs face.

4.7.2 Transactional exchanges

When asked: "how has this relationship –in your view- changed over time?", of the 3 triads in the stage 1 interviews, 2 triad cases retained their transactional forms by keeping all embedded dyadic relationships as transactional (see table 4.9). Triad case A was selected because 1) it is a representative of the majority of the cases in the stage 1 interview and 2) it explains the relationship characteristics of the majority transactional triads in this group. The

B2B relationship was developed and sustained for nearly ten years. In the buyer-supplier dyad, case A had a pool of suppliers, minimizing their profits (of the power firm) by pushing a particular service and as such collaboration did not occur. The majority of triads with large firms as the focal or power firm such as triad case A & B did not show significant changes as their embedded dyads had retained its dynamics without changing its transactional form.

Further details of the three triads in stage 1 is presented in table 4.10. In triads A & B the relationship description and types of three dyadic relationships did not change significantly over time. The dyad with the buyer and the supplier exhibited predominately transactional links; limited information sharing; formal structures; high use of contractual agreement and interactions generally via email. The dyad between suppliers exhibited competitive (sometimes a mixture of competitive and collaborative- co-opetition) relationships; simple structures; information hoarding and little contractual agreements. The other triads such as case B were similar to case A because their triadic relationship failed to exhibit any differences. However, the other triad in case C was different to case A as their triadic relationship had evolved (exhibited changes) since its inception. Please note that the best transactional representation triad A is highlighted, whereas best collaborative relationships representation is triad C as such Triads B, D, E and F are excluded to prevent repetition.

Table 4.9 Additional details of the transactional relationship triad A

Relationship description / Triad	Information sharing	Relationship structure	Interaction	Nature of exchange	Single sourced suppliers	Contractual Agreement	Core capabilities	Trust	Power & control	Problem-solving	Resource sharing
Initial buyer (A1) – supplier (A2) relationship dyad	Related to orders	Formal	Predominately via emails	Strictly transactional	Single supplier for a particular customer	Yes	The product, technology, and technical expertise	Little to none	Yes (exerted by larger buying firm)	None	None
Current buyer (A1) – supplier (A2) relationship dyad	Related to orders	Formal	Predominately via emails	Strictly transactional	Single supplier for a particular customer	Yes	The product, technology, and technical expertise	Little to none	Yes (exerted by the larger buying firm)	None	None
Initial buyer (A1) – supplier (A3) relationship dyad	Related to orders	Formal	Predominately via emails	Strictly transactional	Multiple sourced supplier	Yes	Technical expertise	Little to none	Yes (exerted by the larger buying firm)	None	None
Current buyer (A1) – supplier (A3) relationship dyad	Related to orders	Formal	Predominately via emails	Strictly transactional	Multiple sourced supplier	Yes	Technical expertise	Little to none	Yes (exerted by the larger buying firm)	None	None
Initial supplier (A2) – supplier (A3) relationship dyad	Information hoarding	Informal	Predominately via emails	Competitive and/or collaborative	None	None	Technical	Little to none	Yes (exerted by the larger buying firm)	None	None
Current supplier (A2) – supplier (A3) relationship	Information hoarding	Informal	Predominately via emails	Strictly transactional	None	None	Technical	Little to none	Yes (exerted by the larger buying firm)	None	None

The dyadic relationships showed no changes since its inception and remain transactional in the long term (over five years).

Source: Author

However, in contrast to triads A & B, the buyer and the suppliers in triad C started with transactional dyads (buyer-supplier) as exchanges were strictly transactional and the dyads lacked a relationship history. Triad C is a typical case that can illustrate the relationship characteristics in supply chain relationship that shifted from transactional to collaborative relationships and subsequently shifted from inter-organizational to interpersonal relationships. Triad C was formed by an SME fashion firm (the buyer-C1); a local fashion accessory supplying firm (the supplier- C2); a fashion accessory and raw material supplying firm (the second supplier-C3). The triadic relationship had been in existence for over seven years. The triad consists of three dyads. The two buyer-supplier dyads began as a transactional exchange (see table 5.4).

Initially, the buyer (C1) - supplier (C3) dyad relations were transactional (relating most to order placing/confirmation). As the dyad was fundamentally transactional initially, they shared no relationship history, no information sharing and found no need to develop a close dyad. The type of dyad between them changed from a transactional to a collaborative over a five-year period. Res C3 began to offer market insights; shared information and solved problems with Res C1. Buyer C1 expanded its business to other local markets, in this situation, buyer C1 decided to source and selected supplier – C2 for two reasons. 1) The supplier was more significant in size than the buyer and had more financial resources, they were able to offer credit the buyer C1 which is attractive but overall charged higher prices for materials 2) supplier C2 demonstrated they could offer better prices than competitors. In this situation, to save costs, the buyer C1 made the decision to source more materials from supplier C2. Subsequently, a relationship that started off as a transaction buyer-suppler dyad evolved into a closer, personal and collaborative dyad. In contrast to triad A, the buyer-supplier dyad had formed a collaborative relationship as they had a positive relationship (history) and strategic partnership.

Further details of the last triad in stage 1 is presented in table 4.10. In triad case C, the relationship description and types of three dyadic relationships evolved over time. The dyad with the buyer and the supplier generally exhibited transactional links initially with limited information sharing, formal structures and generally interacted via telephone or face to face meetings. The buyer-supplier dyad changed over a five-year period. They began sharing information on products, market insights, and expertise, solve problems jointly, joint decision-making, developed less formal structures and interactions via less formal media like social media. On the other hand, the relationship between suppliers did not change as the buyer wanted to keep sourcing costs from the supplier down and quality high from the other supplier.

The dyad between suppliers exhibited a competitive relationship and would exhibit characteristics like limited interaction, information hoarding, and formal relationship structures.

When asked: “how has this relationship –, in your view- changed over time? Why or Why not?”, the individual interviews of all triad indicate the reasons for business continuity as 1) transactional exchange; 2) Personal relationship; 3) Resource and capability (expertise). Interviewees indicated that they continued doing business in the embedded dyads due to personal relationships at various levels, capabilities, and resources in the chains. As Res A2 summaries:

> *“Firm x would probably determine which partner to use based on personal relationships or expertise or on both.”*

Res A1 adds:

> *“if we get our own resources to do a particular part of the project, it is going to be very expensive, but if you get a resource from the supplying (partner) organization it turns out to be cheaper for us.”*

It seems logical to deduce that the potential for increased transactional exchange is an essential motivation for all triads. However, personal acquaintances, resource and capabilities are important factors for collaboration with each other.

Regarding transactions and structure, there seemed to be a difference between SMEs and larger firms. The majority of the large firm participants interviewed have formalised transactional exchange activities such as 30-60 days payment plans. The majority of the SMEs participants indicated that they had less formalized transactional exchange activities, for example, one employee may be responsible for transactional exchanges and other roles within the SME firm.

One plausible explanation might be that transaction exchange function is more structured in a large firm and possibly managed by department(s) compared with SMEs, which have limited resources and one staff may have multiple duties within the firm. As a result, SMEs seemed to have more flat structures compare with large firms with more centralized ones. This finding also implies that the firm size may influence the level of structure and specialization.

Table 4.10 Additional details of the collaborative relationship triad C

Relationship description / Triad Cases	Information sharing	Relationship structure	Interaction	exchange	Single sourced suppliers	contractual agreement	Core capabilities	Trust	Power & control	Problem-solving	Resource sharing
Initial buyer (C1) – supplier (C2) relationship dyad	Related to orders	Formal	Face-to-face, telephone, and email	Transactional	Single supplier	None	Cost (price)	Little to none	No	None	None
Current buyer (C1) – supplier (C2) relationship dyad	Information sharing	Informal	Predominately via social media, face-to-face, and telephone	Transactional and relational	Two sourced suppliers	None	Cost (Price)	Better Trust	NO	Yes	None
Initial buyer (C1) – supplier (C3) relationship dyad	Related to orders	Formal	Predominately via emails, telephones and face-to-face meetings	Transactional	Single supplier	None	Market and product insight	Little to none	Yes (exerted by supplying-C3)	None	None
Current buyer (C1) – supplier (C3) relationship dyad	Information sharing	Informal	Predominately via social media, face-to-face and telephone	Transactional and relational	Two sourced suppliers	None	Market and product insight	Better trust	Yes (exerted by supplying-C3)	Yes	None
Initial supplier (C2) – supplier (C3) relationship dyad	Information hoarding	Formal	Predominately via emails, telephone	Competitive	NA	None	Fashion supplies	Little to none	Yes (exerted by supplying-C3)	None	None
Current supplier (C2) – supplier (C3) relationship	Information hoarding	Informal	Rare interactions but occasionally via physical (face to face) meetings	Strictly transactional	NA	None	Fashion supplies	Little to none	Yes (exerted by supplying-C3)	None	None

The dyadic relationships showed changes (over a five-year period).

There seemed to be a similarity between SMEs and larger firms. In the sense that participants both agreed that role of transactional exchanges influences the nature of relationships. Res F 3 commented:

> *"Some larger firms I have dealt with are strictly about the transaction; they don't want any form of relationship in such a case, information sharing is not particularly welcomed."*

SMEs in this study placed more emphasis on the relational aspect than large organizations which placed more emphasis on perceived transactional volumes.

4.7.2.1 Power and control

When asked: "In your own view, what is the influence (if any) of your firm on the supplier–supplier relationship and vice versa? Or In your own view, what is the influence (if any) of your firm on the buyer-supplier relationship and vice versa", the interviews indicate that non-SME buyers (like Res A1 & C1) showed minimum influence from their supplier as low transactions, resource and capabilities existed. Yet at the same time, SME suppliers (in triads A&B) indicated strong influences from the non-SME buyers in terms of their internal operations and more formal structures to ensure business continuity. Examples of influences including change of internal (administrative and accounting) processes to meet Res A1 organizational systems, implementing new technologies and employing experts to improve their capabilities.

Res A2 comments;

> *"their payment cycle is too long, we smaller companies depend on cash flow but have to comply."*

Interviews also indicated that the non-SME buyer in triad A had provided assistance and training to the suppliers to improve their information sharing, structure, operation, and subsequently improve transactions. Suppliers (in triads A&B) also kept up-to-date with the buyer's (Res A1) strategic direction and planned accordingly. Interestingly, a supplier (Res A2) also commented that the Res A1 has a strong influence on the B2B clients' due to their reputation and business size. "

> *"The benefit of working with bigger companies is that they have got more muscle in reach bigger projects"* (Res A2).

The message was also echoed in other interviews with Res B2 as commented:

> *"as a small company when I tell potential clients I supply firm x it adds to my integrity and carries far more weight."*

It can be deduced that larger firms have a significant influence on the SME suppliers' due to the size of the business. Suppliers often take up the role of the larger firm's representative. It is not surprising that the perceived influence between buyer and supplier may be similar to the perceived influence between suppliers though to a much lower extent. Typical changes to suppliers include complying with new policies as well as demonstrating to the buyer the capabilities of accomplishing the project successfully. The inter-organizational influence is apparent in an embedded dyad is evident from the interviews.

The individual interviews indicate SME suppliers influence buyer's operations and can influence the product/service delivery and exception. Interviews of the all SME triad (C) indicate much influence with the SME buyer, pointing out years of experience, the understanding of each parties' operation (via relationship history) and the existent of personal relationships. Both suppliers identified themselves as the main supplier to Res C1. In this case, Res C3 had expert knowledge of different situations. As a result, SME buyer was prompted to change orders to accommodate the supplier's input, constraints and demands.

> *"The first time I met firm x (buyer), she was new to the business and did not quite know what would fit, so we helped each other out" (RES C2)*

> *Res C1 had this to say:*

> *"I have learnt a lot from firm y and they have influenced me in so many areas".*

However, with the other supplier (Res C3) where expert knowledge is limited, the SME supplier created a robust, friendly environment with the SME buyer. As Res C1 points out

> *"I really like him so I do business with him."*

The suppliers here did not only provide materials but also collaborated with the buyer to develop more innovative products to suit the buyer's demand/needs. Fashion industries are creative, (more) visual, dynamic and sometimes complex in nature. SCM strategies

such as the use of innovative technologies and relationship management require more interactions and collaborations between supply chain members. The RES C3 comments:

> *"I personally like speaking to people face to face or on the telephone. But this environment is so busy and that way social media comes in."*

The focal firms not only manage the fashion projects but they work together with B2B customers and suppliers as well. The suppliers not only supply materials and full fill orders according to their specifications but also collaborate with the buyer to develop new and innovative products to suit the requirement of the project.

Findings from this study indicate the all forms of power (e.g. reward power, coercive power, legitimate power, information power, expert power) with the exclusion of referent power were used which had an influence on the use of social media in supply chains. This finding is supportive of studies like Ku et al., (2010); Nygaard and Biong (2010); Oke et al., (2008); Azad and Faraj (2011). Ku et al., (2010) that found most forms of power had direct effects on the adoption intention of electronic supply chain management system in dyadic supply chain relationships. Other studies like Nygaard and Biong (2010) found that all forms of social power excluding reward and legitimate power had significant effects on corporate ethical values. We found that social power had a significant influence on social media use. This is in line with studies like Oke et al., (2008) found that social power had a significant effect on the project outcomes such as design performance and development time. Azad and Faraj (2011) also found that social power has a substantial impact on various business practices particularly IT projects. Studies by Berthon et al. (2012) and Kaplan and Haenlein (2010) found social power played a crucial role in whistleblowing the unethical and unsustainable practices of firms.

4.7.3 Competitive advantage

4.7.3.1 Information sharing

The findings from individual interviews reveal that in general there is little too limited information sharing in case A. Res A 1 commented,

"it is supposed to be a relationship that would bring a wealth of information and experience worldwide…however, our partners feel we compete with them in the local space".

Within case A, information sharing with the two SME suppliers was often cited as problematic. It is worth noting that both suppliers often have minimal interaction with each other except during involvement in a project. Suppliers may become involved in a project in two ways. 1. via the buyer who selects a particular supplier and/or 2. Via the client who directly appoints the supplier. Res A2 comments

"In many cases the supplier could end up getting a strategic contract to sell directly to the customer…. Firm X (buyer) would determine which partner to use."

Should the supplier misunderstand the client/project requirement or work order, it may lead to delays and the inability to source for an adequate resource for the project. When the level of interaction declines, the buyer/client performance and competitiveness are also affected and vice versa. This is probably due to the nature of the relationship in - in the sense that supply chains members are impacted by the actions of other and the competitive nature of the (industry) environment. This is echoed in a comment by RESA1:

"The projects are very contractual… we are very careful around their image, reputation, law suites so there are many processes creating bottlenecks.

Findings suggest that in case A, the buyer would most times send email intensively for a period. For example, RES A1 says:

"there were many times we would have to keep records and refer back to the emails or confirm some information"

However, often times this does not guarantee high levels of interactions with the supplier nor does it translate to better collaborative relationships with the suppliers. Suppliers reveal that pushing products, paying lip service and underlying trust issues may be at the heart of frustrations with and between members of the chain. For example, Res A3 had these comments about the excessive use of email a system of records:

"if you are in a structure that the relationship is transactional you are not likely to use collaborative platforms to interact. Its strategy and trust but more strategy than trust."

Subsequently, the type of relationships with buyers and between suppliers can be an influencer as well. As such, the level of interaction depends mainly on the type of relationship as well. On the other hand, case study 3 indicates that information sharing seemed common. Res C2 commented:

"I share information with firm x (buyer) and she is willing to exchange information that can be very helpful to us both".

However, Res C1 also cautioned:

"There is an old adage that information is secret that means it is not everyone you can share your information or disclose secrets too".

In case C, their B2B relationship had evolved over the years, the buyer or suppliers could easily be reached via phone or social media. By doing this, information may be requested (with immediate responses provided), easily clarified or reconfirmed thereby reducing confusion, misunderstanding, issues, and delays.

Findings suggest that the use of social media in general in some cases can lead to information overload. For example, Res C1 comments:

"sometimes it (social media) is too much information."

This finding is supportive of studies by Fishcer and Reuber (2011). They found that the use of social media such as Twitter by SMEs led to overwhelming information which was distracting to the SMEs. Interestingly, a number of interviewees stressed the benefits of social media and the importance of monitoring) social media use as means of gaining information as well as controlling information. For example, Res F1 commented,

"I like Twitter to provide updates to my clients and suppliers".

4.7.4 Social media use

4.7.4.1 Perceived usefulness

Findings in the analysis revealed that the use of social media with and between supply chains was a relatively new concept amongst SMEs and their participating firms as many SMEs had not given much thought to social media from a supply chain context. Respondents did not incorporate the relational nature of social media especially where trust is low, nor did they consider the role and importance of information sharing and collaboration for relationship development and sustenance (maintenance). However, SMEs, in general, found more and evolving usefulness to social media. Res C1 commented, "*I use social media a lot personally, we have used it for marketing, sales, for seeing what my competitors*."

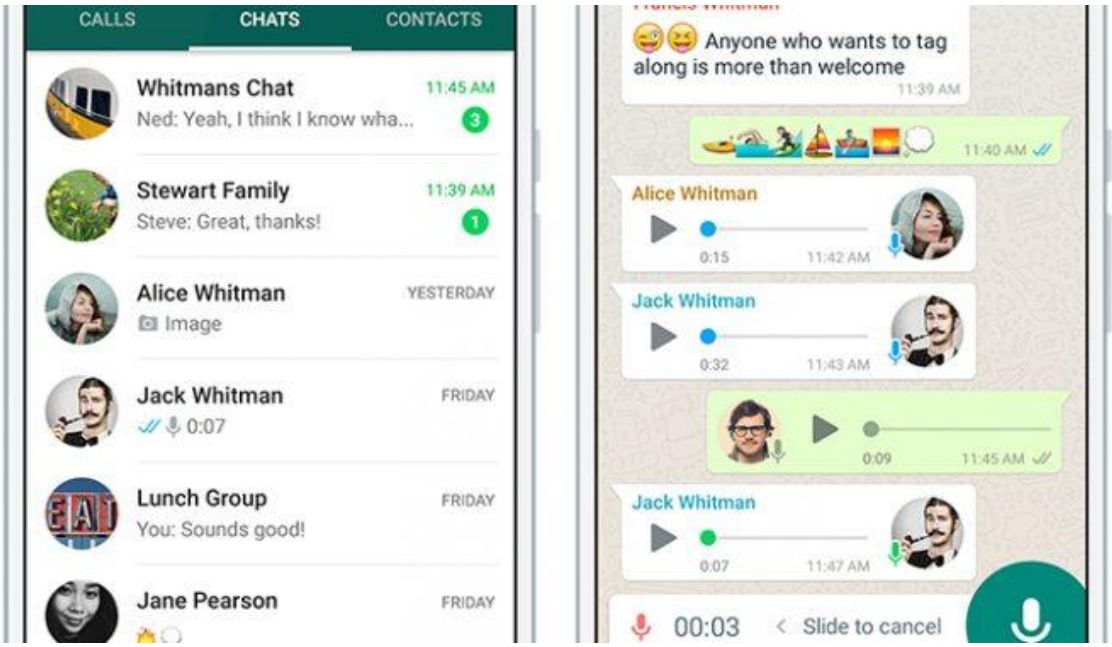
The use of social media by the large firm in the cases in this study individually focused on marketing, talent hunting and B2C relationships. SMEs in triads collectively used social media as a surveillance tool to monitor what their competitor was doing, information exchange, interactions and collaborations on projects see vignette for further discussions. It is worth noting that the definitions and types of social media remain a highly debated topic (see section 2.3 in chapter 2). For example, some may argue that WhatsApp does not fit into the social media definition. Others may argue that considering the rapid evolution of social media applications, the term "social media" can be loosely applied to cover a range of tools for social interactions. Although these debates are important, however, given the scope of this study these debates will not be further explored. Next, let's consider brief descriptions of the use of WhatsApp within the case organizations.

Vignette #1: WhatsApp for information sharing

Res C1 is the business owner of a SME firm which specializes in making couture handbags, shoes and scarfs. Her use of WhatsApp in supply chain was influenced by using WhatsApp in her private life. Her WhatsApp use usually tends to overlap between business and personal use. WhatsApp is linked to her private mobile number making her personally responsible for the use of WhatsApp. During preparations for a fashion exhibition, she sent her ideas in text and image format to Res C2 (the business owner of an SME firm which supplies fashion accessories) using WhatsApp. Using text and images via WhatsApp, Res C2 responded with feedback and advice on the type and best fit material, availability, price and material options. Res C1 also sent a message to Res C3 (the business owner of an SME firm which supplies fashion accessories) to

check for availability of the type of material sought and price. Res C3 responded with availability and at a price quote cheaper than what was provided by Res C2. Fig 7 is an example of a WhatsApp interface. It is a generic example as participants WhatsApp content were private and confidential.

Figure 4.1: showing a generic example of WhatsApp



Source: The Internet

Vignette # 2: WhatsApp for direct B2B interaction

Res F1, the business owner of an SME fashion company prefers interacting with its suppliers via WhatsApp especially when she is out on the field. She sent a message using WhatsApp to Res F2 (a fashion supplier). She gets a speedy response back but cannot respond immediately. She responds after a meeting via WhatsApp voice call. She likes using WhatsApp platform because informal chat, audio and images can be sent, the request can be followed up, and updates shared with Res F2 in real time using the platform. She enjoys the call ID feature in WhatsApp calls as callers can be screened unlike traditional landline calls. She finds WhatsApp cost-effective as calls are free and require no elaborate IT infrastructure except a smartphone and mobile connectivity. She is also able to send a response at a convenient time with little intrusion. She requires little or no training to use WhatsApp. The fast and easy features in WhatsApp has helped Res F1 to stay connected on the go and better interact with its supply chain members.

Vignette 3: WhatsApp for Improving B2B relationships

Res C3 likes interacting directly with buyer Res C1 using WhatsApp. He has direct access to Res C1 and other supply chain members which helps facilitate better B2B relationships. Nielsen (2018) suggests that users are more inclined to do business with those they interact with directly. WhatsApp affords him the opportunity to make inquires, gain insights, respond and offer feedback without being intrusive, sending an email or picking up a call. Sometimes, he like to have confirmation from his buyer in real time. He finds clarifying with his buyer keeps them both happy and satisfied, which in turn translates to repeat business and room for continuous improvement. He views WhatsApp as a tool for keeping on top of issues He can also create a group conversation with supply chain members where they can discuss pending issues and how they can improve. These features in WhatsApp have helped Res C3 improve pre-existing B2B relationships with Res C1 and other supply chain members.

Participants in this study describe how social media was their natural point of competitive analysis. Res F1 explained how competitors Facebook page was continually monitored to keep on top of trends, stack up against their competitors and acquire information on their latest business strategies. For example, the comments, likes and dislike provides a great opportunity to gather information that can improve their service

4.7.4.2 Speedy interactions

Findings of the study suggest that the degree of interactions seemed to correspond with the degree of personal relationships or business transactions (or both) between the supply chain members. The level of interaction was one of the issues that resurfaced from time to time. Interaction is apparent in supply chains using relational approach (relationship management) as described in this quote by Res C2:

> *"I interact with firm x (buyer) via social media. Social media is now commonly used, so I can send a Whatsapp message, Facebook and BB".*

BB means blackberry pin. In a transactional setting, where relationships are formalized, and operational processes are more structured between parties of supply chains. The buyer would interact with key suppliers ahead of the start of the project and commit the supplier. These structured forms seem to cater more to collective groups (rather than one-to-one interactions) and less established suppliers who are able to gain associations with established firms. Res A1:

"We use emails a lot"

Drawing upon the established and reputable firms the supplier is able to access markets that they would typically not have access to the buyer. In addition, by drawing upon local suppliers' experience, the buyer can identify potential and future opportunities and threats. The buyer believed that formalized interactions and structures could facilitate better information sharing and innovative solutions between parties of a supply chain. There are disadvantages as commented by RES A1:

"we tend to be not agile enough to meet the suppliers or customers need".

Some examples of formalized interactions include monthly meetings and weekly conference calls even with formal agreements and purchasing order in place. However, in case study 3, even though there were no formal contracts, orders were placed informally. In other words, interactions with buyers and between suppliers were generally discussed, and interactions tend to be informal. Face-to-face interaction was the most preferred form of communication with the buyer. Similar interactions also occurred between suppliers (case study 1), but limited to a degree of competitive or collaborative (coopetition) strategy adopted. The effect that the different (B2B relational) approaches have on the level of interaction, collaboration and power is apparent, particularly between traditional transactional and collaborative relationships. Further discussions are presented in next chapter.

4.7.5 Environment

4.7.5.1 Nature of industry

The type of relationships created between suppliers can be described as competitive, cooperative and /or both a term is known as "Co-opetition" (when competitors come together to collaborate). The individual interviews indicate that supplier-supplier dyads with larger firms (buyer) as their focal or power firm tend to lean towards a competitive approach. At first glance, the larger firm Res A1 appeared to advocate for greater collaboration while keeping the supplier (Res A2) - supplier (Res A3) at arm's length. For example, Triad A points out:

"Well, we collaborated in some areas and competed in other areas" (Res A2).

On the other hand, Res A3 point out that

> *"there are many categories of suppliers (to Firm X)., therefore, by my definition, it is largely adversarial because we compete for the same opportunities".*

The individual interviews indicated that supplier-supplier dyads with non-SMEs (buyer) as the focal or power firm as in the case of triad C tend to lean towards a more competitive relationship approach with their suppliers which in no small extent contributes towards the limited information sharing and limited collaboration. For example, Res C3 commented: "Well, I see firm Y as a competitor…, I will say we are just ok with firm Y, not too good and not too bad". Similarly, Res C2 adds "Firm Z is definitely my competitor. Table 5.8 presents a summary of types of relationships embedded in all dyads in each triad.

This evidence is supportive of the literature view that explains businesses (suppliers) compete, collaborative or both (co-opetition) as well (Klein et al., 2007; Choi et al., 2002; Choi and Wu, 2005).

Table 4.11 Summary of Dyadic Relationships in Triads

Case	Industry	Buyer-supplier dyad	Buyer-supplier (2) dyad	Supplier–supplier dyad
A1	Hi Tech	Transactional	Transactional	Co-opetition
A2	Hi Tech	Transactional	Transactional	Co-opetition
A3	Hi Tech	Transactional	Transactional	Co-opetition
B1	Low Tech	Transactional	Transactional	Competitive
B2	Low Tech	Transactional	Transactional	Competitive
B3	Low Tech	Transactional	Transactional	Competitive
C1	Creative	Changed from transactional to collaborative	Changed from transactional to collaborative	Competitive
C2	Creative	Changed from transactional to collaborative	Changed from transactional to collaborative	Competitive
C3	Creative	Changed from transactional to collaborative	Changed from transactional to collaborative	Competitive

Source: Author

4.7.5.2 Location

We found no evidence to support the SMEs location can positively influence the use of social media. This finding is supportive of studies like Wamba and Cater (2013) that found that firm characteristics like location did not have a significant impact on social media use. This is contrary to the view in studies by Kelley and Helper (1999) and Harland et al. (2007) which found the firm's geographical location tend to influence IT innovation positively. We found that the SMEs innovativeness (on the contrary) or lack of might influence the use of social media.

4.7.6 SME attributions

4.7.6.1 Formal and informal structures

When asked: "How does your firm currently manage the relationships between your firm and Firm X; your firm and Firm Y; and between Firm X and Firm Y"? of the 3 triads of the Nigerian interviews, only triad case A had a formal structure and dedicated staff in managing relationships in the triad. Triad case B had a formal structure but no dedicated staff in managing relationships while triad case C had an informal structure and no dedicated staff in managing relationships. Triad A was selected in this section because

it is a representative of a triad with formal structures while Triad B was selected to be described as it exemplifies a triad with informal structures.

Res A1 had been employing relational approaches for over three decades. Res A1 continues putting a strong emphasis on facilitating collaboration between suppliers on project bids. The dedicated staff for relationship management tends to serve as coaches to tender bids, set up contract agreements to foster more business. In triad A, the level of transactional exchanges and the complexity of supply chain were found to be closely related to the extent to which relationship management structures were developed in non-SMEs (or their supply chains). It was evident that larger firms with high sale/purchasing volumes and those with more complex supply chain have developed a formal structure for relationship management as compared to some SMEs firms (triad C) with simple supply chains, basic operational needs and relatively lower transactional spend. It is expected that where such RM structures are found the capabilities in relationship management are well developed and useful. Res C2 commented:

“I think we have an account manager (dedicated staff from C1).”

Res C1 adds:
“We are very careful about their image, reputation, lawsuits and are careful about what has entered a contract with the customer and a supplier.”

For the larger firm in triad A with formal structure relationship management still appears to be a major hurdle as respondent A1 puts it:

“the process of creating a contract within our firm takes a long time.

On the other hand, relationship management in triad C was frequently described in terms of resolving disagreements. The interviewees indicated that conflicts were resolved informally by an open exchange of information (direct confrontation) to reach an agreeable outcome. This finding is supportive of the literature view that SMEs tend to have less formalized structures and control systems compared to their larger counterparts (Vaaland and Heide, 2007; Towers and Burnes, 2008). This evidence is also supportive of the literature view that SMEs are often more short-term oriented than their larger counterpart. The implication is that SMEs may direct their efforts into using social media in supply chain short-term and their long-term efforts might often be constrained. This finding is also supportive of the literature view that SMEs have less

formal and flatter structures than larger firms (Angela, 2005; Mason, 1997; MacGregor, 2004).

4.7.6.2 Limited resources and lack of dedicated staff

The interviews reveal buyers had developed some way of selecting suppliers and may choose out of the selection of suppliers, which one they wanted to work with. However, most non-SME buyers (in case of study 1&2) admitted to only a slight level of dependence on their suppliers.

On the other hand, SME buyer (in case study 3) admitted to a high level of dependence on the supplier (res C3) at the beginning of the relationship. For example, imposed restrictions on raw materials, lack of resources, limited information, and a limited number of suppliers with the capability to source for specialized products were listed as reasons for high dependence on suppliers initially.

Informant (res A1) indicates expertise/capabilities was an important criterion in selection. As highlighted earlier by the interviewee (res A2), the buyer enables the suppliers (partners) to access bigger project that the suppliers may not necessarily have access to. In the IT services industry, the buyer is often the owner of the project and the source of revenue. Such factors can leave the local suppliers highly dependent on the buyer for business transactions. On the other hand, the supplier may have a strategic relationship with the B2B client and bring the buyer into the project. For example, the project may be situated at a client's location, the client may request specifically for a supplier in particular. In this case, the buyer must work with the supplier and would not have the power to reintroduce their chosen supplier. As such, there may be a shift in dependence towards the supplier. The findings have also reflected issues of trust which will be discussed later in this chapter.

Interviewees indicate one of the significant problems with suppliers is getting the work order/requirement/project right and on time, which not only constrains the project but also constrains the B2B relationship and the possibility of future transactions. On the one hand, it is critical for the buyer to monitor the project in pursuit of its agenda. On the other hand, it is also critical for the supplier to draw experience from live projects as well as developing their own credibility.

Account managers are dedicated staff with hard and soft skills in the frontline of relationship governance whose primary role and responsibilities include sales, business

relationship development, problem-solving, SCM and adapting to the dynamic environment. This not only affects the ability to build and sustain relationships but to influence B2B relationships in supply chains as well. However, in the majority of cases where SMEs were in relationships with larger firms but their interactions were sparse, a lot of distrust issues were 'snowballing' and beginning to emerge. Many conflicts could not be handled by the account manager and were not escalated to more senior managers until it was significant, hence necessitating contract reviews which placed more strain on their already strained relationships. Most cases placed much emphasis on the RM general focuses on transactional exchanges (time and quality) that occurred often ignoring supply chain interaction.

4.7.6.3 Innovativeness

This finding is supportive of the literature view that SMEs have limited financial resources than their larger counterparts which can affect the firm's innovativeness and ability to adopt IT (Angela, 2005). Other studies like Cameron and Clarke 1996; Caldeira and Ward, 2002) are also in support of this view. On the other hand, this finding is in contrast with studies like Dyer et al. (2001) that found firms with dedicated alliance management function tend to do better than those without consistently. We argue that recognised account/social media managers can attempt to firefight or sustain relationships, no matter how skilled they are, it still can't conceal issues like distrust with and between supply chains.

4.8 Chapter summary

This chapter presented the findings of the template analysis of the data. Template analysis was useful in providing a set of procedures that guided the analysis of the rich and qualitative data in the study. This study aimed to provide better understanding and insights into the use of social media in supply chains by SMEs. The emerging findings indicate that the use of social media in supply chain SMEs is influenced by six main factors which are the nature of their relationship, nature of transactional exchanges, competitive advantage, social media attributes, the business environment which they operate in and the attributes of SMEs such as the SMEs level of innovativeness. In the chapter that follows next, further discussions of findings are presented.

Chapter 5 DISCUSSIONS

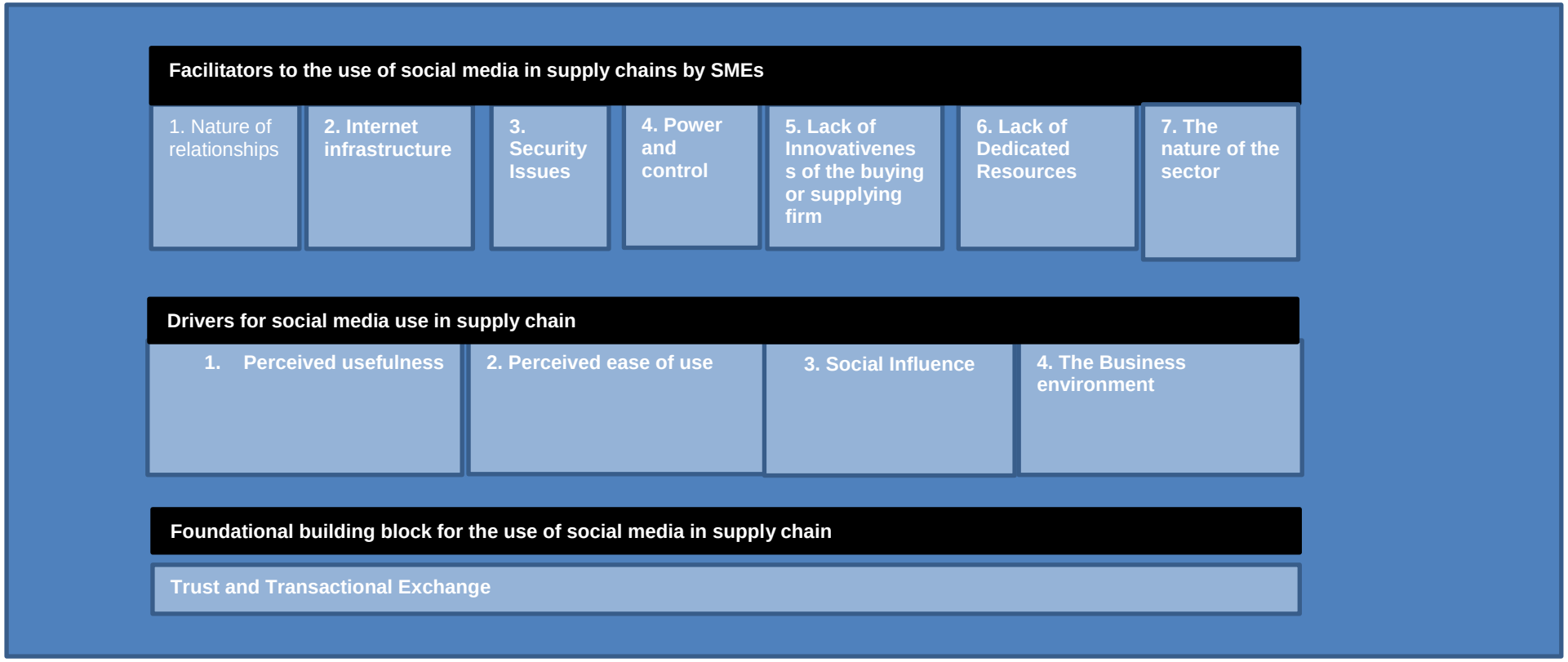
5.1 Introduction

This chapter focuses on the how extent literature line up or contrast with findings in this thesis. Following this introductory section, the chapter is organized as follows: section 5.2 presents the use of social media of findings; section 5.3 discusses the drivers for social media use in supply chain; section 5.4 explains the facilitators or constraints in the use of social media; section 5.5 discusses on how does social media use by SMEs affect relationships with and between supply chains; section 5.6 presents the discussion of findings and finally ends with a conclusion.

5.2 Findings on the use of social media

Social media is becoming recognized as being a potential technological tool for building and maintaining collaborative relationships (Heller Baird and Parasnis, 2011; Ang, 2011; Briones et al., 2011; Trainor et al., 2014). Focusing on a narrow field of SME research, a few studies have focused on the influence of social media use on SME relationships (Gallaugher and Ransbotham, 2010; Heller Baird and Parasnis, 2011; Kim and Ko, 2010). However, one major problem with these past research is the practice of relying mainly on a broad marketing agenda (for larger firms) to a narrowly defined SME context. Given that SME operating in supply chains are exposed to several environmental and managerial challenges often not apparent to larger firms, one might argue that the use of social media by SMEs may not be the same as for their larger counterparts. This study focuses on the use of social media in supply chains by SMEs. It is argued that SMEs are relational oriented, as such collaborative relationships with SME firms might enable the sharing of useful information which may reduce the bull-whip effect, improve information sharing, lead to better collaborative relationships and eventually, greater competitive advantage. Therefore, this study ensures that only firms in triadic relationships with at least one SME is used to explore the influence of social media on B2B relationships. In drawing insights from gaps in literature the research aim and question was formulated. The findings of this study are summarised in figure 5.1. Figure 5.1 captures the factors at the multiple layers/levels of influence of SME relationships and their use of social media in supply chains. It should be read starting from the bottom.

Figure 5.1 The use of social media in supply chains by SMEs



Source: Author

5.2.1 The foundational building block for the use of social media

It can also be argued that, perhaps, the transactional exchange is a basic but fundamental requirement for supply chain firms and trust is more relevant for collaborative relationships and transactional exchanges (Zaheer and Venkatraman, 1995; Dyer and Chu, 2003; Chiles and McMackin, 1996; Rousseau et al., 1998) Kwon and Suh, 2004). Trust is an issue that most SCM scholars don't associate in relationships between suppliers of a chain. Yet, SCM scholars are more concerned with trust between buyers and supplier. This begs the question: How do suppliers in the same chain with closely related products trust each other particularly when coopetition occurs. The rationale here is one of three 1). the presence of trust enables and facilitates transactions and provide value that can be beneficial to all parties 2). The absence of trust impedes transactional exchange and the value created will not be beneficial to all parties. 3). the transaction does not require trust if iron-clad contracts are in place. However, many of the SMEs in this study did not have the resources to make individual contracts per transaction or project. In general, one implication is that suppliers that display integrity, honesty or benevolence have a competitive advantage over traditional ones.

It can be seen that trust and transactional exchanges are foundational elements for the collaborative relationships with SMEs and subsequent social media use in their supply chains. This research contributes to the SCM literature by providing valuable insights which reveal that not only is trust an essential ingredient for better relationships and increased social media use in supply chains by SMEs, trust also abets transactional exchanges as well. Thus, this study gives useful and valuable information into the foundational factors for better relationships and social media use in supply chains by SMEs. In particular, extant research findings suggest trust is the crucial ingredient in supply chain relationships.

Findings from this study support as well as enhance the proposition that from an SME standpoint, both trust and transactional exchanges are foundational elements that influence buyer-supplier relationships, supplier-supplier relationships, and social media use in the supply chain. This finding is supported in studies by Williamson, (1993); Rousseau et al. (1998); and Puusa ve Tolvanen, (2006). It highlights the need to explore the use of social media in supply chains further as it pertains to SMEs in triadic relationships with other SMEs and larger firms. This begs the question- Is the triad unit of analysis that important? This is a crucial question as many scholars (e.g. Dubois, 2009; Choi & Wu, 2009a & 2009b) have suggested that the smallest unit of analysis in

supply chains are triads, not dyads. This study is also suggesting that indeed triads are essential units of analysis specifically to better explore direct and indirect influences in supply chains which in-turns provided multiple perspectives. For example, the findings of this study when considered within a broad triad perspective can be taken to mean that cases with distrust and low transactional exchanges had limited use of social media by SMEs triad. However, these findings would have been missed if viewed from a single or narrower (dyadic) perspective. Perhaps, a more holistic approach to SME research is required considering how SMEs can be affected by multiple level factors and each layer may have a direct or indirect influence on them.

Trust is a critical element in the use of social media. There appears to be a consensus that trust is critical as it can facilitate collaborative behaviour and improve relationships by improving conflict resolution in times of conflicts (Smeltzer, 1997). The trust theme is consistent with the views that a successful relationship management strategy is dominated by interactions that, when implemented, may result in a long-term relationship with the supply chain participants (Gronroos, 2004; Lambert et al., 2004: Ferrin et al., 2006; Markley and Davis, 2007; Nishat Faisal, 2010; Grönroos, 2011). In the same context, Kaplan and Haenlein (2010) suggest that businesses should interact with social media openly, transparently and converse with their stakeholders.

Where there appeared to be trust issues, social media usage was limited to none and more formal tools like emails and spreadsheets were used. There were significant differences in the transactional practices between SMEs and large firms (Ramsey 2001; Wagner et al., 2003; Quayle, 2003; Bhagwat & Sharma, 2007; Vaaland & Heide, 2007; Sharma et al., 2008; Paik et al., 2009).

Markley and Davis (2007) assert that supply chain interaction is a necessary prerequisite of trust. Similarly, Nishat Faisal (2010 p 512) conclude that sincere interaction is crucial for developing trust, because “to create a sustainable competitive advantage, it is recognized that long-term and highly collaborative win-win ways of working which are normally based on trust and transparency - have to be created between all participants in the supply chain.”

Simply put, to better explore the use of social media by SMEs researchers need to take proper account of the relationship triads to ensure that the multi-level factors and influences have been thoroughly explored which will otherwise be unnoticed using dyads.

5.3 Drivers for social media use in supply chain by SMEs

For many SMEs (such as in this study) the foundational phase (trust and transactional exchange) required to support social media use in supply chains (see Figure 6.1) is often skipped or not fully developed. SMEs in this study often used social media in marketing and/or in the personal lives of their SME personnel. Within the business context, they were sometimes influenced to use social media by an influential member of the supply chain. This member could either be a buyer or a supplier. Upwards in the next phase of Figure 6.1 are the drivers (facilitating factors) for social media use in supply chains. The drivers include the perception of usefulness, perceived ease of use, social factors and the nature of the environment (like the industry sector, competitors and technologically savvy end users). The last phase (which is illustrated at the top of Figure 6.1) describes the factors that might constrain the use of social media in supply chains by SMEs. It is well established in this study that trust and transactional exchange are at the root of the interaction between social media use and B2B relationships. Factors like the nature of relationships, poor internet infrastructure, privacy and security issues, power and control, lack of innovativeness, lack of a dedicated staff and the nature of the sector serve as barriers for the interaction between social media use and B2B relationships.

The use of social media in supply chain implies that SMEs are affected by more factors (on multiple levels than larger firms). The non-use of social media in supply chains particularly in SMEs in relationships with larger firms might result from poor foundational or poor facilitating factors/drivers. Whereas authors like Wamba and Carter (2013) suggest age and gender might influence usage, these findings did not find that age and gender had any significant influence on social media use, probably because of the sample size. As noted in section 3.3, TAM2 is not the first attempt at explaining and predicting social media use in general. Casalo et al. (2011) studied the influence of TAM factors on online services and found that consumer trust is influenced by perceived website usability; reputation; consumer satisfaction; the perceived privacy and security policy of the website. This study is therefore consistent with their findings of the dominant influence of trust in social media use. Steyn et al. (2010) studied the influence of TAM factors on the intent of bloggers to use social media release. They found that a bloggers' perceptions of the usefulness of SMRs are positively and significantly related to their use of SMR elements. Secondly, they found that the current use of social media release by firms is also positively and significantly related to their use of SMR elements. Lastly, they found that a blogger's current use of SMRs significantly influenced their intended future use of the social media. The findings in this study are therefore consistent with

their findings that perceived ease of use and perceived usefulness could positively influence the use of social media in supply chains by SMEs. This study identified four factors that are critical drivers for social media use by SMEs. The next section discusses each driver.

5.3.1 Perceived usefulness

Larger firms may not perceive that the use of social media in their supply chain might enable them to improve collaborative relationships and share information safely and securely. However, this does not necessarily mean that social media is the exclusive use of SMEs. It would be wrong to think that larger firms are not concerned by it. In fact, social media is currently used by the large firms in this study for talent hunting and marketing but not necessarily used in their supply chains. Thus, the use of social media to better information sharing is something that some SMEs are embracing to improve B2B relationships and increase overall competitiveness.

At the point where SMEs decide whether or not to use social media with their supply chain members, behaviour motivation theories such as TAM suggest that its usefulness is key to their eventual acceptance and usage (Wu et al. 2011). To a large extent, a key consideration regarding the use of social media in the supply chain by SMEs is their perceived usefulness. Specifically, the findings revealed that perceived usefulness could positively influence the use of social media by SMEs and their supply chains. Contrary to studies such as Ramayah and Ignatius, (2005) who found no significant association with perceived usefulness and technology use, this finding is supportive of studies such as Davis, (1989); Adams et al (1992); Joo et al (2008), Wu & Chen, (2005); Hossain and de Silva (2009); Casaló et al, (2010); Steyn et al, (2010); Casaló et al, (2011); and Sago, (2013) that found perceived usefulness to be a significant factor in technology use in general. Although studies on social media use in the supply chain from the TAM perspective is limited, nevertheless the perceived usefulness construct remains relevant to other technological usages.

This finding is an interesting conformity to deterministic expectations presented in the literature that social media or technology in general, provides high efficacy (usefulness) as platforms for opportunities rather than challenges (Bajaj and Nidumolu, 1998; Hsu and Lu, 2004; Casalo et al. 2011; Steyn et al., 2010). As such, this finding suggests a need to pay closer attention to the new and evolving use of social media within the Supply Chain in the SME context. Is it possible that the perceived usefulness of social media drives SMEs to use it with their supply chain firms? That is, assuming their

perceived assessment of the function assures SMEs that the capabilities of social media do effectively match up with their requirements.

The perceived usefulness is associated with the ever-changing and evolving uses of social media by SMEs (e.g. for advertising, for e-commerce, for PR, for sharing information, for gaining information on competitors, for forming groups, for identifying opportunities, for recruiting, for improving relationships with not only their customers alone but supply chain firms as well). This study indicated that the majority of larger firms interviewed had considered social media as a relationship tool with their end customers (B2C relationships) but not so much for their supply chain (B2B relationships). This would be down to the existing nature of their relationship (e.g., strictly transactional) and nature of the information (confidentiality). While the study indicated that the majority of the SMEs interviewed had considered social media as a relationship tool with their end customers, there was no such consideration for their supply chain. This was down to these reasons: 1) the 'real' nature of their relationship (e.g. strictly transactional) or 2) the nature of their supply chain (e.g. small and straightforward supply chains which favoured more personal and face-to-face interactions or were deemed too complicated). It was found that the case of the SMEs triad (all SMEs) that used social media as a relational tool had considerable levels of trust. They spent considerable periods managing B2B relationships as well as dealing with the levels or volumes of transactional exchanges shown in Table 4.9. Moreover, findings indicated that the overlapping use of social media for personal and business purposes, especially for SMEs contributed to the ease of use of social media, unlike their larger counterparts that had dedicated resources and staff for social media. Also, the larger firms were more concerned with monitoring and controlling social media use (e.g., the type of social platforms permitted and security issues) and its analytics than its ease of use. In summary, the use of social media by SMEs confirmed Venkatesh and Davis (2000) and Davis (1989) assertion that perceived usefulness and perceived ease of use still influence social media use with their supply chains. The findings also highlight a mismatch between the actual capability of social media and the perceived use of social media.

One main difference is that large organizations often had dedicated staff, e.g., employees that focused on areas like social media and forecasting. The majority of the SMEs faced limited resources and as such, they could not afford to have dedicated staff, particularly as most employees of SMEs had multiple roles that focused more on the daily operations/business as usual than dedicated roles.

5.3.1.1 Social media as a tool for information sharing

Information sharing and control were also found in cases with social media use by SMEs. Collaborative B2B relationships may occur after closely working with the supplier. Sharing of useful information and ideas may begin to develop in B2B relationships with suppliers. In some cases, access to information was restricted between suppliers. For example, the supplier did not want the other supplier to become aware of information surrounding the project and where materials were sourced as they would lose value to the buyer and so they limited/restricted information on Facebook. The findings identified that many SMEs believed that power came from withholding information (information hoarding). The transactional exchange was found to be a key factor of power and influence. For example, many SMEs would recall the length of business or past benefits to motivate otherwise unwilling suppliers or buyers to use social media. However, information sharing and collaborative B2B relationships can open SMEs to the risk of opportunism.

5.3.2 Perceived ease of use

Focusing on perceived ease of use, Casaló et al. et al. (2010, p.899) argued that “attitude appeared as a direct function of perceived usefulness and perceived ease of use, and perceived usefulness is also affected by perceived ease of use.” Similarly, Wu et al., (2010, p 141) suggested that “perceived ease of use has an indirect influence on intention to use, and perceived ease of use influences intention to use through perceived usefulness.” This means that relationship between perceived ease of use and usefulness might enable SMEs to use social media in their supply chain. The rationale for the emphasis on perceived ease of use is that the more SMEs perceives social media as easy to use, the more significant their intent toward social media use.

Perceived ease of use encourages SMEs to adopt and use social media. Consequently, it can be argued that high perceived ease of use may strengthen (more positively) the association with perceived usefulness and intent (attitude) to use social media in supply chains. Findings from this study confirmed that perceived ease of use (such as it comparability with various devices, speediness, and interactive features) influences the perceived usefulness and ultimately the use of social media in supply chains by SMEs. The implication here is that the commonly examined direct relationship between technology adoption and the perceived ease of use may be overly simplistic. As the findings of this study show, SMEs use or non-use of social media is influenced by multiple internal and external factors (as such perceived ease of use) influence how

SMEs use or not use social media to achieve better collaborative relationships and ultimately better competitive edge.

This study's findings are in line with studies such as: Davis, 1989; Adams et al 1992; Lee et al, 2003; Joo et al 2008; Hossain and de Silva 2009; Casaló,et al, 2010; Steyn et al, 2010; Sago, 2013 that found positive associations between technology use and perceived ease of use. These findings are contrary to some other SCM literature suggestions. For example, Hsu and Lin (2008) found no significant relationship between ease of use and technology adoption and use.

It can be argued that, perhaps, the use of social media by SMEs in the competitively intense environment is not entirely or exclusively premised on the perceived ease of use. Put differently, SMEs firms and their supply chains may exist in various environments, as these SMEs may be exposed to competitive environments with managerial challenges that can influence their use or non-use of social media. Thus, the use of social media in the supply chain by SMEs is not necessarily down to its (social media) capabilities like interactivity, speediness and comparability features. Although the ease of use cannot be underestimated, it is not the primary driver for the use of Social Media. For example, social media adoption has been driven by social influences like popularity as the most popular technology is not the easiest to use. It is equally important to state that the perception of ease of use does not equate to social media use in supply chains at all times. For example, choosing ease to use social media platforms when more investment in B2B relationships particularly trust and transactional relations is required, will not deliver the required (social media) benefits to SMEs and their supply chain. In fact, it is possible that managing and sustaining collaborative relationships that offer competitive advantage might be a better approach to take.

5.3.3 Social influence

In this study, there was found that the social influence affected the use of social media in supply chains and SMEs in particular (Venkatesh and Morris (2000). From a social influence perspective, it was found that SMEs had come to use social media in supply chains because of an influential buyer or supplier used social media (Hsu and Lin, 2008). Further details are provided in section 5.5.1 to prevent an overlap.

5.3.4 The business environment

In this study, it was found that the use of social media in supply chains by SMEs is influenced by the external environment. There are many multi-layered factors that affect SMEs social media use; they include competitor, customers and the firm's innovativeness. Competitive environment and competitors seem to be a logical driver for social media use in SMEs, as a source for benchmarking. Competitive edge and speedy interactions seemed to be a strategic necessity to the SMEs interviewed. It was found that many SME firms were encouraged by their supply chain to adopt and use social media, particularly Whatsapp, to enhance their interaction and their information sharing. The use of social media facilitated more collaboration and cooperation mainly between buyers and suppliers. However, social media use (negatively or positively) is influenced by the nature of relationships in supply chains. This finding is in part supported by studies like Boso et al. (2013), they found that to external environment influences the innovativeness of the firm. Studies like Premkumar and Roberts (1999) found that SMEs are more willing to use a technology if they believe there is adequate support for the technology. This study found support for social media use premised on the nature of relationships and transactional exchanges. Studies by (Ford, 1980; Mentzer et al., 2000) also confirm the critical role played by technology but found that the nature of relationships supports the use of technology across supply chains.

5.4 Facilitators / constraints to the use of social media in supply chain by SMEs

Given the assertions that social media can be a double-edged sword presenting both positive and negative impacts (Everett, 2010; Bezuidenhout, 2012; Lee et al. 2012), it is important to understand that not all factors positively drive social media use in supply chains. As such, identifying the factors that deter SMEs from using social media in their supply chain is needful.

Many factors like perceived usefulness; perceived ease of use; social influences and the business environment were shown to positively support social media usage in supply chains provided the foundational elements of trust, and transactional exchanges were operational. However, other factors like poor nature of relationships, poor internet infrastructure, 'dedicated' staff, lack of innovativeness, security concerns, external environment, power and control were shown to work against social media usage in

supply chains. These findings are supportive of studies by Kietzmann et al., (2012) which found that social media can have both positive and negative impacts.

5.4.1 Nature of relationships

The results show that SMEs in cooperative supply chain relationships are demonstrated mainly in open interactions between supply chain members, long-term collaborative relationship with a limited number of suppliers (and/or reoccurring buyer). Based on the level of formalisation of contracts within the chains, two types of structures were found; formalised and less-formalised. The formalised (contracts) arrangements are usually legally binding, with specified well-defined boundaries and exclusive in nature. The less-formalized agreements, on the other hand, operated largely without legal boundaries, and inclusivity rights leaving the SME vulnerable to opportunistic businesses. Larger firms appear more transactional oriented than their less formalised counterpart (SMEs). On the other hand, understanding the prerequisites for social media use in supply chain by SMEs can lead to better supply chain relationships and competitive advantage. The research findings highlight the need for collaborative and transactional relationships across the sectors. However, the research also suggests that collaborative relationships can be problematic to SMEs particularly SMEs without formal contracts. Therefore, a balance between collaborative and transactional exchange is necessary for improving B2B relationships and social media use.

The UK SMEs possess differing levels of B2B relationships from their Nigerian counterpart. Nigerian SMEs find it important to preserve and sustain B2B relationships with supply chain members by working with supply chain members in a collaborative and friendly manner. This is demonstrated by less use of power over supply chain members. This form of relationship and relationship management encourages both buyer-supplier relationships and supplier-supplier relationships subsequently enhancing further collaboration with and between supply chain members.

5.4.2 Internet infrastructure

Regarding the infrastructure supporting social media usage, Nigerian SMEs compared to UK SMEs were found to place more emphasis on mobile internet connectivity than fixed connectivity. This may be due to the high cost of the fixed phone line, and general poor internet infrastructure found in Nigeria.

“I access social media mainly through my mobile phone”

This finding is supported by studies by Kaplan and Haenlein (2010), they predicted that in future the use of social media is likely to be via mobile devices which might increase public access to social media. The differences in internet infrastructure (connectivity) may infer that the use of social media has been hampered significantly. Still, the general use of social media by Nigerian SMEs is significant which tends to contradict the UK's use which is fuelled by adequate fixed and mobile connectivity. Besides, the effects of an inhibiting factor such as poor internet infrastructure, Nigerian SMEs were found to be resilient in the use of social media. However, the use of social media in supply chains by SMEs in both countries was still a relatively new concept and in some cases non-existent. Additionally, the cross-analysis in the current study provides further insights into the extant literature. This finding is supportive of studies by Ardjouman, (2014), he found that SMEs in Africa is riddled with poor IT infrastructure.

The study showed similarities and differences between the UK and Nigerian SMEs in that social media in their supply chain. However, the study also shows differences in technology (internet) infrastructure and relational approach. UK Internet infrastructure was well developed to support the use of social media via fixed and mobile connectivity. On the other hand, Nigeria infrastructure was not sufficiently developed to support social media usage. For example; fixed connectivity via fixed landlines was limited and accessed by a limited few due to high cost. Mobile connectivity via mobile phones was the most widely accessed method by Nigeria SMEs. This finding is supportive of studies by Eder and Igbaria, (2001) who found that that use of technological innovation is significantly (positively) impacted by the increment of technological configurations specifically IT infrastructure. The study found that as widely adopted social media is, there remain opportunities for social media in terms of its use by SMEs and infrastructure in Nigeria.

5.4.3 Security issues

The use of social media platforms, on its own, does not indicate that the use of social media in supply chains exists as many factors influence this decision such as the nature of the sector and security concerns did not necessarily consider it useful in supply chains (see section 6.6 for further discussions).

5.4.4 Power and control

This study found that SMEs had less power and control over their larger counterparts. The majority of SMEs in this study faced some form of restraints on the amount of

transactional exchange with large firms as there were limited resources, skilled expertise and advanced technologies (information systems) available to them. On the other hand, the majority of the larger firms in this study seemed to have more resources available to them, as such, majority of the SMEs in triadic relationships with larger firms seemed to have less power, control and influence over the use of social media with and between their supply chain triad. This is an area that significantly affects SME relationship as SMEs may lose their competitive edge and often times transactions due to power and control of large firms or firms with high transactional power.

Power relations were found in all aspect of supply chain relationships. Power and influence were found in buyer-supplier and supplier-supplier relationships. In some cases, the individual firms in triadic relationships are not aware of these power relations, but the influence became evident upon the analysis of their triadic interaction. In some cases, the use of social media has been through following the request of a buyer/supplier that exhibits reward, coercive, expert or legitimate power (Hsu and Lu, 2004; Dholakia et al., 2004). This was found common in highly political and fast-paced environments, e.g. Fashion industry. This is probably due to the buyer or supplier trying to be perceived as collaborative.

Prior SCM theory and research has little information to offer on the influence of control in social media by supply chains. However, the broader literature argues that there is a negative influence on control and social media (Isaca, 2010: Bezuidenhout, 2012: Unwin, 2014: Culp et al., 2015). The negative influence reported in this study suggests that control of social media use may not encourage information sharing and might not lead directly to collaborative relationships. The reason why firms restrict or control social media usage is to prevent the sharing of sensitive information which could harm their reputations. As such, many large firms have employees, who manage and champions social media activities. However, it is hard to expect high morale and compliance from employees or supply chain members (SMEs) from this behaviour (control) if SMEs are forced to impose controls and social media preferences of the influential supply chain member. On another hand, it could be argued that it would be hard to use social media in B2B relationships without imposing some form of management or process control (Bezuidenhout, 2012: Culp et al., 2015). Indeed, the analysis reveals that many larger firms particularly in the IT sector exhibit some level of control in their social media usage with B2B firms in terms of preference and directive on the use of social media.

5.4.5 Innovativeness

In addition, the increase in popularity of social media in larger firms has driven management to become more aware, monitor and control their staffs' use of social media in the workplace. Many large businesses interviewed in this study had restricted access to social networking sites in the workplace as a way of controlling social media use and, in-turn limiting the risk of data leaks and risk to their reputation. However, the nature of social media makes data control challenging. An upward trend also exists the 'consumerization of IT' where employees use their (mobile) devices in the workplace (to connect with social media), which further blurs the boundaries between personal and work use. As such, these blurred lines may account for restrictions on social media sites in the workplace, and dedicated staffs who handle social media use particularly in data-sensitive sectors. This finding is supportive of the literature view that explains consumerization as a bottom-up approach to IT but despite its popularity is becoming challenging to manage (Morabito, 2014). This finding is supportive of the studies of Wamba and Carter (2013) that explains that firm size has a significant positive impact on the use of social media by SMEs. It was found that SMEs are more likely to use social media (Facebook, Twitter or LinkedIn) in their supply chains than larger firms probably due to their flatter structures than enhancing their innovativeness and their nature of (informal) relationships. These findings also align with studies by Fischer and Reuber (2011), they found that larger firms took preventive actions such as restriction of social media sites and dedicated staff to manage the risk/damage to the firm's reputation particularly those that use social media. The use of social media in SMEs was found to depend on the business owner's innovativeness. This finding shows the importance of the innovative business owner in the adoption and use of social media. The role of the business owner in SME firms and to their innovativeness cannot be understated; it appears that to a large extent they were responsible for the use or non-use of social media. It is worth noting that some of the business owners also confirmed the use of social media for their personal use tend to overlap. Participant in the usage category commented, ''I am a bit social media savvy and I also use in my social life." Another SME participant commented *''I don't mind using new technologies that targets my customers*". This finding is supportive of studies by Walczuch (2000) and Al-Qirim (2008), they found that the use of email by SME firms depended on the innovativeness of the business owner.

On the other hand, only triads with all SMEs were more flexible enough to adopt social media in supply chains more readily than larger counterparts. This finding is supportive of studies by Poon and Swatman (1995) that found SMEs are flexible enough to

innovation in new and different ways. The study also found that challenges encountered by SMEs are different from those encountered by larger firms. This is in line with studies by Blili and Raymond, (1993).

According to Michaelidou et al. (2011), the firm's innovativeness can positively drive social media usage (Wamba and Carter, 2013). Although, the use of social media is based on the perception of the individual or business not necessarily the technology itself (Dillon and Morris 1996; Iacovou et al. 1995: Michaelidou et al. 2011). Frambach and Schillewaert (2002) further find that innovativeness and firm size determine the adoption and use of social media. According to these authors, low innovativeness can negatively influence the use of technology in general (Mehrtens et al. 2001, Frambach and Schillewaert 2002;). Like previous studies (Dillon and Morris 1996; Iacovou et al. 1995, Mehrtens et al. 2001, Frambach and Schillewaert 2002, Frambach and Schillewaert 2002) the use of social media by SMEs influenced by the innovativeness of the specific firm (Michaelidou et al. 2011, p 18).

Nevertheless, this negative relationship can be explained in two ways. 1). it can be argued that the likelihood of some SMEs to use social media might be new to supply chain firms of SME firms but less new in marketing. 2). There is a tendency for SMEs to focus on personal face-2-face interaction (Ceci and Iubatti, 2012: Ritchie and Brindley, 2005: Vegholm, 2011) rather than being more dependent on interactive technologies like social media and this might lead to the more sustainable competitive edge. However, findings indicate that innovativeness has a positive influence on social media use in supply chains by SMEs. This finding is supported by studies such as those carried out by Wamba and Cater (2013).

This influence could be taken to suggest that SMEs can use or increase their use of social media when their innovativeness or an innovative culture to support it. This finding is in line with studies by Barnes et al., (2008) that found that SMEs innovativeness drives the business forward and shapes the character of their decision making.

Few scholars (e.g. Lewis and George, 2008; Pookulangara and Koesler, 2011) have studied the influence of cultural differences on social media adoption using Hofstede's (2001) cultural dimensions. However, given that a thorough study of culture by its nature can be voluminous and time-consuming and that currently social media is widely used by many countries and religions worldwide, the researcher decided to focus on the innovativeness of the firm rather than the cultural differences. Thus, this finding is supportive of literature view that explains that innovativeness can influence the use of

IT/new technologies (Boso et al., 2013). However, this finding is in contrast with the literature view that explains cultural difference can limit the use of social media (Lewis and George, 2008; Pookulangara and Koesler, 2011).

5.4.6 Resources

Discussions and findings in chapters 5 and 6 suggest that dedicated (that is in larger firms assigned) staff have an impact on the general use of social media by larger firms. The explanation for this appears to be that access or availability of resources were larger where businesses have better access to resources such as dedicated staff to manage their social media use, than SMEs. The study found the dynamic nature of the high-tech sector may contribute to the need for large firms to have dedicated employees that can accommodate the fast-paced environment and social media use. The use of a dedicated staff depended on certain competencies such as skills, knowledge and experience of the employee. In general, dedicated staff (sometimes referred to as social media champions) might need to make strategic, formal posting and make timely decisions that reduce risks to the firm but exploits the environmental opportunities (often working closely with the HR, marketing or legal team). However, none of the SMEs in this study could hire an employee in a full-time capacity to manage social media; instead some level of experimentation with social media was often employed by SMEs to explore which approach worked best for their business. The presence of dedicated staff (in theory) can help develop strategic relationships.

The analysis shows that there are differences between SMEs firms and larger firms in their general use of social media. The result of the study shows that there is a significant difference between SMEs and larger firms with regards to available resources. This finding is in-line with results on the same issues. The analysis gave the impression that SMEs differ from larger businesses in terms of a lack of dedicated staff for social media use and less formalised structures (relationship) management. SME firms most of which were less formalised (relationship) structures and managerial in nature appeared to use social media in their supply chain than SME firms and larger firms with more formalised (relationship) structures and managerial expertise. The non-use (or lack) of sophisticated information technology, highly skilled and dedicated staff were found to be prominent in SMEs. For example, SMEs in supply chain triads with these larger firms often do not view such sophisticated investment as beneficial to their business but may only consider it needful to their relationship with large businesses. This implies that SMEs may focus more on the perception of the prominent firm or on the cost of technologies. As most SMEs have limited resources and staff, it can be implied that

SMEs may find the low cost and interactive feature of social media more attractive than expensive, sophisticated ones. This finding is supportive of studies by Barnes (2010), they found that staff resource was an inhibiting factor in the use of social media.

These findings are in line with studies (e.g. Tan et al,1999; Wymer and Regan, 2005; Lawrence, 2002 & 2008; Barnes et al., 2008; Barnes, 2010; Ashworth, 2011; Aral et al. 2013) which observed that SMEs had fewer resources and expertise in terms of technical and financial skills when compared to their larger counterpart. One of the reasons why SMEs have financial constraint may be due to the 60 days financial payment cycle of larger firms to these smaller firm's invoices and their limited ability to attract highly skilled staff to their environment. As such, this might make SMEs more vulnerable in their relationships with larger firms which are supported by literature (e.g. Gallaugher, 1997; Wymer and Regan, 2005). This finding is also in line with studies by Pool et al., (2006) that found that larger firms have well-defined approaches, strategies and processes.

It has become apparent that businesses manage their existing relationships directly or indirectly. This soft skill needed is equally as important as the capabilities (technical) required in gaining competitive advantage and obtaining collaboration. This study found that the selection of suppliers is often impacted by firm's capabilities in term of expert skills and resources.

5.4.7 Nature of industry

The fast pace, competitiveness and "consumerization" in today's business environment is a major driver for social media use for SMEs. The fast-paced sector is usually characterized by its dynamism, high-intensity and increased competition. For SMEs in these environments, fighting off local, international and online competition is crucial. "IT Consumerization" stemming from technological advancement that has pushed the focus and technological acceptance of the consumers. Emerging technology, economic uncertainties (due to Brexit negotiation), a greater variety of products and services, intense competition reflect the sometimes complex and dynamic business environment (Mitchell et al., 2011; Azadegan et al., 2013; Zhang et al., 2012). SMEs in this study, have adopted collaborative relationships with their buyers and/or suppliers as a means of warding off the competition they face.

This comparative study's findings revealed that the high-tech (IT) and creative (fashion) SMEs had higher application levels social media usage than the food manufacturing

SMEs. These findings showed similarities with triad cases in the UK and Nigeria. The IT industry requires information to be secure, confidential, organized and systematic more so than the food manufacturing and fashion sectors. The use of public social media (like Facebook, Twitter and LinkedIn) in supply chains is limited probably due to security concerns and nature of the information proposed to be shared. For example, the industries like the low-tech sector had some levels of regulation while industries like the high tech and concerns around security and data. These data may include confidential and competitively sensitive data. To this end, the large firms in this study invest heavily in advanced information systems, ensuring data restrictions and making audit trails. The private social media platforms used by large organizations in the high-tech sector in this study include (Bloomberg and SameTime). Platforms like LinkedIn were used more for talent hunting than in supply chains. This finding is supportive of the literature view that the use of IT by SMEs varies across sectors (Harland et al. 2007; Oliveira and Martins 2009). This finding is in contrast with the findings from Wamba and Carter, (2013) that found firms from manufacturing sector are more likely to use internet enabled innovation than firms from other sectors. However, this study also found that the industry sector is positively influenced by the use of social media. This view is in line with studies like Wamba and Carter (2013).

The findings of the study show that use of social media in supply chains is a relatively new concept or is not fully developed. However, the findings showed that Facebook was the most widely used form of social media by SMEs in general followed by Twitter. The use of social media was dependent on the nature of the sector. These platforms were widely used by businesses in the creative and visual industry and least used by businesses in the food manufacturing industry. This finding is aligned with studies by Kushin and Yamamoto (2010); Fischer & Reuber (2011); and Centre for Enterprise Report (2014) which found high usage of social media such as Facebook and Twitter by uses in SMEs.

This finding is supportive of studies by Ashworth (2011) that found that amongst SME fashion firms, the motivation to use social media was high amongst those in stronger B2C relationships. LinkedIn was not widely used by SMEs and their supply chain as it was viewed as the least social and interactive tool. Surprisingly, the IT industry which we expected high usage of social media used only private social media platforms such as Bloomberg and SameTime as interactive tools due to the nature of the sector and sensitivity of their data.

“We are blocked from using public social media only those provided by firm x.”

This finding is supportive of studies by Kapalan and Haenlien (2010), they found that employers of large firms were blocked from accessing some social media sites whilst at work. As in this case not only had they provided formal policies and guideline, they also restricted access to these sites.

5.5 Findings on how does social media use by SMEs affect the relationships with and between supply chain members

This study has mainly sought to address “how does social media use by SMEs affect the relationships with and between supply chain members?”. A summary of the literature on social media use from a supply chain context reveals that only limited research has been done specifically on its (social media) influence on B2B relationships in supply chains. Consequently, this study provides rich and detailed information on the use of social media in the supply chain by SMEs. In this way, this study addresses a call by O'Leary (2011, p17) to understand the impact of social media on communications, trust, and relationships in the supply chain. Some studies have shown mostly the benefits (and challenges) of social media use in general (Zeng et al., 2010, Rapp et al., 2013, He et al., 2013, Markova and Petkovska-Mircevska, 2013, Li, 2011: Kosk, 2012: Mcentire, 2012: Gonzalez, 2013). Thus, the generally accepted norm that new technology use drives competitive advantage needs to be examined and the use of social media by SMEs from a supply chain context needs to be explored further.

Moreover, without interactive capabilities (in social media), advances in technology might make no difference (Mentzer, 2001) to businesses and their competitive edge. It is also essential to have a trusting relationship between the supply chain members, where each actor has mutual confidence in the other factors capabilities and actions (Sahay, 2003). Today’s environment can be described as intensive and competitive. This study seeks to address how social media use by SMEs affects relationships with and between supply chain members. The impact of social media use is discussed from an interactive and relational context.

5.5.1 The interactive context

First, social interaction between SMEs and their supply chains might occur on the backdrop of collaboration or possible transaction among members of a supply chain. This potential/current transactional exchange might drive the need for collaborative relationships, and in turn, an influential member or members of a supply chain may

perceive as imperative to share information with and develop common norms for information sharing via social media. The use of speedy technology-based interaction via social media with information sharing norms allows users (supply chain members) to bridge cognitive gaps and create shared meaning. In the interview with triad C, the theme that emerged from social influence showed that use of social media is governed by the need to share information during collaborative efforts. The social influence of social media use created common norms for information sharing for improving B2B relationships and subsequently improving their competitive edge; reduce conflicts; flexibility and improved operations through a reduced bullwhip effect. Accordingly, social influences tend to have an impact on social media use (Venkatesh and Davis, 2000). Thus, contrary to the research notion, this study found that social influence rather than the perceived usefulness of social media such as information sharing that influenced the use of social media in supply chains. from a social influence perspective, the finding that SMEs were willing to use social media because of their community (supply chain) identification. This finding is supportive of studies by Hsu and Lin (2008), which found that social influence had a positive and significant influence on blogging.

The use of social media can bring buyers and suppliers of SMEs together by providing an interactive platform for information sharing and collaboration which is time and cost saving. The concept of social media use needs a “buy-in” from the supply chain parties to achieve the benefits of social media. Buyers may understand the benefits from collaboration with suppliers and between suppliers; however, the buyer still chooses to keep relationships between suppliers at arm’s length, highlighting the nature of relationships.

The most commonly used mode of interaction by SMEs is telephone conversations, emails and face-to-face interactions. Interactions in this study, exist mainly between buyers and suppliers while little too limited interactions occurred within suppliers of a chain. It was found that buyers would have one-to-one interactions with their suppliers during face-to-face meetings (monthly or as required) or during phone conversations. However, these forms of interactions were still complimented by emails from or by buyers or suppliers. Interactions with suppliers were limited to when the suppliers felt they needed to collaborate with their fellow suppliers. In this case, emails and face-to-face meetings with the buyer present or copied in was involved. These forms of interaction are preferred to provide some form of a trail of records. The use of social media in supply chains by SMEs, in this case, was little. This can be due to nature of the relationship, nature of the industry (business environment) and the nature of information. Findings reveal that the non-use of Twitter, LinkedIn and Facebook in the

creative and high-tech industry were mainly down to the sensitivity of information (security), the type of industry and the kind of relationship that exist.

To improve relationships of any kind, or/and use social media in supply chains, interaction needs to be promoted and embedded. In addition, sustainable relationships and social media use need relationship management premise particularly innovativeness, trust and transactional exchange. From the SME's point of view, achieving improved interaction and relationships are important factors to enhance competitive advantage. Improved interaction and relationships were highlighted as significant factors in competitive advantage.

Speedy interactions between members of supply chains were found to have often indirect impact on a firm's competitive advantage. Free interactions with supply chain members can build trust, improve information sharing, better (strengthen) B2B relationships which ultimately improves competitive advantage. Both buyer-supplier and supplier-supplier collaborative relationships depend on the buyer/supplier ability to create and maintain interactive platforms with members of their supply chain. In line with studies like Grönroos (2004) found interactions can increase RM. Roy et al., (2004) found interactions to influence innovativeness. The ability to improve relationships through interactions via social media use with and between supply chain members leads to the use of social media platforms that can build and sustain relationships necessary for better competitive advantage.

5.5.2 The relational context

Today's business environment can be described as uncertain particularly as recent events in the UK and Nigeria such as Brexit negotiations in the UK and political unrest in Nigeria when coupled with intensive competition, are challenging a generation of assumptions. The assumption that for businesses to succeed (indeed to survive or to be competitive), they need to focus on their transactional exchange. For example, in the past, businesses and their supply chains leaned heavily on traditional SCM technological systems like Enterprise Resource Planning (ERP) and sophisticated quantitative analytics to produce a significant amount of data to forecast sales and predict transactions. However, businesses are beginning to also focus on the fundamental building block -collaborative relationships with their suppliers or buyers in order to gain a competitive edge.

The findings show that trust among supply chain members is linked with information sharing. For example, high levels of trust among supply chain parties showed substantial levels of information sharing. Thus, these collaborative supply chain members demonstrated an active interaction via social media associated with robust information sharing norms. By contrast, lack of trust reduces the individual's firm's need to share information via social media with supply chain members and drove supply chain member to use more formal systems like emails. High transactions also enabled supply chain actors to collaborate via other existing tools and processes as well. Technological tools like emails, phone and face-to-face meetings were the most commonly mentioned during the interviews. Other interactive tools mentioned were conference calls, instant messaging and social media.

Preliminary social media theory, such as Kietzmann et al.'s (2011, 2012) honeycomb of social media, focused on the various uses of social media for businesses. According to the honeycomb of social media, the relationship is one of the seven main applications of social media. In other words, social media use may influence relationships with suppliers and between buyers and suppliers. This is premised on the notion that social media can be used as a relationship tool that improves information sharing, prompts collaborative relationships and subsequently better competitive edge. It has been said that information from the face-to-face interaction is richer than that obtained from social media. Thus, supply chain members are likely to use social media when information is not highly sensitive, confidential and susceptible to misinterpretation. Many authors have argued that turning all focus on the frequency of interaction for the measurement of interaction is in itself flawed and highly subjective. However, it is worth considering that interactions are generally influenced by the social context.

5.5.2.1 The explanation for the relational view

This study also shed light on the relation view of the firm (Dyer and Singh, 1998). This thinking argues that relational rents can only occur collaboratively rather than individually. Of particular interest, here are the buyer-supplier and supplier-supplier relationships. This study found that the relational view encourages collaborations and the use of technological resources like social media in supply chains. However, firms cannot generate relational rents individually but rather by collaborating with their supply chain which again begs the questions posed in section 2.3.3 does competition occur between individual firms or their supply chain? Collaboration, from a buyer standpoint, creates a pool of suppliers that can provide competitive prices and improve their competitive advantage. From a supplier's standpoint, these pools of suppliers can

translate to increased competition and bargaining power. However, what is sometimes lost is that for relational rents to occur the focal buyer or supplier has to focus mainly on strategic (and close) relationships with suppliers to account for increased profits or competitive advantage. Collaborative relationships and the triads that used social media in this study were characterised by transactional exchanges (with focus on continuity), informal structures, conflict resolution, fewer bottlenecks, Informal contracts, trust and information sharing with suppliers. Relational rents or collaborative relationships with and between supply chain members with business continuity in mind were since to use social media in their supply chain. By doing so, relational rents such as information sharing are more likely to grow with time. The rationale here is that SMEs are more enabled to focus on the relational as well as transactional exchanges that provide an excellent platform for social media use.

Many suppliers confirmed there was an intense level of influence from the buyer-supplier relationship mainly as the B2B relationship grew or transactional volumes increased. Example of some of these influences include 1) adopting new systems or technologies to meet the buyers internal auditing process 2) changes to projects or work order 3) design processes. For example, in cases C and F, the SME buyer influenced their supply chain triad to use social media for better access and information sharing.

Many buyers in this study indicated minimal influence from the supplier-supplier within their triad. Even though the finding suggest that influences were widely perceived to be driven by the influential buyer or larger firm in this study, relationships between suppliers will also be influential if the suppliers have expert knowledge and/or market penetration. Although, many suppliers in this study indicated that they had limited interactions with their fellow supplier counterparts and mainly worked together only when required by the buying firm, they seemed to have some knowledge of how each other operated

5.6 Discussion of findings

Maintaining and sustaining collaborative B2B relationships with SMEs and their supply chain members remains at the heart of SCM research, business management, and policymaking. This is probably due to the role of SMEs in the innovativeness, growth and competitiveness of many firms and countries. However, there are risks often associated with SMEs such as business survival, profitability, ability to compete in intensive environments, financial constraints, skilled force challenges and technological and relational opportunistic vulnerabilities (Awheda et al., 2016; Abor and Quartey,

2010). Despite these previously mentioned risks that are often associated with SMEs, B2B associations with these SMEs remains crucial for these reasons: 1) SMEs can serve as a source of useful information 2) SMEs can provide a competitive edge which is important for some firms' profitability and survival 3). SMEs can offer opportunities for expansion of product and services range which provides growth and extended market coverage.

The aforementioned are benefits as well as challenges of firms in B2B relationships with SMEs in these times of uncertainty following from the BREXIT negotiation, increased operational cost and increased competition Considering the aforementioned benefits that firms stand to gain in B2B relationships with SMEs as well as the challenges that SMEs face, such as these times of uncertainty with the Brexit negotiation, increased operational costs and increased competition both locally and internationally (FT, 2017) it makes a case to explore B2B relationships as a potential source for competitive advantage. Scholars in SCM are yet to explore how technologies such as social media can serve as a relational tool for building and sustaining existing B2B relationships. As the pace of technology accelerates coupled with uncertainties such as the intense competition, the focus of management is inevitably shifting to maintaining and sustaining existing B2B relationships using low-cost new technologies. In addition, given that SMEs need to compete in today's business, it is essential to balance the two parallel and contending imperatives (transactions and relations). They also have 1). To maintain pre-existing relationships with and between SMEs and their supply chains. 2). To sustain or improve these B2B relationships in other to improve their competitive advantage.

Focusing on the B2C context, factors such as the macro politico-legal; economic; sociocultural; technological; competitive intensity; marketing strategy, reputation, firm size and relationship orientation have been well researched (see Seuring, and Müller, 2008; Alexiev et al, 2016; Lee, 2002; Hilletofth and Hilmola, 2010; Awheda et al, 2016; Harland et al, 2007; Ceci and Iubatti, 2012; Mohr and Spekman 1994; Knemeyer and Murphy, 2005a: 2005b; Dey et al., 2008; Skinner, 1969; Slack, 1991; Sunil and Meindl, 2001; Sako, 2004; Lai et al, 2008; Lee et al, 2000; Fiala, 2005; Zhang and Cheung, 2011; Gimenez and Ventura, 2003; Cousins, 2005; Li et al 2006). This research is a novel attempt to explore how the use of social media by SMEs affect relationships with supply chain members and between supply chain members.

Continuity business orders, trust and increased cooperation, are some of the characteristics as the B2B relationship grows. The buyers in such relationship take advantage of the improved cost, and dedicated and collaborative services obtained from

doing business with selected suppliers. These findings are in line with results from Narasimhan and Das, 2001; Guimaraes et al., 2002; Paulraj et al., 2006; and Hartmann et al., 2012. To this end, the understanding of the selection of collaborative B2B relationships with suppliers provides insights and understanding of collaborative relationships between buyers and selected suppliers.

5.7 Chapter summary

The discussion of findings has shown that trust and transaction exchanges are fundamental foundations that support social media use by SMEs. The drivers of social media in supply chains include: the ease of using social media; the usefulness of social media, social influences and the business environment they operate in. The facilitators of the use of social media include; the nature of their relationship, Internet infrastructure; innovativeness, security concerns; power and control; type of sector and resources. It was argued that it is the relationships with and between supply chains that influence the use of social media in the cases studied. Nevertheless, social media use could either positively or negatively influence the interactions and relationships with and between supply chain members. The use of public social media platforms in supply chains by SMEs was found more prevalent in the creative industry. One significant difference between SMEs and larger firms was that SMEs did not have dedicated staff (resources) to the management of social media.

Chapter 6 CONCLUSIONS

6.1 Introduction

This concluding chapter presents an overview of this thesis. The study's contributions to theory, practice, and policy are also detailed. After this introductory section, the chapter is organized as follows: section 6.2 presents an overview of the thesis; section 6.3 highlights the summary of the findings; while section 6.4 presents the research contributions; section 6.5 explains the limitations of the study. Section 6.6 outlines the direction for future research and finally ends with a summary.

6.2 Overview of thesis

Within marketing literature, much work has been done on the use of social media. However, not much is known about the use of social media from a supply chain context. These existing social media studies largely focus on exploring relationships between businesses and their end customers (B2C). In these studies, social media use is frequently measured in terms of the number of visitors to the site, active fans, likes, views, followers, responses, retweets, comments, conversations, support customer interaction, the return on investment (ROI) and analytics etc. Nevertheless, it is difficult to measure all social media use particularly when it comes to issues with relationships or its impact. Despite the growing numbers of studies exploring relationships with and between supply chain members as means to improve competitiveness (see: Choi et al., 2002; Wu et al., 2010; Wu and Choi, 2005; Paulraj et al, 2008; Wu et al, 2010; Choi et al, 2002; Fynes et al, 2005), the use of social media by SMEs from a supply chain context has not been fully explored in the literature (see chapter 1).

Chapter two reviewed the literature on SCM, RM, and Social media. Many scholars (e.g. Porter, 1985b; Powell and Dent-Micallef, 1997; Gimenez and Ventura, 2003) have a deterministic view that IT use provides a source of competitive advantage. The features of social media such as speedy interaction and information sharing capacity can positively influence B2B relationships. For example, the flexibility, speed, and interactive characteristics may improve relationships among supply chain members. Unfortunately, not much exists in literature to explain the features and capabilities of social media and its impact on B2B relationships. This issue of limited information on social media use in

supply chains introduces the question which this research seeks to explore how does the use of social media by SMEs affect relationships with and between supply chain members? Of fundamental interest was the need to explore supply chain relationships as a source of competitive edge and how relevant the use of social media might be to the competitive advantage of SMEs and their supply chains. The focus on SMEs was necessary as the research gap showed the majority of SCM studies were mainly centred on large companies to the neglect of SMEs. This choice was also informed by the importance of SMEs to the UK and Nigeria's economy, employment, income, and competitiveness. In 2017, as UK businesses face increased uncertainty particularly during the ongoing BREXIT negotiations and heightened competition both local and foreign, the competitiveness of UK SMEs and their supply chain will be necessary for survival.

Chapter 3 discussed the theoretical framework for this study. This was achieved by combining two theories; TAM2 (concentrating on the perception of usefulness and ease of use) and the relational view of the firm. Individually, TAM2 focused on how users come to accept and use social media while the relational view focused on understanding the competitive edge that emerges from supply chain relationships. By doing this, the relationships between buyers and suppliers and amongst suppliers through social media use is fully explored. Collectively, the two theories provided the sound theoretical basis for analysing the research question- how does the use of social media by SMEs affect relationships with and between supply chain members? The choice of research methodology was explained in the rationale provided. The research strategy employed was a multiple case approach. The choice of case study strategy was based primarily on the research aim and questions. Yin (2014) suggests that a wide range of qualitative data can best be understood as case studies. Case study strategy was selected to provide a detailed, holistic and intensive information about the phenomenon and for comparative reasons as well. The case study was exploratory in nature as little research had been done to understand the phenomenon- the use of social media in supply chains by SMEs. The cases in this study focused on 6 triadic relationships. Each case consisted of firms in three-way relationships with members of their supply chain and a minimum of one SME in each supply chain triad. The study included informants for the food manufacturing, fashion and IT industries based in the UK and Nigeria. Qualitative data were collected using semi-structured interviews for a total of eighteen participating firms. Semi-structured interviews were carried out to allow for flexibility and the opportunity to explore particular responses and themes further. Additionally, the philosophical assumptions of the study were that of a social constructivist. The social constructivist stance was adopted to gain more profound insights into and focus mainly

on the SME's perception of social media based on their use or non-use of the technology with supply chain members. Lastly, the data were subjected to thematic analysis using template analysis.

In chapter 4, the analytical approach adopted for data analysis was template analysis and the justification for this choice was provided. Lastly, the results of the final template were presented and discussed. Chapter 5 was dedicated to discussing the findings of the data analysis and explored the use of social media in supply chains by SMEs where it uncovered the differences in social media usage amongst the countries, sectors, cases, and between SMEs and larger firms.

6.3 Summary of key findings

The findings of the study show that Facebook emerged to be the most widely used form of social media in SMEs triads. Followed by Twitter. LinkedIn was viewed as the least social and interactive tool. This finding is supported by results from HBR (2009), they found that Facebook, followed by Twitter and LinkedIn were the commonly used social media platform for businesses. There was a high use of social media in supply chains by SMEs in the creative sector. There was no use of social media in the low tech sector in SMEs triads. Surprisingly, the high-tech sector did not use public social media in their relationship triad. SMEs differed from larger businesses in terms of resources (e.g. lack of dedicated staff and the cost restraints) and formalised/informalized structures. There were no significant differences between SME buyers and suppliers use of social media. However, it was found that there were degrees of influence (either directly or indirectly) and power exerted by the key or influential buyer or supplier on the other member of the SME triad to use social media. In this study, the use of social media in supply chains by SMEs was found to be a relatively new concept. It is equally important to state that merely engaging in social media does not necessarily mean that supply chain members will follow. The foundational elements for social media use in supply chains in SME triad are trust and transactional exchanges. Two out of six triads in the study that used social media were limited to those with trust as well as transactional exchanges with the buyers and between the suppliers. The drivers also include: perceived usefulness, perceived ease of use, social influence and external environment. The facilitators (or constraints) that affect the actual use of social media in supply chains include: nature of relationships; security risk; power and control; innovativeness of the SME; resources the nature of the industry and internet infrastructure. For example, the insufficient fixed telephone lines and the high cost of internet connectivity are viewed as constraints to social media use

in supply from an SME context, surprisingly SMEs in Nigeria showed resilience by using their mobile connectivity. The use of social media in supply chains cannot be overstated. However, in terms of SMEs, it was found that the nature of relationships with, and between supply chain members influenced the use of social media. This study recognized that nature of relationships to a large extent is crucial for social media use in the supply chain. The nature of relationships particularly trust is required to deliver the positive impact of social media use (Tang and Liu, 2015) (speedy interaction and better relations) amongst supply chain firms. In fact, it is possible that the nature of relationship offers a competitive advantage platform that might withstand the negative impact or the non-use of social media in supply chains. As the CEO of a fashion firm puts it “our relationship has come a long way, and what that gives me is a unique advantage over others (interview, 2016). This comment confirms (Mentzer et al., 2000) views that although technology is useful, it is actually the nature of the relationship that is helpful in achieving competitive advantage. In addition, an effort to maintain and sustain collaborative relationships without focusing on the other factors mentioned above plus the transactional element might lead to the non-use of social media. What is important is understanding that SMEs are exposed to multiple factors when it comes to SMEs and their interactions with other supply chains members. Nevertheless, the use of social media by SMEs can positively influence buyer-supplier and supplier-supplier relationships to better interact and improve collaborative relationships through information sharing, provided the foundational elements of trust and transactional exchanges are present

6.4 Research contributions

This section discusses the contribution of the study findings for theory and practice. The theoretical and methodological implications are discussed followed by the practice and policy contributions.

6.4.1 Contributions to theory

The study’s contribution for theory advancement and multi-disciplinary application are in manifolds. 1). The study contributes to SCM literature particularly, social media and B2B relationships literature on SMEs which was found to be limited. 2). The application of TAM2 (from a social constructivist stance using qualitative methods) and the relational view in addressing the use of social media in supply chains from SMEs context offer contemporary insights and lay a foundation on which SCM scholars can build on.3). this

study integrates two main fields SCM and Information Management to understand the research aim and question better.

The study finds trust and significant levels of transactional exchanges (purchasing volumes) are foundational elements for social use in supply chains by SMEs. Trust is a fundamental pre-requisite for the use or non-use of social media by SMEs. Trust and transaction embedded in the buyer-supplier dyad and supplier-supplier dyad influences social media use in supply chains which can improve their competitive advantage. This finding has clear contributions for social media in SCM literature, namely, the opportunity to clarify ambiguities around the foundational constructs (Ngai et al. 2010 & 2015, O'Leary 2011 & 2012). On the one end of the continuum are studies suggesting social media use as beneficial (Kaplan and Haenlien, 2010; O'Leary 2011; Markova and Petkovska-Mircevska, 2013). On the other, social media is presented as dark and dangerous (Everett, 2010; Bezuidenhout, 2012).

Arguing that a flexible and nuanced analytical approach is vital in resolving the ambiguous evidence, this study applied a template analysis to interrogate underlying factors, drivers and facilitating/hindering themes. As expected, this strategy provided an extensive template based on prior research, theoretical perspectives and/or a large (rich) data set that captured the research question and broadly capturing other areas of interest and dimensions. For example, perceived usefulness, perceived ease of use, external environment and social influence are beneficial drivers while nature of relationships, poor infrastructure, security risks, poor innovativeness, resources, power and nature of the industry can be hindering to social media use in supply chains by SMEs. As such, the study views the thematic and flexible analytical approach as a useful subsequent step for social media in SCM scholarship provided the themes are well understood and adequately leveraged.

This study's cross-examination of themes surrounding the research aim and question also provides critical contributions for theory in two central and broad discipline (SCM and Information Management(IM). SCM and IM literature have, hitherto, not been examined in an SME context. Previous SCM scholarship focus on traditional technologies leaving contemporary technologies (social media) unattended. IM literature, on the other hand, has mainly involved social media constructs at on larger organizational level contributing to our sparse knowledge of the underlying driver and influence of the unique SME perspective. By merging the two: SCM and Information Management knowledge, the study lays a foundation for future cross-discipline scholarly contributions.

This study also launches the descriptive TAM2 as a plausible alternative for understanding SMEs emergent use of social media in their supply chain. The theory is particularly suited to today's contemporary SME supply chain context. By highlighting the role of perceived usefulness, perceived ease of use and social influence. TAM2 enables the understanding of how SMEs have come to accept and use social media in their supply chain. In applying this theory, thus, the study moves SCM scholarship away from the planning and forecasting approach to technology use that dominates it (Simchi-Levi et al., 2003).

The theoretical lens used to capture social media use has largely been underpinned by the TAM2 (Ngai et al., 2011). The finding in this work contributes to providing a better understanding of the use of social media in supply chains by SMEs. In spite of the dearth of information on this topic, Venkatesh and Davis's TAM2 theoretical lens is applied to the social media and SCM setting. Some authors have successfully applied Davis's TAM on SCM practices to explain and predict the uptake of social media (see section 3.3 of this report). Although the empirical literature on TAM in SCM remains limited, prior studies suggest that TAM is a useful predictor of social media uptake in SCM. While TAM continues to advance (intoTAM2 and TAM3) and gain popularity in other fields such as information systems, there have been few attempts to apply TAM2 to social media and B2B relationships in supply chains. The findings of the study lend support to TAM2 as a useful theoretical lens for explaining the use of social media in SCM. The findings found TAM2 constructs (see section 6.3) on the 'usefulness' perception and 'ease of use' perception of Social Media, the eternal environment and social factors. The findings in this study contribute to the TAM2, although TAM2 serves a useful lens to explain the use of social media, it lacks a relational perspective. Thus, TAM2 was complemented with the relational view. The theoretical lens used to analyse supply chain relationships has largely been underpinned by the relational view of the firm (Wong, 2011). To the best of the researcher's knowledge, this is the first study that draws on TAM 2 to explain social media use, to explain the relational view of the firm, and to examine the influence on buyer-supplier and supplier-supplier relationships. These have clear implications for TAM2, the application of TAM2 (and the relational view) to social media offers new insights, and presents a foundation for contemporary information and approaches in supply chains.

Specifically, insights were gained about the competitive advantage that supply chain firms can achieve from social media use, and from their association with SMEs. This (sustainable) competitive advantage is gained because of the collaborative relationships with and between supply chains. It is in line with the relational view theory which holds

that information (knowledge) sharing, resources, capabilities and effective governance (power) between partners can determine competitive advantage (Dyer and Singh, 1998, p.663). The development of such relational assets demands much effort by SMEs in terms of trust and transactional volumes. In addition, this study also adds to the TAM view within the SCM research (e.g. Hsu and Lin, 2008; Hossain and de Silva, 2009; Casaló et al., 2010; Kwon and Wen, 2010; Steyn et al., 2010; Casaló et al., 2011) by exploring fundamental constructs (i.e. the perception of usefulness and perception of the ease of use of social media). The two main constructs studied in this research centred on the importance of the use and acceptance of social media use by SMEs and their supply chains and how this use affects buyer-supplier and supplier-supplier relationships and ultimately competitive advantage. By also exploring the influences on social media use, this study sheds light on factors where social media usage will become valuable or harmful to SMEs. The section that follows discusses the key findings of this study.

This study has found the themes underpinning the use of social media in supply chains by SMEs. First, the study reveals that from the final analysis social media use involved these themes supply chain relationships, transactional exchanges, competitive advantage, social media use, the environment and the attributes of SMEs. The findings that the use of social media by SMEs will improve B2B relationships by improving their interactions with and between supply chain members is vital. Altogether, this study provides a solid foundation on which SCM scholars can build on to further understand social media use from a supply chain and SME context.

6.4.2 Contribution to practice

The study's findings also provide several managerial implications for SMEs in the UK and Nigeria. These contributions include: 1) This study aids owner-managers of SMEs to make informed decisions on how the use or non-use of social media can affect relationships with and between supply chain members. 2). It provides managers with recommendations for improving their competitive advantage through better B2B relationship.

SME managers are advised to place greater emphasis on improving relationships that can support social media use than focusing on the technology in itself. For instance, they should be profoundly concerned with tackling information sharing issues, power and control, opportunistic behaviours, closed structures, security issues, and building important collaborative relationships to better information sharing and ultimately improve

their competitive edge. It is worth pointing out that no matter how collaborative the relationship, it still needs to run on some form of transactional exchange.

Additionally, despite their great care and attention in establishing and maintaining relationships with buyers and between suppliers, both UK and Nigerian SMEs fail to reap the expected benefits in terms of better B2B relationships and ultimately better competitive edge.

Generally, the study highlights that SCM, RM, and social media are intertwined. As such, managers of SMEs should be advised to adopt a collaborative approach to the use of social media and management of relationships with and between supply chain members, rather than viewing them separately. Likewise, when it comes to supporting and constraining factors, it seems evident that some supporting factors such as infrastructure and (collaborative) relationship building benefit the usage of social media in SMEs and their supply chains. Subsequently, managers of SMEs should be recommended to place a particular emphasis on building better infrastructure in terms of providing easier access to the internet, allowing the use of multiple devices in their countries and improving B2B relationships.

Finally, the UK and Nigerian SMEs are likely to pay more attention to the use of social media applications (e.g. Facebook, Twitter and LinkedIn in this order) as an informal way of building and sustaining collaborative relationships with buyers and between suppliers to improve their information sharing, collaboration and ultimately their competitiveness. Many studies have argued that the use of IT can influence competitive advantage (Porter, 1985c; Powell and Dent-Micallef, 1997; Gimenez and Ventura, 2003). However, this study argues that context is important. That is, the use of social media will or will not be necessarily critical for improving collaborative relationships and information sharing at all times. This study recommends that whilst it would be beneficial for SMEs in competitive, innovative and fast-paced environments that are accepting of technology to use social media in their supply chains, it is also evident from this study that an overly exerted power and control can erode any use or benefits that will be obtained from the use of social media, especially when trust is limited. Against this background, although some previous studies have recommended that social media improves their competitive advantage (e.g. Alikilic and Atabek, 2012), this research recommends that use of social media in supply chains might not be justified if the SMEs environment is not complex (or fast-paced) and if collaborative relationships already exist. Therefore, SMEs in a fast pace and competitive environments, need to exercise

caution in the way they perceive that the use of social media in supply chains can improve collaborative relationships to achieve a competitive edge.

In addition to supporting interactions, social media also provides firms of supply chain a tool/platform to build collaborative relationships and share information, when they gain access to and connect with preexisting supply chain members. However, the very nature of relationships makes social media use in supply chain difficult. SMEs must achieve a balance between the need to ensure trust in B2B relationships and the need to use social media to connect with supply chain members. Therefore, the challenges include the nature of relationships, inadequate technological infrastructure (such as fixed connectivity), power and control; privacy and security issues; lack of innovativeness; dedicated resources and the nature of the sector. In summary, these times of intense competition and political uncertainty can be particularly hard on SMEs. Building and sustaining existing B2B relationships might offer extra security and better competitive advantage for the SME. The balance to strive for is taking control of B2B relationships in Supply chain with the same level of attention and focus as their transactional exchanges.

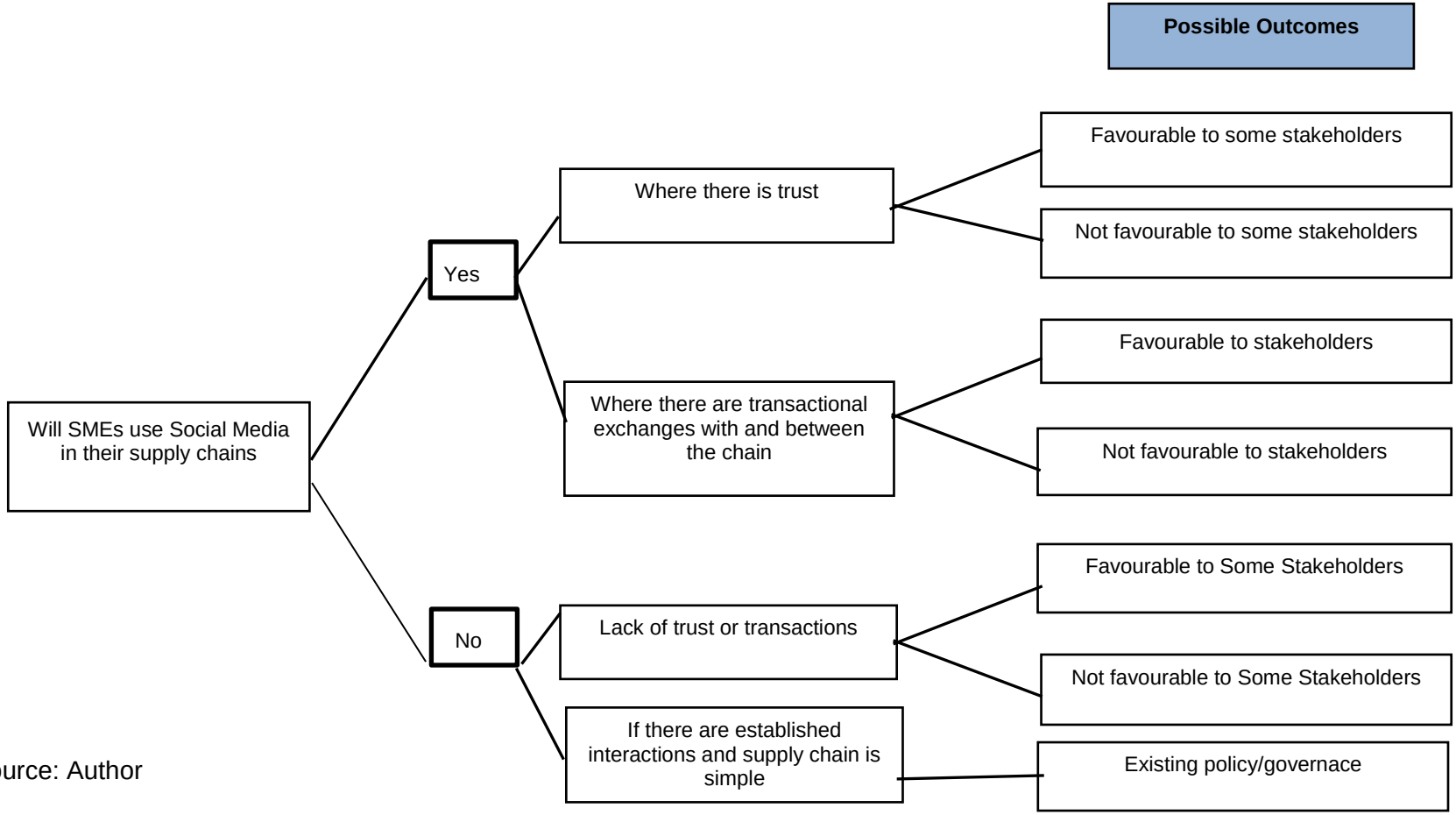
6.4.2.1 To use or not to use social media in supply chains by SMEs

On a social level, there is no doubt that social media has helped to break some interaction barriers formally caused by geographic location or time restriction (Ngai et al., 2015). However, many studies have argued that social media is the driving force for all business, social and environmental success (Savitz, 2013). This deterministic view that is echoed in many marketing, communications and IS literature. However, this study argues that the context is crucial, in other words, social media use may or may not be needful for all B2B relationships at all times. On the one hand, this study recommends that the use of social media in supply chains could be beneficial for some SMEs and their B2B relationships, benefits like increased interactions, information sharing, and collaborations which can ultimately offer a better competitive advantage. On the other hand, it is noticeable from this study as well that these benefits can easily be eroded by other multiple factors like their environment, limited resources, lack of innovativeness, poor infrastructure and control. Although many prior studies have advocated high social media usage (Kaplan and Haenlien, 2010; Stephen and Toubia, 2010), this study recommends that social media use may not be justified if an SME's supply chain is simple or if face-to-face interactions are usually preferred by SMEs and their supply chain firms and/or if the environment they operate does not require such use. Overall, the use of social media can have both positive and negative impact on B2B relationships

in supply chains. Thus, SMEs need to exercise caution in the way they use social media in supply chains as the human aspects of face-2-face interactions such as nonverbal clues (like facial expressions cannot be observed and interpreted), are removed from social media. Thus. The use of social media does not serve as a replacement but should complement face-to-face interactions.

In addition, trust is required to support social media use by SMEs and their supply chain firms to improve information sharing and better collaborative relationship and ultimately better competitive edge. However, for SMEs and supply chain firms with distrust, this study believes that it might be better technology-wise to use close and secure systems which serve as records or trail of information as these relationships tend to emphasize transactional exchanges and might be more adversarial than collaborative. For example, this study finds no data to support the notion that social media use will improve relationships with and between SMEs and their supply chain member which have trust issues or adversarial relationships as previous research suggests “social media can improve relationships” (e.g., HBR, 2010 p15). Thus, careful aligning social media use with SMEs in B2B relationships with considerable levels of trust might be required to improve interactions, better information sharing, improve collaborative relationships that might better their competitive edge. Additionally, a decision map summary in figure 6.1 has been provided that can aid SMEs in the decision-making process by the author.

Figure 6.1 An example of a social media decision tree showing the probability of various events occurring



Source: Author

6.4.3 Contribution to policy

There are several implications for private and public policy-makers for both developed and developing countries like the UK and Nigeria that can be drawn for the study's conclusion. For example, it can assist policymakers and agencies in providing appropriate support strategies that can assist SMEs to improve their competitive edge, build and sustain collaborative B2B relationships while protecting them from opportunistic B2B relationships.

Firstly, there is a growing need to improve the competitiveness of SMEs, be it as a single firm or collective (in their supply chains) specifically in view of the fact that competition is intensifying. This study suggests that one way to improve competitiveness is for SMEs to build their competitive edge using their B2B relationships. For example, the ever-increasing competitive environment stresses that SMEs improve their competitive advantage through existing relationships with (and between) their supply chains. To this end, SMEs need to exploit their innovativeness and innovative capabilities by using technological tools like social media to improve their relationships, to achieve such advantages. A necessary implication for policymakers is that awareness (or investment) is needed in key sectors, especially supply chains that support sectors like the high technology and creativity. Relationship management programs are also needed to develop substantive issues like trust in supply chains that support food industries, as SMEs need to have a significant trust to use informal technology like social media.

Additionally, given the surge in global competition from other countries (like the China and other emerging nations), the competitive positions currently held by the UK and Nigerian SMEs have come under severe challenge. Accordingly, this study suggests that SMEs from both countries should focus more on improving their supply chain before the use of social media for the purpose of improving competitive advantage can be useful and impactful. More specifically, this study proposes that corporate policymakers should be more sector specific in formulating SME strategies and also focus on the use of new interactive tools, mainly as SMEs are more efficient than larger business in using traditional methods like face to face interaction.

Instant interaction, lower cost (compared to traditional media), social influence (environment), sharing of useful information and collaboration can present enormous drivers (benefits) for the use of social media by SMEs and their supply chains. Accordingly, SMEs and their supply chains need to be more specific and selective in choosing their relationships. This study suggests that information sharing and

collaboration should be of top importance to SMEs and their supply chain as it can help improve their B2B relationships and better their competitive edge that can help handle both opportunities and challenges. Zhou and Benton (2007) suggest that information sharing can improve the current supply chain management environment. Lee et al. (1997) add that information sharing among supply chain members can also help to eliminate the challenges of the bullwhip effect. This study suggests that policymakers should prioritize and advocate information sharing for sustainable and collaboration supply chains as that would enable the SMEs and their supply chains to identify changes, opportunities, challenges and formulate precautionary measures to help deal with them effectively.

SMEs can influence and be influenced by their supply chains and the environment in which they operate in. This is critical because some SMEs often tend to experience severe barriers in relationships with larger businesses and their environment. As such, this study suggests that the use of social media in supply chains by SMEs can be challenged by the nature of relationships, the perceived usefulness, internet infrastructure, innovativeness and the environment (competitor and flexibility). In terms of the nature of relationships, this cannot be overstated as this study suggest that it is not the use of social media that influences relationships with and between supply chain members instead it is the relationship with and between supply chain members that influence the use of social media. As such, this study suggests that trust is an essential prerequisite for the (sustained) use of social media in supply chains by SMEs.

In terms of its perceived usefulness, there are overlapping uses of social media (like personal vs business purposes), and there are also evolving uses of social media like for e-commerce, information sharing, and building collaborative relationships. As such appropriate government ministries can take initiatives to provide support for some detrimental relationships that can arise. This is because SMEs are often at vulnerable or at risk of such detrimental relationships due to their size and lack of resources. However, this can be mitigated if governments can provide information (seminars and conferences) on how to select their supply chain, awareness on detrimental relationships, advice, and support to SMEs, represent SMEs interest in negotiations and lobbying.

In terms of infrastructure, the government could take steps to improve the existing speed, mobile and fixed connectivity and cost of internet connectivity. There is a pressing need to improve the cost and connectivity issues, particularly in Nigeria.

In terms of the environment, appropriate government initiatives should be taken to provide an environment that promotes less power but instead sustainable and flexible supply chains even in these times of increased competition. Sectors like the food industry should have both internal and external governance policy, practical relationship management skills and procedures as such skills can help many SMEs, especially those in relationships with larger firms in their supply chains that lead to the adversarial environment.

6.5 Research limitation

Despite these outstanding contributions, some limitations were identified for a variety of reasons. First, the focus of study raised some constraints. Triads were selected as the focus of this study as explained in Chapter 2, 3 & 4. Although a plethora of triadic literature exists, the depiction and classification of triad used in many of this literature suggest many dissimilarities and unique characteristics to the vignette of the triad (e.g. Rossetti and Choi, 2008; Van der Valk and van Iwaarden, 2011). As a result, the SME triad (one buyer & two suppliers or one firm & two suppliers) used in this study is only one kind of triadic relationship in supply chains. It is worth noting that there are many other kinds of triads even in the supply chain context. As a result, it is difficult to access and target a uniform triad.

The second limitation concerns the sample (participant) representative of 18 interviews conducted across several business sectors in the UK and Nigeria. The sample may not be representative enough as only 7 SMEs were sampled from the total UK SME population estimated to be 5.4 million businesses at the start of 2016. The small sample size prevented the use of rigorous quantitative statistical tests like structural equation models and would not meet the requirement for multiple regression analysis. As a result, the study may be regarded as exploratory, and be used as a basis for further deepened research with relatively large data sets.

Perhaps another serious limitation of this study was its focus on only three sectors. This would preclude the generalization of findings to other industries like the financial services, construction, and public sectors. Although, data was gathered from multiple sources (buyers and suppliers), to reduce bias and offer a balanced view. Future research should strive to gather a larger data from firms across whole supply chains from other sectors. In addition, it may be useful to examine the variations between sectors and locations more closely.

Another limitation is that the primary data from semi-structured interviews used in this study is limited to the selected countries (the UK and Nigeria). It may be advantageous to conduct interviews over a wider geographical range to reflect a broader range of differences and similarities in trends. Additionally, the current study focused on social media platforms like Twitter, LinkedIn, and Facebook without investigating other platforms like WhatsApp which were mentioned by some participants. The knowledge of other social media applications may be a useful complement to the present study of SMEs. However, had this been added, it is worth mentioning that the research workload would have been more time-consuming.

Although social media use has been studied in a number of other contexts such as marketing, this study represents a fresh attempt to further explore the scope of social media use to supply chains particularly to SMEs and B2B relationships. As such, its current usage, benefits, challenges, analytics and likely impact and outcomes have added both empirical and theoretical insights to the existing literature on social media. Nevertheless, it is vital that before any generalization is made, the theoretic lens/model is replicated in different samples. However, the sample used in this study consists of few SMEs and larger firms located in the United Kingdom and Nigerian economy. A larger sample and samples from other economies may be explored for replication if desired.

Lastly, the use of social media in supply chains is relatively new or in its early stages as such additional journal articles will continue to surface. The fast-paced nature of social media means that information needs to be updated continuously.

6.6 Future research direction

These are the recommendations for future research based on the outcomes of this study.

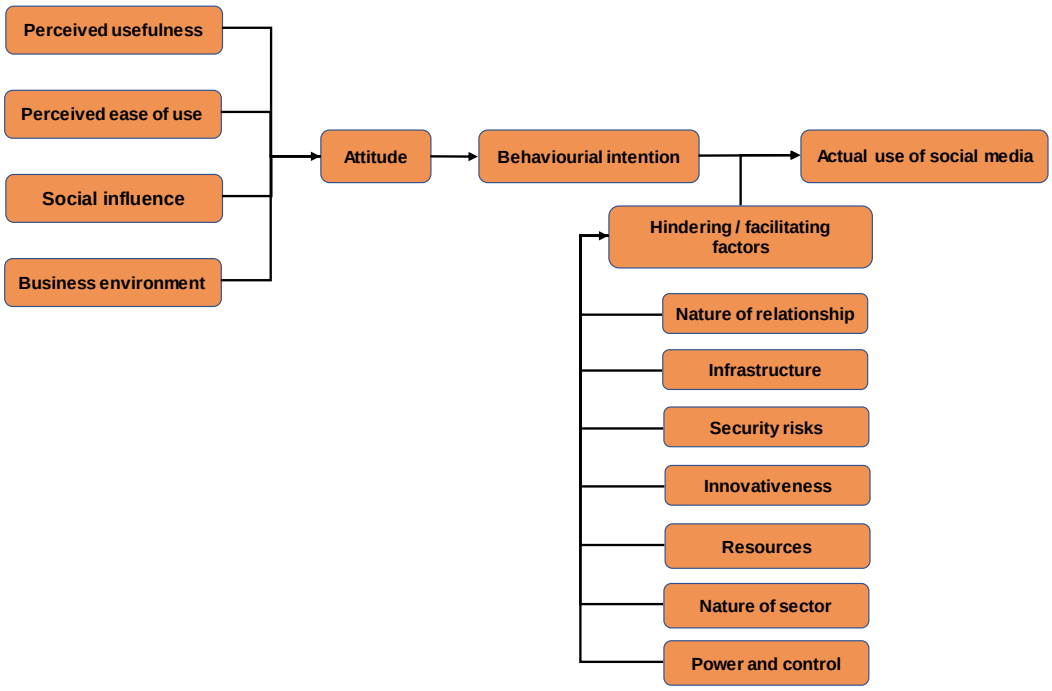
1. Other social media platforms such as WhatsApp, Google+ and Yammer (private social media platforms) can be explored further for any possible modifications to this study.
2. The study can extend to other sectors (e.g., construction, retail and financial service sectors) to ascertain their level of social media usage in the UK and Nigeria. A longitudinal study between SMEs and large firms in other sectors will provide insights into any differences. Additionally, it may be valuable to study the variations between the industries carefully.

3. The findings on the impact of social media are significant. It would be interesting to know the influence of dedicated staff on social media in larger firms.

4. Further research can expand the number of businesses studied to include and other geographical locations as well.

5. Finally, other research methodologies such as survey or questionnaires can be advantageous to conduct a larger scale sample over a broad geographical range. In particular, quantitative methods can be used to test the model in Fig 6.2.

Figure 6.2: The use of social media in supply chain by SMEs



Source: My adaptation of TAM2 Model

6.7 Chapter summary

In conclusion, the aim of this study has been to shed light on the use of social media in supply chains by SMEs. In the first place, the use of social media has been extended to the context of supply chains. Secondly, the study found several factors that influence the use of social media in supply chains by SMEs. Thirdly, it was found that the use of social media by SMEs influence buyer-supplier and supplier-supplier relationships from an interactive and relational perspective. It is anticipated that results from this study will precipitate further research in this area and the managerial recommendations offered will be of interest to managers.

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APPENDICES

Appendix A 4.1: Interview questions for buyers

1) Theme: Supply Chain Relationship/ Relationship Management

a) How would you describe the relationship history between:
   I. Your company (insert name) and company Y (insert name)
   II. Your company (insert name) and company Z (insert name)
   III. company Y (insert name) and company Z (insert name)
b) How does your firm currently manage the relationships between:
   I. Your company (insert name) and company Y (insert name)
   II. Your company (insert name) and company Z (insert name)
   III. company Y (insert name) and company Z (insert name)
c) Has this relationship –in your view- changed over time? Why or Why not?
d) What are the key challenges in your relationship with company Y (insert name) and company Z (insert name)?
e) In your own view, what is your company's influence (if any) on the relationship between your firm Y (insert name) and firm Z (insert name) and vice versa?

2) Theme: Competitive advantage

a) How do you select your suppliers on projects? What are your criteria for selection?
b) How similar or different are the capabilities (unique strength) of company Y (insert name) and Z (insert name)?
c) How do these capabilities contribute to your firm performance?
d) In your view, what are the benefits of collaborating and sharing information with company Y (insert name) and Z (insert name)?
e) What are the key challenges in collaborating and sharing information with company Y (insert name) and Z (insert name)?

3) Theme: Technology Tool and Interactions

a) How does your company interact with:
   I. Firm Y (insert name) employees
   II. Firm Z (insert name) employees
b) Which is preferred? Which technology tools do you currently use to interact with them (emails, spreadsheets, meetings or visits)?

4) Theme: Use of social media

a. Which social media platform do you use and why?
b. How often does your firm use social media in its activities?
c. Is social media use limited to a limited amount of staff or do all the staff use social media
d. Can you mention specific social media tools and if their use differs? Can you explain that in more detail?
e. What factors, in your view, contributes/determines the use of social media? Is there any extent to which the use of social media in our personal lives affects business use?
f. To what extent does your firm apply social media in interacting with company Y (insert name) and Z (insert name) staff?
g. What are the benefits, if any, for using social media in facilitating better relationships and sharing of information? What are the challenges of using social media?
h. Based on your experience, how has social media used influenced the relationships between your firm and other supply chain members (company Y and Z)?

Appendix A 4.2: Interview questions for suppliers

1) Theme: Supply Chain Relationship/ Relationship Management

a. How would you describe the relationship history between:

I. Your company (insert name) and company X (insert name)
II. Your company (insert name) and company Z (insert name)
III. Company X (insert name) and company Z (insert name)

a. How does your firm currently manage the relationships between:
   I. Your company (insert name) and company X (insert name)
   II. Your company and company Z (insert name)
   III. Company X (insert name) and company Z (insert name)
b. Has this relationship –in your view- changed over time? Why or Why not?
c. What are the key challenges in your relationship with company X (insert name) and company Z (insert name)?
d. In your own view, what is your company's influence (if any) on the relationship between your firm X (insert name) and firm Z (insert name) and vice versa?

2) Theme: Competitive advantage

a. How do you select your projects? What are your criteria for selection?

e. How similar or different are the capabilities (unique strength) of company X (insert name) and Z (insert name)?
f. How do these capabilities contribute to your firm performance?
g. In your view, what are the benefits of collaborating and sharing information with company X (insert name) and Z (insert name)?
h. What are the key challenges in collaborating and sharing information with company X (insert name) and Z (insert name)?

3) Theme: Technology Tool and Interactions

a. How does your company interact with:

I. Firm X (insert name) employees
II. Firm Z (insert name) employees

b. Which is preferred? Which technology tools do you currently use to interact with them (emails, spreadsheets, meetings or visits)?

4) Theme: Use of social media

a) Which social media platform do you use and why?
b) How often does your firm use social media in its activities?
c) Is social media use limited to a limited amount of staff or do all the staff use social media
d) Can you mention specific social media tools and if their use differs? Can you explain that in more detail?
e) What factors, in your view, contributes/determines the use of social media? Is there any extent to which the use of Social Media in our personal lives affects business use?
f) To what extent does your firm apply social media in interacting with company Y (insert name) and Z (insert name) staff?
g) What are the benefits, if any, for using social media in facilitating better relationships and sharing of information? What are the challenges of using Social Media?
h) Based on your experience, how has social media used influenced the relationships between your firm and other supply chain members (company X and Z)?

Appendix A 4.3: Cover/Request letter

Leeds University Business School
Maurice Keyworth Building
University of Leeds
Leeds LS2 9JT

21/10/16

Dear Sir/Madam,

Reference: Request to Participate in Research into the Use of Social Media in Supply Chains by Small and Medium-sized Enterprises (SMEs).

I obtained your business details from Dr Alistair Norman who is my academic supervisor. I am a PhD student at Leeds University Business School, in the Management division. My research, entitled "*The use of social media in supply chains by SMEs,"* seeks to better understand the use of social media by SMEs from a supply chain context. The research also fulfils and is in line with the University of Leeds' contribution towards government's efforts to assist SMEs in improving their competitive advantage and business relationships. As such, information from this study might help UK SMEs to better understand and improve their competitive edge through collaborative relationships and information sharing.

You are kindly requested to grant an interview for approximately 30- 45 minutes or less. The interview appointment if granted is scheduled to meet the availability and convenience of the participant. The research timeframe requires that the interview is completed by the end of April 2016. Please find attached:

1. Information sheet on the research project
2. A consent letter.
3. An interview guide
4. A letter of introduction/recommendation (sample)

We are confident that your participation will provide a rare opportunity to gain valuable insight into the current research topic. We only request that participants should have at least one or more SMEs in their supply chain and as this is a three-way study, it is important that we are able to contact three businesses involved in business-to-business or supply chain relationships. Please be assured that all responses provided will be treated with the utmost confidence and according to the Data Protection Act requirements. Interviews will be audio recorded with the participant's permission. Results arising from the data collection will be anonymized, and a summary of key findings can be made available if desired. Please note that your participation is valuable even if your company does not use social media. You are of course, entirely free to discontinue your participation at any time prior to, or during the interview.

We would appreciate if you could indicate your consent to participate in the study by contacting me with the details below. Should you have any questions regarding the project, please do not hesitate to contact me. I look forward to exploring the opportunities this project provides, and I hope to have the pleasure of an interview. Thank you for taking the time to read this request.

Yours sincerely,

Esere Ovie
Project coordinator
Email: bneo@leeds.ac.uk
Mobile: +234 (0) 7494794875

Project advisors
Dr Nicola Shaw- Senior Lecturer in Operations Management (nes@lubs.leeds.ac.uk)
Dr Alistair Norman – Senior Lecturer in Information management and Director of Adaptation Information Management and Technology (AIMTech) Research (**an@lubs.leeds.ac.uk**)

Appendix A 4.4: Research information sheet

Dear Sir/Madam

Research title: The Use of Social Media in Supply Chain by small and medium-sized enterprises (SMEs).

You are being invited to take part in a research project. To aid your decision whether to participate, please find below a briefing on the research project. Kindly take time to read carefully and to ask questions where you require clarification. You can also contact us if you would like more information. Thanks.

Purpose of the Project

This study explores the use of social media in supply chains by SMEs. Small and medium-sized enterprises (SMEs) remain an important issue at the heart of the economic and social development of nations. This is due to the contributions (such as revenue, and employment) made by SMEs to ensure the competitiveness, growth and financial performance of their supply chains and nation. Given these and other benefits (or challenges) that SMEs face from the use of social media, scholars have exerted efforts into exploring the exploitation of social media by businesses. Whilst the use of social media in businesses has focused largely on marketing, little is known about this phenomenon from a supply chain context. The study, in particular, seeks to address how the use of social media SMEs affect relationships with and between their supply chain members. Using multiple cases, data from semi-structured interviews with a total of eighteen (n=18) businesses based in UK and Nigeria is analyzed. A total of six (n=6) cases are conducted focusing on businesses in a triadic (three-way) relationships, with a least one SME in their supply chain. The participating firms would be in the manufacturing (food), high technology (IT) and low technology (fashion) industries.

Why have I been chosen?

For this study, we require 18 firms in the UK and Nigeria. As this is a triadic (three-dimensional) study, participants have been purposefully selected to involve firms with at least one SME (businesses having between 0-249 employees) in their supply chains.

Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. You can still withdraw at any time without it affecting any benefits that you are entitled to in any way, and you do not have to give a reason.

What will happen to me if I take part?

You will be one of 18 participants in the study and will be interviewed for approximately 30-40 minutes. The interview will be audio recorded. The questions will be regarding how social media use by SMEs affects relationships with and between supply chain members. The Interview questions are open-ended in nature.

What are the possible benefits of taking part?

The research addresses important gaps in supply chain management, information management, relationship management and SME literature regarding queries on how the use of social media by SMEs affects relationships with and between supply chain members in the UK, and separately in Nigeria. This

project will address significant gaps in extant scholarly information on the use of social media and SMEs and delivers important recommendations for managers and public policy-makers.

Confidentiality

The information collected from you during the course of the research will be kept strictly confidential as required by law. Neither you nor your firm or partner firms will be able to be identified in any reports or publications. The information collected can be used in other publications pending further consent. If additional consent is not obtained before the conclusion of the project to keep the pseudonymised records, then they will be destroyed

What happens to the results of the research project?

Should the results of the research be published in conferences and/or scientific journals, be reassured that your identity will not be disclosed in any report or publication.

Who is organizing and funding the research?

The research is being conducted by the Leeds University Business School and is guided by its protocols for confidentiality.

Please contact for further Information:

PhD Researcher
Esere Ovie
Leeds University Business School
University of Leeds
Email: bneo@leeds.ac.uk
Mobile phone: 07494794875

Doctoral Supervisor
Dr Nicky Shaw
Leeds University Business School
University of Leeds
Email: N.E.Shaw@lubs.leeds.ac.uk
Telephone: +44 (0) 113 3436848

Doctoral Supervisor
Dr Alistair Norman
Leeds University Business School
University of Leeds
Email: **an@lubs.leeds.ac.uk**
Telephone: +44 (0)113 3437818

What do you do next?

Please proceed to sign the informed consent form should you choose to take part in the research. Thank you for taking the time to read through this information sheet.

Appendix A 4.5: Consent forms

Please initial the box if you agree with the statement to the left		
1.	I confirm that I have read and understand the information sheet/ letter explaining the above research project and I have had the opportunity to ask questions about the project.	
2.	I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without there being any negative consequences. In addition, should I not wish to answer any particular question or questions, I am free to decline.	
3.	I understand that I will not be able to withdraw information after data analysis has been concluded and write-up has begun.	
4.	I understand that my responses will be kept strictly confidential. I give permission for members of the research team to have access to my anonymised responses. I understand that my name will not be linked with the research materials, and I will not be identified or identifiable in the report or reports that result from the research. Data obtained will be pseudonymised, and if additional consent is not obtained before the conclusion of the research to keep the pseudonymised records, then the data will be destroyed. Interviews may be audio recorded subject to permission from the participant.	
5.	I agree with the data collected from me to be used in relevant future research in an anonymised form.	
6.	I agree to take part in the above research project and will inform the lead researcher should my contact details change.	

Participant's signature……Date……...

Researcher's name…….…….....

Researcher's signature……..Date…….

Appendix A 4.6: Additional Information

INTERVIEW GUIDE INTO THE USE OF SOCIAL MEDIA IN SUPPLY CHAINS BY SMES

Esere Ovie (Project Coordinator)
Dr Nicky Shaw (Research supervisor)
Dr Alistair Norman (Research supervisor)
Technology and Innovation Group (TIGr), Adaptation Information Management and Technology (AIM), Leeds Business School, Woodhouse Lane, Leeds, LS2 9JT

Interview Themes

The interview is based on the following themes representing the key topics underlying the key areas of interest in the research.

Supply chain relationships: Explores the three-way relationship between firms of a supply chain, how they are developed, the perceived advantages and disadvantages.

Relationship Management Explores the management of these relationships closely, the technology and tools used, the perceived relevance of interaction, collaboration and information sharing or otherwise.

Competitive advantage: Explores the firm's push to compete and the contributing environmental factors.

Environment: Examine the nature of the environment, culture and competitiveness

Social media usage: Explore the firm's use of social media, the likely effects on relationships between supply chain members.

The Dimension of enquiry

The enquiry list below will interrogate each of the themes above:

Current use/view of the theme: Understand the firm's present status with regards to the themes plus motivation for activities and its impact.

Benefits of the theme: Understand the impact of the themes on relationships and competitive advantage. Assess the importance of each party's contributions.

Challenges of the theme: Ascertain the push for these themes as well as challenges encountered.

Future intents

Triadic impact of the theme

Appendix A 4.7 Evolving templates

A priori themes

Chains of Inference	Themes	Authors / Articles
1. Supply Chain Relationship	a. Trust, dependency, Power and Control.	HBR (1998); Hsiao et al (2002); Sundtoft Hald et al (2009); Sahay (2003); Grandori and Soda (1995); Adamides et al (2008): Choi and Wu (2009), Benton and Maloni (2005); Hsiao et al (2002); Sundtoft Hald et al (2009); Li and Choi (2009); Williamson (2008): Adamides et al (2008); Wilding and Humphires (2006); Methusamy and White (2006); Choi and Krause (2006); Cox (2004); Wu and Choi (2005: 2009); Humphires and Wilding (2003); Grandori and Soda (1995); Harland et al (2004); Knight and Harland (2005): Skipper et al (2008); Goffin et al (2006); Maloni and Benton (1999): Frazier (1983): Lusch and Brown (1996): Moorman et al (1993): Mrogan and Hunt (1994): Cook (1997): Barney and Hansen (1994): Brenkert (1998): Mentzer et al (2000): Porter and Donthu (2008); Porter (1985): Cravens et al (1996): Wu et al (2004)
	b. The orientation of buyer-supplier relationship	Wu and Choi (2005): Stevens (1989): Dubois and Frediksson (2008): Berry et al. (2009): Akintoye et al. (2000): Bresen (2000)
	c. The orientation of supplier-supplier relationships	Choi and Wu (2009), Wu and Choi (2005), Dubois and Fredriksson (2008) & Obstfeld (2005); Li and Choi (2009) Wu and Choi (2005): Loforte (1991): Caplow (1959): Caplow (1968): Madhavan et al (2004): Mills (1954): Simmel (1950): Wuyts et al (2004): Walker et al (2005): Loforte (1991) : Lazzarini et al (2001): Lazzarini et al (2008)
	d. B2B interaction (formal and interpersonal)	Davis (1963): Lassar et al (1995): Gligor and Autry (2012); Chua et al (2009); Hsiao et al (2002); Goffin et al (2006): Chua et al (2009): Beck et al (2005): Castleman (2004): Zheng et al (2004): Heider (1958): Denzin (1989): Emmitt (2009); Lassar and Zinn (1995): Wilson et al (2009)
2. Exchange/ Transaction	a. Transactional exchange	Forrester 1958: Cook (1997): Danity et al 2001; Hingley 2001; Choi and Krause (2006); Samaddar et al (2006); Jammernegg and Kischka (2005); Harlan et al (2004); De Toni and Nassimbeni (1995); Grandori and Soda (1995); Ireland et al (2002); Garcia-Canal, et al (2003): Gravovetter (1995): Weber (1964): Williamson (1985): Williamson (1993): Gundlach et al (1995): Hoyt and Huq (2000)
	b. Contracting (Elusive and Inclusive)	Lambert et al (1996); Hsiao et al (2002): Somerby (1988): Ellram (1990): Lusch and Brown (1996): Spekman (1998): Rossetti and Choi (2005): Rossetti and Choi (2008): ACA (1999): Alderman and Ivory (2007): Cheng et al (2004): Cheng et al (2005): Cheng et al (2006a): Cheng et al (2006b): Green (1999): MacNeil (2000): Manley and Hampson (2000)
3. Competition and Competitive Advantage	a. Use of Relationship Management	Mentzel (1993): Berry (1983); Cox (2000): Cox (2004): Cheng et al (2004): Cheng et al (2005): Cheng et al (2006a): Cheng et al (2006b): Cheng et al (2007): Cox and Ireland (2002): Cox et al (2005): Gronroos (1996) : Gronroos (2002); Gronroos (2007): Gummesson (2001): Kale and Arditi (2001); Larson (1997): Sheth (1994): Day (2000): McDermott and Chan (1996)
	b. Use of Resources, Capabilities and strategies to reduce uncertainties and risk.	Ross (1998): Barney (1991), Ayers (1999): Cheng et al (2009): Imai (1986): Dolber et al (1998): Weiber and Kollmann (1998): Stalk (1988): Ayers (1999): Barney (1991): Croom (2001): Fox (1998); Loan- Clarke et al (2000): New and Mitropoulos (1995):
	c. Management of IT (innovativeness) and control	Obstfeld (2005): Powell and Dent-Micallef (1997): Bruns and Stalker (1994): Jassawall and Sashittal (1998): Khalfan and McDermott (2006): Walton (1985): Winch (2000): Alpar and Blaschke (2008): Mendonca and Sutton (2008): Prahalad and Krishnan (2008): Chesbrough (2003): Chesbrough (2006): Hippel (2005): Lambe and Spekman (1997): Weiber and Kollmann (1998): Rogers (2003): Strang and Soule (1998)
	d. Information Sharing or Information asymmetry	Mentzer et al (2001); Chua et al (2009); Johnsen et al (2000); Kemppainen and Vepsalainen (2003); Harland et al (2004); Harland et al (2001); Copper and Ellram (1990 & 1993): Lee et al (1997); Stank et al (2001); Naslud and Williamson 2010); Maloni and Benton (1999): Lee et al (2007): Urbany et al (1989) : Gruhl et al (2004): Nowell and Kelinberg (2008): Ayers (1999): Nelder and Skandalakis (1999): Guo (2006): Hayek (1945)
4. Social media Use	a. Internet Infrastructure	Chua et al. (2010); Premkumar and Roberts (1999):Golicic et al. (2002): Berry (2009): Greemstein and Feinman (2000): Hamill (1997)
	b. Appropriateness of social media	Matsura, (1991): Akintoye et al. (2000): Khazanchi (2005): Dais and Meyer (1998); Greemstein and Feinman (2000): Hoffman et al. (1995): Leskovec and Horvitz (2007): Ashcroft (2010a): Ashcroft (2010b):
	c. Overlapping and Evolving use of SM	HBR Analytic services report (2010); Petkovska-Mircevska and Markova (2013); Chua et al (2010);Rayport and Sviokla (1995): Chung and Kim (2008): Huberman et al (2005): Java (2007): Kempe et al (2003): Newman and Park (2003): Zhao and Rosson (2009): Rajagopal (2008)
5. Environment	a. Orientation between buyer-supplier relationship	Wu and Choi (2005): Stevens (1989): Dubois and Frediksson (2008): Berry et al. (2009): Akintoye et al. (2000): Bresen (2000)
	b. Differences in Market	Forrester (1958): Burt (1992): Briggs (1998), Lambert et al (1996); Harland (1996): Lambert et al (1996), Premkumar and Roberts (1999): Boso et al (2013): Ching and Ellis (2004): Chong (2006): Galloway and Mochrie (2005): Williamson (1975): Forrester (1958): Cravens et al (1996): Sanchez (1993): King et al (2010)
	c. Business Size/ supplier /buyer Power/ Risk	Porter (1985): Cravens et al (1996): Hingley (2001): Boso et al (2013); Burke (2005); Levenburg (2005): Premkumar and Roberts (1999); Burke (2005): Fillis et al (2004); Martin and Matlay (2003); Goffin et al (2006)

Initial template 1

Chains of Reference	Themes	Authors/Articles
1. **Competition and Competitive Advantage**	a. Use of Relationship Management	Mentzel (1993): Berry (1983); Cox (2000): Cox (2004): Cheng et al (2004): Cheng et al (2005): Cheng et al (2006a): Cheng et al (2006b): Cheng et al (2007): Cox and Ireland (2002): Cox et al (2005): Gronroos (1996) : Gronroos (2002); Gronroos (2007): Gummesson (2001): Kale and Arditi (2001); Larson (1997): Sheth (1995): Day (2000): McDermott and Chan (1996)
	b. Use of Resources, Capabilities, and strategies to reduce uncertainties and risk.	Ross (1998): Barney (1991), Ayers (1999): Cheng et al (2009): Imai (1986): Dolber et al (1998): Weiber and Kollmann (1998): Stalk (1988): Ayers (1999): Barney (1991): Croom (2001): Fox (1998); Loan- Clarke et al (2000): New and Mitropoulos (1995):
	c. Management of IT (innovativeness) and control	Obstfeld (2005): Powell and Dent-Micallef (1997): Bruns and Stalker (1994): Jassawall and Sashittal (1998): Khalfan and McDermott (2006): Walton (1985): Winch (2000): Mendonca and Sutton (2008): Prahalad and Krishnan (2008): Chesbrough (2003): Chesbrough (2006): Hippel (2005): Lambe and Spekman (1997): Weiber and Kollmann (1998): Rogers (2003): Strang and Soule (1998)
	d. Information Sharing or Information Misuse	Mentzer et al (2001); Chua et al (2009); Johnsen et al (2000); Kemppainen and Vepsalainen (2003); Harland et al (2004); Harland et al (2001); Copper and Ellram (1990 & 1993): Lee et al (1997); Stank et al (2001); Naslud and Williamson 2010); Maloni and Benton (2000): Lee et al (2007): Urbany et al (1989) : Gruhl et al (2004): Nowell and Kelinberg (2008): Ayers (1999): Nelder and Skandalakis (1999): Guo (2006): Hayek (1945)
2. Social Media Use	a. Internet Infrastructure	Chua et al. (2010); Premkumar and Roberts (1999): Golicic et al. (2002): Berry et al. (2009): Greemstein and Feinman (2000): Hamill (1997)
	b. Appropriateness of social media	Matsura, (1991): Akintoye et al. (2000): Khazanchi (2005): Dais and Meyer (1998); Greemstein and Feinman (2000): Hoffman et al. (1995): Leskovec and Horvitz (2007): Ashcroft (2010a):
	c. Overlapping and Evolving use of SM	HBR Analytic services report (2010); Petkovska-Mircevska and Markova (2013); Chua et al (2010);Rayport and Sviokla (1995): Chung and Kim (2008): Huberman et al (2005): Java (2007): Kempe et al (2003): Newman and Park (2003): Zhao and Rosson (2009): Rajagopal (2008)
3. **Environment**	a. Orientation between buyer-supplier relationship	Wu and Choi (2005): Stevens (1989): Dubois and Frediksson (2008): Berry et al. (2009): Akintoye et al. (2000): Bresen (2000)
	b. Differences in Market	Forrester (1958): Burt (1992): Briggs (1998), Lambert et al (1996); Harland (1996): Lambert et al (1996), Premkumar and Roberts (1999): Boso et al (2013): Ching and Ellis (2004): Chong (2006): Galloway and Mochrie (2005): Williamson (1975): Forrester (1958): Cravens et al (1996): Sanchez (1993): King et al (2010)
	c. Business Size/ supplier/buyer Power/ Risk	Porter (1985): Cravens et al (1996): Hingley (2001): Boso et al (2013); Burke (2005); Levenburg (2005): Premkumar and Roberts (1999); Burke (2005): Fillis et al (2004); Martin and Matlay (2003); Goffin et al (2006)
4. **Competition and Competitive Advantage**	a. Use of Relationship Management	Mentzel (1993): Berry (1983); Cox (2000): Cox (2004): Cheng et al (2004): Cheng et al (2005): Cheng et al (2006a): Cheng et al (2006b): Cheng et al (2007): Cox and Ireland (2002): Cox et al (2005): Gronroos (1996) : Gronroos (2002); Gronroos (2007): Gummesson (2001): Kale and Arditi (2001); Larson (1997): Sheth (1995): Day (2000): McDermott and Chan (1996)
	b. Use of Resources, Capabilities, and strategies to reduce uncertainties and risk.	Ross (1998): Barney (1991), Ayers (1999): Cheng et al (2009): Imai (1986): Dolber et al (1998): Weiber and Kollmann (1998): Stalk (1988): Ayers (1999): Barney (1991): Croom (2001): Fox (1998); Loan- Clarke et al (2000): New and Mitropoulos (1995):
	c. Management of IT (innovativeness) and control	Obstfeld (2005): Powell and Dent-Micallef (1997): Bruns and Stalker (1994): Jassawall and Sashittal (1998): Khalfan and McDermott (2006): Walton (1985): Winch (2000): Mendonca and Sutton (2008): Prahalad and Krishnan (2008): Chesbrough (2003): Chesbrough (2006): Hippel (2005): Lambe and Spekman (1997): Weiber and Kollmann (1998): Rogers (2003): Strang and Soule (1998)
	d. Information Sharing or Information Misuse	Mentzer et al (2001); Chua et al (2009); Johnsen et al (2000); Kemppainen and Vepsalainen (2003); Harland et al (2004); Harland et al (2001); Copper and Ellram (1990 & 1993): Lee et al (1997); Stank et al (2001); Naslud and Williamson 2010); Maloni and Benton (2000): Lee et al (2007): Urbany et al (1989) : Gruhl et al (2004): Nowell and Kelinberg (2008): Ayers (1999): Nelder and Skandalakis (1999): Guo (2006): Hayek (1945)
5. **Social media use**	a. Internet Infrastructure	Chua et al. (2010); Premkumar and Roberts (1999): Golicic et al. (2002): Berry et al. (2009): Greemstein and Feinman (2000): Hamill (1997)
	b. Appropriateness of social media	Matsura, (1991): Akintoye et al. (2000): Khazanchi (2005): Dais and Meyer (1998); Greemstein and Feinman (2000): Hoffman et al. (1995): Leskovec and Horvitz (2007): Ashcroft (2010a):
	c. Overlapping and Evolving use of SM	HBR Analytic services report (2010); Petkovska-Mircevska and Markova (2013); Chua et al (2010);Rayport and Sviokla (1995): Chung and Kim (2008): Huberman et al (2005): Java (2007): Kempe et al (2003): Newman and Park (2003): Zhao and Rosson (2009): Rajagopal (2008)

Template 2

Themes	Subthemes	Authors
1. Supply Chain Relationship	a. Trust, Power - Dependence, and Control	HBR (1998); Hsiao et al (2002); Sundtoft Hald et al (2009); Sahay (2003); Grandori and Soda (1995); Adamides et al (2008): Choi and Wu (2009), Benton and Maloni (2005); Hsiao et al (2002); Sundtoft Hald et al (2009); Li and Choi (2009); Williamson (2008): Adamides et al (2008); Wilding and Humphires (2006); Methusamy and White (2006); Choi and Krause (2006); Cox (2004); Wu and Choi (2005: 2009); Humphires and Wilding (2003); Grandori and Soda (1995); Harland et al (2004); Knight and Harland (2005): Skipper et al (2008); Goffin et al (2006); Maloni and Benton (1999): Frazier (1983): Lusch and Brown (1996): Moorman et al (1993): Mrogan and Hunt (1994): Cook (1997): Barney and Hansen (1994): Brenkert (1998): Mentzer et al (2000): Porter and Donthu (2008); Porter (1985): Cravens et al (1996): Wu et al (2004)
	b. Triadic relationships (the impact of vertical and horizontal ties between buyer-supplier and supplier- supplier)	Choi and Wu (2009), Wu and Choi (2005), Dubois and Fredriksson (2008) & Obstfeld (2005); Li and Choi (2009) Wu and Choi (2005): Loforte (1991): Caplow (1959): Caplow (1968): Madhavan et al (2004): Mills (1954): Simmel (1950): Wuyts et al (2004): Walker et al (2005): Loforte (1991) : Lazzarini et al (2001): Lazzarini et al (2008)
	c. Interaction (formal and interpersonal) and communication	Davis (1963): Lassar et al (1995): Gligor and Autry (2012); Chua et al (2009); Hsiao et al (2002); Goffin et al (2006): Chua et al (2009): Beck et al (2005): Castleman (2004): Zheng et al (2004): Heider (1958): Denzin (1989): Emmitt (2009); Lassar and Zinn (1995): Wilson et al (2009)
2. Exchanges	a. Transactional exchange	Forrester 1958: Cook (1997): Danity et al 2001; Hingley 2001; Choi and Krause (2006); Samaddar et al (2006); Jammernegg and Kischka (2005); Harlan et al (2004); De toni and Nassimbeni (1995); Grandori and Soda (1995); Ireland et al (2002); Garcia-Canal, et al (2003): Gravovetter (1995): Weber (1964): Williamson (1971): Williamson (1985): Williamson (1993): Gundlach et al (1995): Hoyt and Huq (2000)
	b. Information Sharing and Overload	Mentzer et al (2001); Chua et al (2009); Johnsen et al (2000); Kemppainen and Vepsalainen (2003); Harland et al (2004); Harland et al (2001); Copper and Ellram (1990 & 1993): Lee et al (1997); Stank et al (2001); Naslud and Williamson 2010); Maloni and Benton (1999): Lee et al (2007): Urbany et al (1989) : Gruhl et al (2004): Nowell and Kelinberg (2008): Ayers (1999): Nelder and Skandalakis (1999): Guo (2006): Hayek (1945); Cheng et al 2001
	c. Contracting (Elusive and Inclusive)	Lambert et al (1996); Hsiao et al (2002): Somerby (1988): Ellram (1990): Lusch and Brown (1996): Spekman (1998): Rossetti and Choi (2005): Rossetti and Choi (2008): ACA (1999): Alderman and Ivory (2007): Cheng et al (2004): Cheng et al (2005): Cheng et al (2006a): Cheng et al (2006b): Green (1999): MacNeil (2000): Manley and Hampson (2000): Williamson (1998)
3. Competitive Advantage	a. Use of Relationship Management	Mentzel (1993): Berry (1983); Cox (2000): Cox (2004): Cheng et al (2004): Cheng et al (2005): Cheng et al (2006a): Cheng et al (2006b): Cheng et al (2007): Cox and Ireland (2002): Cox et al (2005): Gronroos (1996) : Gronroos (2002); Gronroos (2007): Gummesson (2001): Kale and Arditi (2001); Larson (1997): Sheth (1994): Day (2000): McDermott and Chan (1996): Hingley (2001)
	b. Use of Resources, Capabilities and strategies to reduce uncertainties and risk.	Ross (1998): Barney (1991), Ayers (1999): Cheng et al (2009): Imai (1986): Dolber et al (1998): Weiber and Kollmann (1998): Stalk (1988): Ayers (1999): Barney (1991): Croom (2001): Fox (1998); Loan- Clarke et al (2000): New and Mitropoulos (1995): Koops et al (2002)
	c. Management of IT (innovativeness) and control	Obstfeld (2005): Powell and Dent-Micallef (1997): Bruns and Stalker (1994): Jassawall and Sashittal (1998): Khalfan and McDermott (2006): Walton (1985): Winch (2000): Alpar and Blaschke (2008): Mendonca and Sutton (2008): Prahalad and Krishnan (2008): Chesbrough (2003): Chesbrough (2006): Hippel (2005): Lambe and Spekman (1997): Weiber and Kollmann (1998): Rogers (2003): Strang and Soule (1998): Lazzarini et al (2008)
4. Information Technology Use	a. Technological Infrastructure (connectivity)	Chua et al. (2010); Premkumar and Roberts (1999):Golicic et al. (2002): Berry (2009): Greemstein and Feinman (2000): Hamill (1997): Chua et al. (2012);
	b. Appropriateness of technology- (Speed)	Matsura, (1991): Akintoye et al. (2000): Khazanchi (2005): Dais and Meyer (1998); Greemstein and Feinman (2000): Hoffman et al. (1995): Leskovec and Horvitz (2007): Ashcroft (2010a): Ashcroft (2010b): Khazanchi (2005
	c. Overlapping and Evolving use of SM	HBR Analytic services report (2010); Petkovska-Mircevska and Markova (2013); Chua et al (2010);Rayport and Sviokla (1995): Chung and Kim (2008): Huberman et al (2005): Java (2007): Kempe et al (2003): Newman and Park (2003): Zhao and Rosson (2009): Rajagopal (2008)
5. Environment	a. Competition and Collaboration	Wu and Choi (2005): Stevens (1989): Dubois and Frediksson (2008): Berry et al. (2009): Akintoye et al. (2000): Bresen (2000): Berry et al. (2009)
	b. Differences in Market Structures	Forrester (1958): Burt (1992): Briggs (1998), Lambert et al (1996); Harland (1996): Lambert et al (1996), Premkumar and Roberts (1999): Boso et al (2013): Ching and Ellis (2004): Chong (2006): Galloway and Mochrie (2005): Williamson (1975): Forrester (1958): Cravens et al (1996): Sanchez (1993): King et al (2010): Poole et al (1998)
	c. Business Size/ supplier/buyer Power	Porter (1985): Cravens et al (1996): Hingley (2001): Boso et al (2013); Burke (2005); Levenburg (2005): Premkumar and Roberts (1999); Burke (2005): Fillis et al (2004); Martin and Matlay (2003); Goffin et al (2006): Hingley (2001)

Template 3

Themes	Subthemes	Authors
1. Supply Chain Relationship	a. Trust,	HBR (1998); Hsiao et al (2002); Sundtoft Hald et al (2009); Sahay (2003); Grandori and Soda (1995); Adamides et al (2008): Choi and Wu (2009), Benton and Maloni (2005); Hsiao et al (2002); Sundtoft Hald et al (2009); Li and Choi (2009); Williamson (2008): Adamides et al (2008); Wilding and Humphires (2006); Methusamy and White (2006); Choi and Krause (2006); Cox (2004); Wu and Choi (2005: 2009); Humphires and Wilding (2003); Grandori and Soda (1995); Harland et al (2004); Knight and Harland (2005): Skipper et al (2008); Goffin et al (2006); Maloni and Benton (1999): Frazier (1983): Lusch and Brown (1996): Moorman et al (1993): Mrogan and Hunt (1994): Cook (1997): Barney and Hansen (1994): Brenkert (1998): Mentzer et al (2000): Porter and Donthu (2008); Porter (1985): Cravens et al (1996): Wu et al (2004)
	b. Orientation of relationships	Choi and Wu (2009), Wu and Choi (2005), Dubois and Fredriksson (2008) & Obstfeld (2005); Li and Choi (2009) Wu and Choi (2005): Loforte (1991): Caplow (1959): Caplow (1968): Madhavan et al (2004): Mills (1954): Simmel (1950): Wuyts et al (2004): Walker et al (2005): Loforte (1991) : Lazzarini et al (2001): Lazzarini et al (2008)
	c. Power and influence	Davis (1963): Lassar et al (1995): Gligor and Autry (2012); Chua et al (2009); Hsiao et al (2002); Goffin et al (2006): Chua et al (2009): Beck et al (2005): Castleman (2004): Zheng et al (2004): Heider (1958): Denzin (1989): Emmitt (2009); Lassar and Zinn (1995): Wilson et al (2009)
2. Exchanges	a. Transactional exchange	Forrester 1958: Cook (1997): Danity et al 2001; Hingley 2001; Choi and Krause (2006); Samaddar et al (2006); Jammernegg and Kischka (2005); Harlan et al (2004); De toni and Nassimbeni (1995); Grandori and Soda (1995); Ireland et al (2002); Garcia-Canal, et al (2003): Gravovetter (1995): Weber (1964): Williamson (1971): Williamson (1985): Williamson (1993): Gundlach et al (1995): Hoyt and Huq (2000)
	b. Information Sharing and hoarding	Mentzer et al (2001); Chua et al (2009); Johnsen et al (2000); Kemppainen and Vepsalainen (2003); Harland et al (2004); Harland et al (2001); Copper and Ellram (1990 & 1993): Lee et al (1997); Stank et al (2001); Naslud and Williamson 2010); Maloni and Benton (1999): Lee et al (2007): Urbany et al (1989) : Gruhl et al (2004): Nowell and Kelinberg (2008): Ayers (1999): Nelder and Skandalakis (1999): Guo (2006): Hayek (1945); Cheng et al 2001
	c. Contracting (Elusive and Inclusive)	Lambert et al (1996); Hsiao et al (2002): Somerby (1988): Ellram (1990): Lusch and Brown (1996): Spekman (1998): Rossetti and Choi (2005): Rossetti and Choi (2008): ACA (1999): Alderman and Ivory (2007): Cheng et al (2004): Cheng et al (2005): Cheng et al (2006a): Cheng et al (2006b): Green (1999): MacNeil (2000): Manley and Hampson (2000): Williamson (1998)
3. Competitive Advantage	a. Use of Relationship Management formal and informal	Mentzel (1993): Berry (1983); Cox (2000): Cox (2004): Cheng et al (2004): Cheng et al (2005): Cheng et al (2006a): Cheng et al (2006b): Cheng et al (2007): Cox and Ireland (2002): Cox et al (2005): Gronroos (1996) : Gronroos (2002); Gronroos (2007): Gummesson (2001): Kale and Arditi (2001); Larson (1997): Sheth (1994): Day (2000): McDermott and Chan (1996): Hingley (2001)
	b. Use of Resources, Capabilities	Ross (1998): Barney (1991), Ayers (1999): Cheng et al (2009): Imai (1986): Dolber et al (1998): Weiber and Kollmann (1998): Stalk (1988): Ayers (1999): Barney (1991): Croom (2001): Fox (1998); Loan- Clarke et al (2000): New and Mitropoulos (1995): Koops et al (2002)
	c. innovativeness	Obstfeld (2005): Powell and Dent-Micallef (1997): Bruns and Stalker (1994): Jassawall and Sashittal (1998): Khalfan and McDermott (2006): Walton (1985): Winch (2000): Alpar and Blaschke (2008): Mendonca and Sutton (2008): Prahalad and Krishnan (2008): Chesbrough (2003): Chesbrough (2006): Hippel (2005): Lambe and Spekman (1997): Weiber and Kollmann (1998): Rogers (2003): Strang and Soule (1998): Lazzarini et al (2008)
4. SM Use	a. Internet Infrastructure (connectivity)	Chua et al. (2010); Premkumar and Roberts (1999):Golicic et al. (2002): Berry (2009): Greemstein and Feinman (2000): Hamill (1997): Chua et al. (2012);
	b. Perceived usefulness and ease of use	Matsura, (1991): Akintoye et al. (2000): Khazanchi (2005): Dais and Meyer (1998); Greemstein and Feinman (2000): Hoffman et al. (1995): Leskovec and Horvitz (2007): Ashcroft (2010a): Ashcroft (2010b): Khazanchi (2005
	c. Overlapping and Evolving use of SM	HBR Analytic services report (2010); Petkovska-Mircevska and Markova (2013); Chua et al (2010);Rayport and Sviokla (1995): Chung and Kim (2008): Huberman et al (2005): Java (2007): Kempe et al (2003): Newman and Park (2003): Zhao and Rosson (2009): Rajagopal (2008)
5. Environment	a. transactional and Collaboration	Wu and Choi (2005): Stevens (1989): Dubois and Frediksson (2008): Berry et al. (2009): Akintoye et al. (2000): Bresen (2000): Berry et al. (2009)
	b. Structures	Forrester (1958): Burt (1992): Briggs (1998), Lambert et al (1996); Harland (1996): Lambert et al (1996), Premkumar and Roberts (1999): Boso et al (2013): Ching and Ellis (2004): Chong (2006): Galloway and Mochrie (2005): Williamson (1975): Forrester (1958): Cravens et al (1996): Sanchez (1993): King et al (2010): Poole et al (1998)

Template 4

Themes	Sub-themes
1. Supply Chain Relationship	a. Trust,
	b. Power and control
	c. nature of relationships
2.Exchanges	a. Transactional exchange/ purchasing volumes
	b. Information Sharing and/or hoarding (information asymmetry)
3. Competitive Advantage	a. Use of Resources,
4. SM Use	a. internet Infrastructure (connectivity) and security risk
	perceived usefulness and ease of use
	c. Overlapping and Evolving use of SM
5. Environment	a. transactional and Collaboration
	b. Differences in Structures
	c. social influence

Template 5

1. Supply chain relationships III. Nature of relationships IV. Trust
2. Transactional exchanges II. Power and control
3. Competitive advantage II. Information sharing
4, Social media use V. Perceived usefulness VI. Perceived ease of use VII. Poor infrastructure VIII. Security issues
5. Environment III. Nature of the industry IV. Social factors
6. SMEs IV. Less formal structures V. Lack of dedicated staff and resources VI. Lack of innovativeness