



**The Use of Social Media by Exporting B2B SMEs:  
Implications for Performance**

**A thesis presented to the University of Strathclyde, in fulfilment of the  
requirements for the degree of Doctor of Philosophy**

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*Dedication*

*This thesis is dedicated to my mother, soul of my father and to my sister.*

## **Abstract**

The evolution of social media enables the creation of virtual customer environments where online communications have impacted increasingly on the marketing environment. As such, 21<sup>st</sup> century firms need to consider the many opportunities that social media present. Given the scant empirical evaluation of social media use in the SMEs Business-to-Business (B2B) context, this thesis aims to “empirically investigate SMEs B2B firms’ actual use of social media and how it impacts their export performance”. This study contributes to the emerging SMEs B2B digital marketing literature by determining, firstly, the factors that affect SMEs B2B firms using social media and, secondly, the mechanism through which SMEs B2B firms can potentially benefit from using social media in their exporting efforts. A number of hypotheses were developed building on the available literature. These hypotheses were examined using data from a sample of 277 British firms from different industries. Structural equation modelling was employed to test the hypotheses.

The results suggest that the usage of social media is affected significantly by perceived ease of use; perceived relative advantage; and subjective norms. Additionally, both the firm’s training and innovativeness enhance the relationship between subjective norms and social media use.

The results reveal, also, that the social media use influences export performance indirectly through the quality of international business contacts; understanding customers’ views and preferences; and understanding competition in different markets. However, the link between social media use and export performance is not indirectly influenced by the number of international business contacts and brand awareness. Furthermore, customer engagement enhances the relationships between social media use and the aforementioned factors through which social media use indirectly influences export performance. Cultural adaptation enhances, also, the relationships between understanding customers’ views and preferences; understanding competition in different markets; and export performance. Important implications for how SMEs B2B firms may benefit best from using social media for their exporting efforts and future research are derived from the findings.

## **Publications**

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# **CHAPTER ONE: INTRODUCTION**



# CHAPTER ONE

## INTRODUCTION

### 1.1 Introduction

As early as the 1950s, researchers, including Leavitt and Whisler (1958), explained the importance of Information Technology (IT) in the context of organisations and, since then, IT's capacity has continued to develop. As detailed by Porter and Millar (1985) and Nevo and Wade (2010), IT has reinvigorated competitive advantage; has altered industry structures; and has affected the whole organisational value chain. At the same time, both small and large organisations have found IT to be financially and operationally attainable (Brock, 2000a). The Internet is described as a unique and highly significant IT-derived development of worldwide communication framework and source of computational information based on computers (Morris and Ogan, 1996; December, 1996).

Brock (2010) described the altered technology represented by Web 2.0 and the increased popularity of social media, whereby the Internet became an interactive interface rather than merely a means of delivering information. Such interactivity permits users to run applications within a browser; to own, edit, and delete data on a website; and, generally, to exercise control. Open data exchange interfaces or Application Programming Interfaces (APIs) are employed to allow a website to incorporate the features of other websites in a process described by Oren et al. (2007) as "mash-up". Ultimately, these features facilitated the socialization of the Internet and transferred power to its users; this contrasted with the previous use of the Internet as a means solely for obtaining information in a passive way. A number of studies, including those by Wang et al. (2007), Chintagunta et al. (2010), and Kozinets et al. (2010), have demonstrated the overarching and significant impact of the social element of Web 2.0.

The use of different social media platforms (e.g., Facebook, LinkedIn, YouTube, Twitter) has grown significantly among consumers. According to the Nielsen (2012), people spend more time on social media than any other category of sites, with an

average of 121.18 minutes per day in 2012, with an increase of 37% compared to the previous year. Also, organisations are increasing their presence on multiple social media platforms (Michaelidou et al., 2011). As a result, many scholars have been motivated to study the use of social media to communicate with customers, improve their experience (Wilson et al., 2011), and social media strategy to reach consumers (Kietzmann et al., 2011). This marketing medium appears to be especially advantageous for Small and Medium-size Enterprises (SMEs) due to its moderate costs, and the flexibility in adapting social networks for both marketing and new product development (Pentina et al., 2012).

Despite the fact that the research into social media is still at an early stage, the literature to date has largely discussed the opportunities brought by social media from the Business-to-Customer (B2C) perspective (Wang et al., 2012; Tuten and Solomon, 2013; Nunan and Yeniciglu, 2013; Rowley, 2008). Although it has been demonstrated that there are many new opportunities for the Business-to-Business sector from using social media, due to its features which can enhance communication, interaction and collaboration (Jussila et al., 2011), more research on the use of social media in Business-to-Business (B2B) marketing is needed especially on its adoption and implications.

The factors that determine social media usage by SMEs B2B firms have been studied before (Pentina et al., 2012; Christodoulides et al., 2015, Siamagka et al., 2015), However, there is a need to have a better understanding of those factors that drive the use of social media within this context. The current study integrates both the Technology Acceptance Model (TAM) with Innovation Diffusion Theory (IDT) to investigate the factors that affect the use of social media in SMEs B2B firms. This integration can give a better understanding of the adoption of new technology since each theory (TAM, IDT) explores the process either from a factors perspective or from a process perspective, which is interrelated in the real situation. Additionally, our study extends TAM and IDT by incorporating training and innovativeness of the firm in order to investigate additional determinants of social media use in SMEs B2B firms.

Despite the substantial expansion of literature since 1996 on the Internet's function which has been found to be crucial in the emergence of international new ventures/born-global firms, facilitating small and medium-sized enterprise (SME) internationalisation (Zhang, et al., 2013; Gabrielsson and Gabrielsson, 2011; Colton et al., 2010; Vemuri and Siddiqi, 2009; Mathews and Healy, 2007; Loane, 2006; Nguyen and Barrett, 2006; Quelch and Klein, 1996; Hamill and Gregory, 1997; Petersen and Welch, 2003), and improving international supply-chain coordination, relationship learning, customer service management, and firm performance (Jean and Sinkovics, 2010; Liu et al., 2013; Trainor et al., 2013). All this research is grounded on Web 1.0. This is the retrospective term, conceived by researchers such as Levy (2004), to describe the basis of their research. DiNucci (1999) described the subsequent emergence around 2004 of Web 2.0 from the first stage of the World Wide Web (Brock, 2010). This was despite there being no standardized and globally recognized definition for this development. However, Web 2.0 depicts a key transformation in technology which may have more profound effects than Web 1.0 on firms' international business operations.

The potential influence of the firm's social media usage on export marketing strategies has been considered (Berthon et al., 2012; Okazaki and Taylor, 2013) as these applications may help to break down barriers of time and distance between the supply and demand sides (Constantinides et al., 2008). However, despite the promising potential of social media, especially for export-oriented companies, to date very limited attention has been paid to the relationship between social media usage and export performance (Alarcon et al., 2015). Therefore, this study attempts to fill this gap by investigating the extent to which actual social media usage impact exporting firms' performance. However, our study goes beyond the direct effect of social media use on export performance and tries to identify the mechanism through which additional determinants (number and quality of international business contacts, brand awareness, market knowledge, customer engagement and cultural adaptation) interacts in explaining export performance of SMEs B2B firms.

This chapter outlines the background of this study; identifies the literature gaps; and summarizes how these gaps were identified and approached on the basis of key

research questions. Also, this chapter introduces briefly the aim and scope of this study.

## **1.2 Study's Importance and Motivation**

This study is important because it aims to address some gaps in the marketing literature, especially in social media marketing. One of this study's main aims is to gain an understanding of the theoretical underpinning of B2B SMEs' use of social media. Several researchers, including Rogers (1995) and Bøving and Bøker (2003), found that the adoption of innovation, which is associated with something new, such as ideas, artefacts, or products, influences its subsequent acceptance and use. Social media provides quite novel and useful ways of interacting and collaborating, as well as ways to create new information and knowledge (Barker, 2008; Bernoff and Li, 2008). Accordingly, organisations' use of social media networks to support business is considered to be an innovation (Sarosa, 2012). It has been argued that, when compared with large companies, smaller companies are more suited to utilizing social media due to their flexibility and higher need to contain marketing communication costs (Pentina et al., 2012). However, social media is different from other technologies; whose adoption by B2B organisations has already been examined by innovation adoption theories like TAM and IDT, in that it does not require a large investment such as other technologies, more interactive, less complex when compared with other web-based applications, and it is not owned by companies (Siamagka et al., 2015; Christodoulides, 2009), hence, different findings in relation to those theories might be expected.

There is a deficiency in applying the existing IT theories in the field of social media marketing specially within SMEs B2B context, except from individual's perspective (Van Raaij and Schepers, 2008; Hossain and De Silva, 2009; Wang et al., 2010; Li et al., 2011; Macredie and Mijinyawa, 2011; Pinho and Soares, 2011; Zolkepli and Kamarulzaman, 2011), and the enterprise perspective within the workspace (Gunther et al., 2009). From a firm's marketing perspective, very few studies adopted IT theories (Pentina et al., 2012; Christodoulides et al., 2015, Siamagka et al., 2015) either by extending TAM to explore the role of social

influences in the context of SMEs (Pentina et al., 2012) or the role of organisational innovativeness and perceived barriers in the context of B2B SMEs (Christodoulides et al., 2015, Siamagka et al., 2015). Even though, none of the previous studies gave a better understanding view by integrating those theories. Integrating TAM with IDT was applied in the current research to investigate the factors that affect the use of social media in SMEs B2B firms. The integration of these theories can give us a better understanding of the adoption of new technology since each theory (TAM, IDT) explores the process either from a factors perspective or from a process perspective. The implementation of factors and processes are interrelated in the real situation and, hence, there is a need to combine both theories in order to gain a better understanding of the acceptance of social media.

Training is considered to be one of the important factors in the continuing use of new technology (Rogers, 1994; Fillis et al., 2003; Grandon and Pearson, 2004; Koh and Espinola, 2010; Spreadfast, 2012; Altimeter, 2013). As Paroutis and Al Saleh (2009) revealed, employees do not use social media platforms if they lack the knowledge to use them. Hill and Stewart (2000) found that small organisation lacked career structure which did not guarantee promotion and training. Therefore, small firms have difficulties in progressing and competing with larger firms whereby the employees have low motivation to perform. Hence, SMEs are frequently at a disadvantage relative to their larger counterparts regarding their abilities to attract, retain, and motivate the best human resources (Beaver and Hutchings, 2005).

Furthermore, the significant role of innovativeness in new technological applications has been studied in various contexts, such as web information services (Agarwal and Prasad, 1998), online shopping (Eastlick et al., 1999; Limayem et al., 2000; Bigne-Alcaniz et al., 2008), e-learning (Van Raaij and Schepers, 2008), and blogging (Wang et al., 2010). Those firms with a higher level of innovativeness are considered to be more likely to create favourable intentions to use the new technology (Agarwal et al., 1998; Eastlick et al., 1999; Luo et al., 2010; Lee et al., 2011). Although SMEs usually have limited financial and human resources, and, therefore, they face numerous challenges when implementing new technology (Nieto and Fernandez, 2005). The fact is that, when compared to larger firms, SMEs have a less hierarchical organisational structure and a close relationship between customers

and managers which is considered to be conducive to greater firm innovativeness (Angela, 2005); this may trigger SMEs willingness to explore innovations. Additionally, given that the B2B firms are slower than B2C in adopting social media (Michaelidou et al., 2011), hence, innovativeness may play an essential role in usage of social media within this context.

Despite the importance of both the firm's training and innovativeness, the majority of the literature displayed the previous factors (the firm's training and innovativeness) as obstacles/enhancers to implementing an innovation in different contexts other than social media (Morris and Venkatesh, 2000; Venkatesh and Davis, 2000; Yi et al., 2006; Tsou, 2012; Gumel and Othman, 2013; Mohammadi, 2015). Hence, there is a deficiency in explaining the mechanism through which both factors affect the use of social media. In the social media context, very few researchers studied those factors theoretically as obstacles/enhancers (Buehrer et al., 2005; Paroutis and Al Saleh, 2009; Koh and Espinola, 2010). Empirically, Siamagka et al. (2015) examined the moderating role of a firm's innovativeness on the relationships between perceived ease of use and perceived usefulness with the adoption of social media. The current study broadens that empirical evidence by considering the mechanism of the effect of both training and firm's innovativeness on the relationship between (perceived ease of use, perceived relative advantage, observability, and subjective norms) and usage of social media.

The study's second main aim is to understand the implications of using social media for exporting efforts as there is a great potential for using social media especially for export-oriented firms. However, to date, very limited attention has been paid to the relationship between social media use and export performance. Few studies have considered social media's influence on factors such as: the number and quality of contacts (e.g., Groza et al., 2012; Miller, 2012; Rodriguez et al., 2012; Stelzner, 2013); brand awareness (e.g., Mangold and Foulds, 2009; Michaelidou et al., 2011; Hutter and Hautz, 2013); understanding customers' views and preferences (e.g., Kietzmann et al., 2011; Soar, 2012; Jussila et al., 2014; Rodriguez et al., 2012); and understanding competition in different markets (e.g., Dey et al., 2011; He et al., 2013). These variables are important to organisations as shown in research findings which revealed that they had an impact on export performance (Kim and Kim, 2005;

Filatotchev et al., 2009; Musteen et al., 2010; Srinivasan et al., 2010; Yap and Md Zabid, 2011; Adidam et al., 2012). In the B2B context, both prospect development and customer acquisition are two central themes in sales process (Jussila et al., 2013; Rodriguez et al., 2012). Heinonen and Michelsson (2010) found that prospect initiation is challenging and continuous requirement in the context of B2B since business is dynamic which could be noticed in customers going out of business, switching to other suppliers, or deterioration in relationships. Additionally, sales professionals must collect detailed information about their customers in order to gain a better understanding of their needs, understanding their buying process, and, also, to gain a better understanding of specific markets more than B2C context (Habibi et al., 2015). In the B2B context, this market knowledge has a different characteristic due to the length of the sales cycle and complexity of the buying process (Rodriguez et al., 2012). Moreover, in the B2B context, characterized as being exposed to different risks compared to the B2C context, the brand's role is to reduce the perceived risk of a purchase which is likely to be stronger in B2B than B2C since the buyers face two kinds of risks: organisational risk; and personal risk (Hawes and Barnhouse, 1987; Mitchell, 1995). As many B2B firms focus on dissemination of the brand name and the logo without a comprehensive brand identity (Kotler and Pfoertsch, 2006), it is expected that the creation of brand awareness (i.e. the ability to recognize or recall a brand), has a unique role in B2B branding strategy since it reduces the buyer information costs and buyer perceived risk. However, there is no previous research, to the best of the researcher's knowledge, examined the mechanism through which those previously mentioned factors affect export performance which contributes to the knowledge of social media marketing.

Among those factors, which may affect the implications of using social media for export purposes, is customer engagement. There is a growing recognition that social media applications are useful in engaging customers (Cheung et al. 2011; Hollebeek, 2011; Aquino, 2012), and that customers have become more engaged with organisations (Baek et al., 2012; Pagani and Mirabello, 2012). The nature of customer engagement differs between the B2B and the B2C context; this makes the B2B context unique. Compared to end-customer context (B2C), where the emotional dimension is considered to be an essential element, B2B markets are inhabited by

more rational buyers (Hollebeek, 2011). Also, in the B2B context, the co-creation and innovation is more industry or process specific; however, in the B2C context it is more service or design oriented (Gronroos, 2011). Therefore, the role and importance of emotions in B2B engagement is likely to differ from that in the consumer context.

This interaction and engagement is a crucial element in improving not only the scope of firm's contacts and networking (Gorry and Westbrook, 2011; Rodriguez et al., 2012; Hudson and Thal, 2013) but, also, reaching qualified leads (Shih, 2009; Rodriguez et al., 2012). One of the most important perspectives of social media is the development of international network relationships; these help in conducting international activities (Alarcon et al., 2015). Additionally, interaction with consumers online, via social media platforms, can enhance companies' opportunities to make their brands more noticeable, and, in turn, enhance their brand's market position (Michaelidou et al., 2011; Zailskaite-Jakste and Kuvykaite, 2012; Hutter et al., 2013). When asked about the main objectives of their online social networking programmes, more than half of the marketing decision-makers indicated that improving brand awareness was among the most important objectives (Pfeffer et al., 2013) since this could have a significant impact on a brand's market share (Xie and Chen, 2014). This brand awareness is an important component of brand equity and, constantly, it is becoming more challenging to create, especially with the new media that are likely to develop in the future (Aaker, 1996). Moreover, the online engagement facilitates the company's ability to gain a better understanding of the marketplace (Singh et al., 2010; Sasch, 2012; Harrigan et al., 2015). However, despite its importance, to the best of the researcher's knowledge, the mechanism, by which customer engagement affects the implications of using social media, has not been studied before.

Realizing the differences in cultures is considered to be a key factor if companies are to be successful in international markets (Sousa et al., 2010; Guang and Trotter, 2012). Gathering and using export information has a positive effect on the firm's export performance (Souchon and Durden, 2003). For companies to use market knowledge effectively, communication is a vital aspect of marketing channels (Mohr and Nevin, 1990). Hence, export managers's acquirement of such cultural intelligence is a crucial element for firms' global success (Ang et al., 2006; Berthon



et al., 2012). This cross-cultural adaptation is more important for B2B firms where a social relationship is essential to establish trust and commitment between business partners (Singh et al., 2012). This relationship building becomes crucial to counteract the uncertainties associated with conducting digital global B2B business (Samiee and Walters, 2006). Although cultural adaptation is important, the mechanism, by which cultural adaptation affects export performance, has not been tested empirically in the context of social media.

### **1.3 Research Objectives**

In order to examine this topic, this thesis pursues the following objectives:

- To investigate the nature of the effects of perceived ease of use, perceived relative advantage, observability, and subjective norms on the SMEs B2B firms' use of social media for export purposes;
- To investigate the nature of the effects of both a firm's training and innovativeness on the use of social media;
- To investigate the relevant implications of the use of social media on the export process;
- To investigate the nature of the effects of the number and quality of international business contacts, brand awareness, understanding customers' views and preferences via social media, and understanding competition in different markets through social media on export performance, and;
- To investigate the nature of the effects of both customer engagement and cultural adaptation on the implications of SMEs B2B firms using social media for export purposes.

Based on the previous objectives, the following research questions emerge:

- What are the innovation characteristics that drive the SMEs B2B firms' use of social media for export purposes?

- Does the firm's training and innovativeness influence the relationship between the use of social media and the perceived ease of use, perceived usefulness, observability, and subjective norms? If so, how?
- How do the number of international business contacts, quality of international business contacts, brand awareness, understanding customers' views and preferences, and understanding competition in different markets interact in explaining export performance?
- Does customer engagement affect the relationship between the use of social media and the number of international business contacts, quality of international business contacts, brand awareness, understanding customers' views and preferences, and understanding competition in different markets?
- Does cultural adaptation affect the relationship between understanding customers' views and preferences and competition in different markets and export performance?

## **1.4 Thesis Structure**

The thesis contains five chapters. Chapter one starts with an introduction and the study's importance and motivation. This is followed by the research objectives. Finally, there is a brief description of each chapter's content. Chapter Two deals with the context and underlying theories of the study, followed by exporting and how social media can overcome obstacles to exporting and the idiosyncratic characteristics of SMEs' social media adoption and use. Chapter Two concludes with the developed conceptual framework; this allows SMEs B2B firms to understand the use and implications of using social media for export purposes. Chapter Three comprises four principal sections: namely, research philosophy; research approach; research methods; and research design. Chapter Four presents a preliminary analysis including a descriptive analysis of the respondents and firms' profiles and of the items of measured constructs. Also, it deals with data screening for some issues such as missing data, outliers, normality, and multicollinearity. This section is followed by evaluating the common method variance. Moreover, it presents the psychometric

properties of the constructs by conducting exploratory factor analysis and assessing the validity and reliability of the measures. This is followed by illustrating the results of assessing the proposed relationships in this study. Finally, the moderation effects of the following are investigated: experience of using social media; size of the firm; differences in country markets which the firm exports to; and type of industry which the firm belongs to. Chapter Five presents a summary of the results followed by a discussion of the findings of the research hypotheses. This section is followed by this study's academic contribution and practical implications. This chapter's final section discusses the limitations of the study and directions of future research.

**CHAPTER TWO:  
LITERATURE REVIEW**

# **Chapter Two**

## **Literature Review**

### **2.1 Introduction**

The chapter includes Social Media and Web 2.0, social media tools, Small and Medium-sized Enterprises (SMEs), Business-to-Business (B2B) firms, theories of adoption of Information Technology (IT) and the Management of Information Systems (MIS) in order to identify the factors which influence the use of new technology (social media) for a firm's internationalisation processes. It considers, also, how social media can overcome the obstacles to exporting goods and services and the SMEs' idiosyncratic characteristics in adopting and using social media. The chapter ends with the theoretical framework which the researcher developed for this study; it will allow SMEs to understand the implications of using social media for export purposes.

### **2.2 The Context and Underlying Theories of the Study**

#### **2.2.1 Social Media and Web 2.0**

Although there have been numerous definitions of Web 2.0 since O'Reilly generated it in 2005, there is still disagreement about the actual meaning of the term (Smith, et al., 2008; Kaplan and Haenlein, 2009; Safko and Brake, 2009) since using a common term helps to establish a common vision (Constantinides et al., 2008). As suggested by several researchers (Donath and Boyd, 2004; Tredinnick, 2006; Boulos and Wheeler, 2007; Dwivedi, et al., 2007; Lai and Turban, 2008; Warr, 2008; Harrison and Barthel, 2009; Lehtimaki et al., 2009), a technological approach can be taken to several of these definitions whereby Web 2.0 is thought of as a platform which permits users, within social networks, communities and virtual worlds, to communicate; to create content; and to share it. These definitions have been criticized since they offer only superficial descriptions of Web 2.0 while not referring

to the underpinning philosophy which claims the collective intelligence and wisdom of crowds whereby users play the leading role (Hogg et al., 2007).

Other definitions consider Web 2.0 from a social perspective; this refers to a new web-mediated communication which enables user-oriented, community building, collaborative, interaction, and social networking (Birdsall, 2007; Beer and Burrows, 2007; Anderson, 2007; Smith et al., 2008; Kaplan and Haenlein, 2009; Constantinides and Fountain, 2008; Frampton, 2008; Kangaset et al., 2007; Wesch, 2008; Hicks and Graber, 2009; Cormode and Krisnamurthy, 2008; Freedman, 2006).

Although, among others, Tredinnick (2006) disputed the relevance of the term, Web 2.0, due to its lack of novelty, Kaplan and Haenlein (2009) argued that this term represented a new approach whereby software developers and end-users implemented the World Wide Web as a collaborative platform for all users whereby content and applications were revised continuously. It is probably more useful to consider Web 2.0 as a progression from a conventional Web to an innovative Web (Millard and Ross, 2006; Barsky and Purdon, 2006; Miller, 2005; Lai and Turban, 2008).

Social media, which is this research's central concept, has been defined in a number of scientific articles. Kaplan and Haenlein (2009, p.61) defined 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". Smith et al. (2008, p.2) defined social media from the standpoint of sociological change initiated by technological change as being "collective goods produced through a computer mediated collective action". Additionally, Safko and Brake (2009, p.6) defined social media as "activities, practices, and behaviours among communities of people, who gather online to share information, knowledge, and opinions using conversational media".

Broadly speaking, the terms "Web 2.0" and "social media" are used interchangeably (e.g. Constantinides and Fountain, 2008; Safko and Brake, 2009; Kaplan and Haenlein, 2009). This is supported by Kaplan and Haenlein (2009) who reported that there appeared to be some uncertainty among managers and academics as to what precisely ought to fall under the term 'social media' and how this term

ought to be distinguished from the similar concepts of Web 2.0 and User-Generated Content (UGC). One reason for this disparity could be the definition of Web 2.0 from a social perspective. It can be considered that both terms are connected but, essentially, they are not interchangeable due to the marginal variations between them (Safko and Brake, 2009). Web 2.0 can be defined as a platform which allows users, within social networks, to communicate; to create content; and to share it while social media is considered to comprise internet-based applications, derived from the technological basis of Web 2.0, which facilitate the development and exchanging of UGC. For this study, the researcher adopted the definition presented by Kaplan and Haenlein (2009).

The innovation part of Web 2.0 provides the users with the possibility of creating, contributing and editing content (Tredinnick, 2006). Accordingly, consumers can participate directly in producing and distributing information through collaborative writing, sharing content, social networking and social bookmarking (De Pietro et al., 2012). Web 2.0 technologies allow consumers to exchange experiences or opinions with their own peers who rely on them more than the information published by website owners (Litvin et al., 2008; Constantinides and Fountain, 2008). Lehtimäki et al. (2009) argued, also, how novel Web 2.0 functionalities could help B2B firms to increase brand awareness, customer relationship management and to improve product development activities. Furthermore, through the use of Web 2.0, B2B firms can notify clients of their latest news and new products and acquire, also, new customers.

Social media offers many opportunities and advantages for both the communicator and, also, the recipient of the communication. From the marketing perspective, social media comprises an array of platforms through which interactions between individuals and entities, such as firms, are facilitated and disseminated (Köhler et al., 2011, Lueg and Finney, 2007, Lueg et al., 2006, Muratore, 2008; Zhang and Daugherty, 2009). These channels help to provide customers with a pool of knowledge and information (Constantinides and Fountain, 2008; Mangold and Faulds, 2009; Sarkkinen, 2009). This pool of information comes from sharing knowledge, network participation and sharing experiences (Kaplan and Haenlein, 2011; Bolotaeva and Cata, 2010; DiStaso et al., 2011). In addition, the use of social

media platforms helps to serve customers by actively handling their complaints and addressing their needs and concerns (Kaplan and Haenlein, 2011; Bolotaeva and Cata, 2010). Nowadays, customers are more loyal to firms which use social media to adapt to their customers' needs (Rapp et al., 2013).

Forrester (2007) argued that the use of social media represented the optimum method for marketers to communicate with their customers given that those consumers were likely to be heavy users of the Internet. These Social Network Sites (SNS), such as Facebook and LinkedIn, could be used for relationship and trust building (Howe, 2006; Piller, et al., 2012, Lehtimaki et al., 2009; Erdoğan and Çiçek, 2012). This creation of relationships is probably one of the most discussed attributes of social media platforms (Zandt, 2010). Curtis and Giamanco (2010) mentioned that social media might be particularly beneficial during the initial corporate-customer relationship which was a stage when awareness and building leads took place. Social media can be of value, also, to B2B companies seeking to identify potential sales partners (Michaelidou et al., 2011) and, in turn, supporting and maintaining their relationships with customers and suppliers. Breslauer and Smith (2009) supported this view since social media platforms provided another opportunity to build relationships with customers and suppliers. In today's markets, firms need to have strong relationships with their partners and open communications can be much easier through utilizing social media (Joshi, 2009).

Howe (2006) and Nair and Sidhu (2009) argued how the application of social media could boost the traffic to the company website, the dissemination of significant information and be more attractive to new customers. Companies can collect information about customers since it provides a wider environment to search for this information and to follow the competitors (Mangold and Faulds, 2009; Kaplan and Haenlein, 2010). In accordance with this view, Jussila et al. (2014) mentioned that B2B use of social media could support each company in identifying their customers' needs and in maintaining customer service. In addition, social media offers the possibility of gaining competitive intelligence by visiting competitors' websites, Facebook pages, Twitter and YouTube to learn about their products/services and their current strategies (Evans and King, 1999). Also, firms can increase brand awareness through viral marketing since companies can interact



easily with customers on social networks (Bolotaeva and Cata, 2010; Prahalad and Ramaswamy, 2004) and these provide customers with opportunities to share their opinions about the company's products (Lehtimaki et al., 2009). Social media has expanded rapidly in terms of the number of users and this offers the opportunity to reach a wide audience. In turn, it supports, also, a company's brand awareness and brand value (Michaelidou et al., 2011).

### **2.2.2 Social Media Tools**

Adapting Constantinides and Fountain's (2008) classification, the researcher proposes a basic classification based on the following application type:

#### **(1) Blogs and Podcasts**

Blogs originated in the mid-1990's and developed from individuals' posting online journals which, initially, were created manually. Blogs were one of the first and most popular types of Web 2.0 and contained many of its key concepts such as the collective production and sharing of content and new Internet policies (Hintikka, 2007). Lee et al. (2006, p.317) defined blogs as, "A blog- short for web log- is a web page that serves as a publicly accessible personal journal for an individual". Also, Singh et al. (2008, p.282) defined it as, "a blog consists of an online, web-based, chronologically organised entry on a multitude of subjects".

Blogs have specific features, one of these characteristics is the embedded function which allows comments to be made on each entry (Kolbitsch and Maurer, 2006; Rosenbloom, 2004; Shi et al., 2007; Trammell and Keshelashvili, 2005). This function enables open discussion and, hence, encourages dialogue between blog writers and their readers (Zerfass and Boelter, 2005). These blogs can be either text-based, audio-based, or video-based; the last of these are known as vlogs (Kaplan and Haenlein, 2010; Wunsch-Vincent and Vickery, 2007). Blog interaction is not restricted by geography and, usually, brings together disparate people who share features or interests (Dutta-Bergman, 2006). Hence, blogs exemplify the "consumer to consumer" communication environment.

Micro-blogging is another form of blogging with the same function; such blogs differ in that they are generally text-based and have a limited permitted number of characters (O'Connor, 2008). Chowdury et al. (2009, p.2170) defined such blogs as, "Micro-blogging is a new form of communication in which users can describe things of interest and express attitudes that they are willing to share with others in short posts". Twitter is the most popular micro-blogging application. Users of Twitter, described also as 'Tweeters' or 'Tweeterers', provide information on their current status by way of 'tweets'; these are short responses (of 140 characters or less) describing what the user is doing at that point in time (Gillin, 2008; Karpinski, 2009). The networks of people, who track the updates on the account, are referred to as "followers" (Alsever, 2009).

From the firms' perspective, blogs are a very commonly used tool for B2B companies (Simula et al., 2013), since they are considered to be "knowledge" blogs which contains industry trends, market data, research and technical developments (Lew, 2007). Additionally, these blogs, which are considered to be marketing communication channels, can be used for: publishing company news; sharing ideas with an external audience (Lee et al., 2006; Singh et al., 2008; Cass, 2007; Catalano, 2007); building the brand; long-term relationships with stakeholders; demonstrating a company's expertise within a field; and increasing the firm's reputation (Retteberg, 2008; Gillin, 2007). Further potential benefits include getting feedback on products and services; being a rapid, adaptable and cost effective method in the communication of corporate messages; humanisation of the company; and the possibility of reaching the target audiences at low cost (Kent, 2008; Catalano, 2007; Retteberg, 2008).

When it comes to companies' use of micro-blogging, this, like blogging, can be leveraged as external communication channels. Many of the B2B industry's early adopters use Twitter too (Simula et al., 2013). Micro-blogging can be used as an external channel to share news, thoughts and ideas (Chowdury et al., 2009; Finin et al., 2007; Gunther et al., 2009). For example, a range of benefits afforded by Twitter, include: the ability to reach current and potential consumers; managing customer relationships by establishing conversations with them; increasing brand recognition; establishing communication with influencers; updating companies

about the current market trends; and tracking competitors online (Kho, 2009; Karpinski, 2009; Mcivor, 2009; Jantsch, 2009).

A podcast is the term used to describe an audio file which may either be streamed or downloaded over the Internet and which contains generally either interviews, advertisements or other information. Podcast is an attractive social media tool for B2B marketers (Lehtimäki et al., 2009). This tool can be used, also, for marketing communication (Moran, 2008; Weber, 2007), by telling customers about new products and other industry news (Lehtimäki et al., 2009).

## **(2) Social Networks**

The capacity to develop a public or (semi-public) account on a restricted platform is afforded by the use of online services such as Social Network Sites (SNS) (Boyd and Ellison, 2008). Salmenkivi and Nyman (2007) asserted that, through their profiles, users could give others the impression of themselves which they wished and, having the opportunity to look at other users' profiles, could develop trust among users (Lehtimäki et al., 2009). Through SNS, individuals can meet and communicate virtually and build up relationships with people whom they might never have known offline (O'Connor, 2008; Wunsch-Vincent and Vickery, 2007; Rowland, 2007).

Facebook and LinkedIn are almost undoubtedly the best-known social networking sites. Facebook, which began in 2004, is rather more complicated than Twitter and users can develop long-lasting relationships with each other (Pearlman and Abram, 2010). Almost any individual, group or company can make their own Facebook page. In terms of business, Facebook has the advantage of a wide customer base to which most of the commercial clients belong already (Ghaffar and Tariq, 2010).

The other social network site is LinkedIn, which began in 2007, and is intended to allow users to connect with each other for business or career purposes such as finding employment and business networking opportunities (Pearlman and Abram, 2010). It allows small companies to present themselves in a clear and simple manner (Ghaffar and Tariq, 2010).

When it comes to business, SNS are not only valuable tools for individuals but, also, business can reap some benefits. Many B2B firms use Facebook, YouTube...etc. (Simula et al., 2013). LinkedIn, Facebook and Twitter are considered to be the key social media platforms for content marketing, market research and social networking which are prominent in B2B marketing activities (Brennan and Croft, 2012; Rodriguez et al., 2012). Percival (2008) and Gillen (2008) provided the examples of MySpace and Facebook as social networking platforms on which companies could create their own groups or pages which customers could join. Certain benefits of using this type of website include access to customers' personal details and obtaining feedback from them (Kim et al., 2010). These virtual communities, which ordinarily are very expensive to establish online, can be constructed using these platforms in the course of building relationships with customers (Percival, 2008; Gillin, 2008; Kaplan and Haenlein, 2010).

### **(3) Communities**

There are a number of different types of community such as the following:

- **Online Communities**

Kannan et al. (2007) stated that online communities had existed for a comparatively long time since they began with online discussions and cooperation among researchers during work on projects. Online communities comprise individuals with similar social requirements such as forums and message boards. The members contribute to the online community by providing information such as comments, feedback, and opinion (Tuban et al., 2002).

Online communities can be used, also, by firms. Firms can opt for only banner advertising in various online communities or they may set up their own communities. The online community can benefit B2B firms in: acquiring more feedback from customers; maintain relationships with customers; and increasing brand loyalty (Lehtimäki et al., 2009).

- **Content Communities**

In content communities, the most commonly shared content is photos, videos, PowerPoint presentations and text (Kaplan and Haenlein, 2010). These can be subdivided into the following:

- *Video sharing sites*

To date, YouTube is the most widely-used forum for sharing self-produced and promotional videos; YouTube is a free content-sharing site which was launched in 2005.

Viral videos can be used successfully used as marketing tools for a firm's product or service if their content is sufficiently interesting to viewers. A video, posted on YouTube, can contain, also, a link to the B2B firm's website (Lehtimäki et al., 2009).

- *Photo sharing sites*

Users can use photo sharing sites to tag their uploaded photos with specific keywords as well as adding captions and comments to these photos to enable them to be found with a search. Flickr is the most popular photo sharing-site and firms have begun recently to create their own groups on Flickr (Kaplan and Haenlein, 2010).

- **Wikis**

Wikis are software applications which allow many users to edit websites by adding or altering content (Moran, 2008). According to Tapscott and Williams (2008), wikis represent a first-rate technological platform for knowledge management. Also, marketers can use Wikis to discuss product plans; to solve problems; and to generate ideas (Moran, 2008).

- **Forums and Bulletin Boards**

Users are capable of sharing threads on various subjects and about products and services by communicating through message boards and forums. Forums offer consumers the opportunity to read other consumers' opinions and experiences and to write entries themselves on topics of interest to consumers (Henning-Thurau et

al., 2004). These forums and bulletin boards help B2B firms to acquire new customers and to communicate with customers (Lehtimäki et al., 2009).

#### **(4) Content Aggregator**

Content aggregators refer to RSS feeds, social bookmarking sites, widgets and other tagging services.

- **RSS feeds**

According to Moran (2008), an additional approach to direct marketing is taken when, without the need to supply personal information, users are required to subscribe to relevant content of interest. RSS feeds are examples of this type of subscription; this allows participating users to receive direct notifications from particular websites without the need to visit those websites. However, Lehtimäki et al. (2009) pointed out that B2B firms had not adopted the use of RSS feeds to any significant extent.

- **Social Bookmarking**

Through the use of social bookmarking, users can decide which news and stories obtain publicity on the web by either tagging or reviewing or bookmarking such news and stories to facilitate finding them. Marketers can tag posts which they have put on the Web, for instance blog postings with specific words so that users, looking for information about the given topic, will find the post in their search results (Moran, 2008). Delicious.com is one example of a social bookmarking site where users can store their bookmarks online (Lehtimäki et al., 2009).

- **Widgets**

Widgets are small applications which offer the user one utility or service such as a weather forecast (Lehtimäki et al., 2009). Widgets can be used by firms to build brands since they can offer accurate information about products (Pishevar, 2006).

#### **(5) Virtual Worlds**

Henttonen's (2008) description of a virtual world is a medium where users interrelate in real time. Kaplan and Haenlein (2010, p.64) defined virtual worlds as "platforms that replicate a three-dimensional environment in which users can appear in the form of personalized avatars and interact with each other as they

would in real life. In this sense, virtual worlds are probably the ultimate manifestation of social media, as they provide the highest level of social presence and media richness of all social media applications”. Club Penguin, Farmville, Google Earth, Second Life, TyGirlz, Webkinz and World of Warcraft are examples of well-known and widely used virtual worlds (Barnes, 2007, Henttonen, 2008; Messinger et al., 2008;).

Barnes (2007) found that, although current marketing in virtual worlds was consumer-based, it could be applied, also, to B2B companies for: advertising in these virtual worlds; obtaining feedback; and enabling online shopping. Similarly, Messinger et al. (2008) predicted the advent of B2B processes in virtual worlds which would assist manufacturer-supplier or manufacturer-retailer relationships.

According to Mangold and Faulds (2009), the rise of social media has meant that the tools and strategies for interacting with customers have changed considerably and that, nowadays, the majority of companies consider the use of social media to be a critical part of their marketing strategies. The combination of both traditional and social mediums allows companies to develop integrated communication strategies where all elements work together to achieve a common objective (Hanna et al., 2011). This interaction between traditional and new media, like mobile and social media, affects consumer-decision making (Batra and Keller, 2016).

Companies expect a number of benefits from their integration of social media in their marketing strategies. These can be summarized as follows:

- Reaching out to a large number of customers who could not be reached easily by distributing the content to those large numbers of consumers (Newman, 2003).
- Raising brand awareness by allowing the brand name to be present across all the consumers’ networks (Michaelidou et al., 2011; Evans and King, 2009; Fanion, 2011; O’Flynn, 2012).
- Identifying customer needs and gaining competitive intelligence (Jussila et al., 2014; Evans and King, 2009).
- Reducing the communication costs (Constantinide, 2010).

- Increasing customer engagement through the interactive aspects of social media which help to transform the relationship between the sellers and their customers (Sashi, 2012; Mitic and Kapoulas, 2012).
- Boosting sales by visiting the brands' pages; this is likely to increase the traffic to the website and increase sales (Jussila et al., 2014; New Media Age, 2010).

### **2.2.3 Exporting and the Use of Social Media**

According to Owusu and Habiyakare (2011), exporting is considered to be typically the initial launching pad to the international markets and forms the basis of subsequent international expansion. The growing liberalisation, integration and competition within the global economies are considered to be critical factors which result in firms' increasing export activities (Ural, 2009). The low level of business risk, low commitment to resources involved in exporting and the high flexibility of movement, mean that exports have developed into a key factor for SME survival, growth and the firms' future viability (Neupert et al., 2006). Furthermore, firms can benefit from exporting through exposure to growth opportunities; opportunities to increase profits; secure demand; enhanced productivity; developing superior management capabilities; and improving innovation in product and process (Lages and Montgomery, 2004).

However, despite SMEs' willingness and potential to export their goods and services, there are some drawbacks to doing so; these derive from distance, risks and other barriers (Tesfom et al., 2006). According to Suarez-Ortega (2003), these barriers are essentially elements which prevent or have a negative effect on exporting. Ultimately, these result in certain SMEs withdrawing from the process and, thus, placing themselves in an inferior position to their exporting competitors (Anderson, 2011; Leonidou, 2004).

As illustrated by proposed surveys and previous literature, firms, wishing to export, encountered a number of different types of barriers, both internal and external (Miesenbock, 1988). Those, derived from organisation resources and capabilities, are considered to be internal barriers, while others, which arise from the firm's domestic



and overseas environment, are thought of as external barriers (Leonidou, 2004). Existing research and surveys on exporting have identified several types of barrier faced by firms which seek to export. For example, Miesenbock (1988) summarized the reasons for non-exporting as both internal and external. These internal obstacles to exporting were expanded to include functional, informational and marketing factors and the external factors were extended to include procedural, governmental, task and environmental factors (Leonidou, 2004). However, as Leonidou (2004) stated, there was no consistency in the literature in addressing the topic of export barriers. Moreover, Arteaga-Ortiz and Fernandez-Ortiz (2010) concluded that there was a “lack of consensus of the number of underlying factors and the content of each factor”.

With respect to internal barriers, Vozikis and Mescon (1985) mentioned human resources, production and finance regarding the exporting as examples of functional deterrents linked to poor enterprise functionality. Other researchers (Katsikeas and Morgan, 1994; Morgan and Katsikeas, 1997) implied that information deficiencies in identifying, choosing and communicating with international markets could be considered to be informational barriers. Finally, Moini (1997) proposed that marketing barriers could be considered to be aspects of a company’s product, pricing, distribution and promotion abroad.

On the other hand, the external factors were considered to be the procedural barriers related to operating aspects of transactions with foreign markets such as: lack of knowledge with techniques/procedures; barriers to communication; and difficulties in collecting payments (Moini 1997). Albaum et al. (1998) and Terpstra and Sarathy (2000) referenced the home government’s actions and barriers in relation to its exporters such as: lack of government assistance; and unfavourable government rules and regulations. Problems caused by competitive pressures and customer peculiarities in overseas markets can be thought of as task barriers (Cateora and Graham, 2001; Doole and Lowe, 2001), while examples of environmental barriers are the foreign market’s economic, political–legal, and sociocultural environment within which the company operates or is planning to operate (Kedia and Chhokar, 1986; Moini, 1997).

Export barriers can be classified essentially as resourced-based, legislative, or procedural in nature. Of these, barriers linked to resources cover those related to finance, management time and other resources available to the firm. Typically, when surveyed about the barriers experienced when seeking to internationalise, firms highlighted finance elements (such as lack of working capital) as the most relevant of these (Fleiss, 2007). However, Greenaway et al. (2007) argued that the likelihood of a firm engaging in exports was not reliant on its financial status. This indicates that, despite being perceived as such, barriers may be unrelated to financial matters. In addition to financial constraints, firms reported issues including lack of management resources, exchange rates and foreign currency as resource-based barriers (Gallup, 2007; Kneller and Pisu, 2006). Transactions related to legal, financial and tax regulations and standards, are examples of procedural barriers experienced by exporters (Kneller and Pisu, 2006). These regulations incorporate, also, product quality, compliance with requirements, and patent and trademark considerations (Fleiss, 2007).

Insufficient information is usually a key consideration for firms looking to expand overseas; this is particularly so for initial exports and at the start of the exporting process. This lack of information can restrict the firm's ability either to attempt to export or to increase the level of perceived risk and can result in reduced willingness to commit (Seringhaus and Rosson, 1990; Benito et al., 1993). Cavusgil and Czinkota (1990) considered information barriers to be the second most important barrier to exporting. Others, including Johanson and Weidersheim-Paul (1975), Johanson and Vahlne (1990), Ernst and Young (2009) and Anderson (2011) found that a dearth of information on overseas markets was an inherent problem experienced by both small and medium sized exporters. Such information and network barriers can be classified into: limited knowledge of overseas markets (Gallup, 2007; Anderson, 2011); inaccessibility to new foreign customers and difficulties in recognising foreign business opportunities (Bakunda, 2003; Fleiss, 2007; Anderson, 2011); determining who must be targeted for preliminary contact; and building relationships with the key decision makers (Komulainen et al., 2004; Kneller and Pisu, 2006). Accordingly, less formal networks can be of value typically

when firms are seeking to obtain knowledge (Jones and Crick, 2004; Komulainen et al., 2004).

Some studies reported that a firm's overall development included the export development process of which information (both with respect to the knowledge base and information flows) was a key factor. Therefore, in a dynamic context, the relevance of this information factor is critical (Johanson and Vahlne, 1977; Johanson and Vahlne, 1990). Denis and Depelteau's (1985) study of Canadian export processes concluded that information behaviour was a persistent influence on the process of export expansion. Similarly, Yaprak (1985) indicated that the export behaviour of smaller companies followed a learning curve, as inferred by the outcomes of a study of US organisations, with competence, knowledge, and confidence; these were shown to accumulate incrementally in successive stages. Therefore, those previously mentioned barriers affect the export performance.

Export performance is regarded as one of the key indicators of the success of a firm's operations; this has received considerable attention in the literature over several decades (Wheeler et al., 2008; Sousa et al., 2008). While numerous studies have been conducted to explain export performance, there is no generally accepted conceptualization. Papadopoulos and Martín Martín (2010) stated that export performance was the outcome of a firm's activities in export markets. Diamantopoulos (1998) stated that export performance is the reflex of the results of export behaviour when exposed to different firm-specific and environment-specific circumstances. Cavusgil and Zou (1994, p.3) defined export performance "as a strategic response by management to the interplay of internal and external forces". For this study, the export performance can be defined as the outcomes from the firm's international activities.

According to Katsikeas et al. (2000) and Sousa (2004), export performance can be operationalized in two great types of measures: 1) objective (if its sources are official sources) vs. subjective (when it is based on personal experience, rather than based on facts); and 2) economic, non-economic, and generic. Objective data is usually extracted from official sources like financial statements and reports. Despite that objective assessment gives accurate information but, it is not easily available,

accessible and interpreted (Katsikeas et al., 2000; Lages and Lages, 2004). Also, it has been argued that managers are frequently unwilling or unable to respond effectively to questions regarding absolute performance ratings (Katsikeas et al., 2000). Subjective data is based on the respondent's personal experience and can be important when objective information is not accessible. However, the key informants do not always have the same reference point (Katsikeas et al., 2000; Lages and Lages, 2004, and Sousa, 2004); this may cause some bias of the results. On the other hand, economic measures include items such as export sales, profitability, and market share. However, non-economic measures include product gauges (development of new product for export), market consideration (nature of markets exported to), years of exporting, perceived success, and achievement of objectives (Katsikeas et al., 2000). Profits from export sales are probably the most frequently used measures of export performance (Zou and Stan, 1998; Ahamed and Skallerud, 2013). For the current study and for the previously discussed reasons, the researcher used economic measures but from a subjective perspective.

Several authors commented on the role of technology with regard to exporting. Existing literature indicates that firms, using an internet strategy to export, gain a significant technological advantage. A study of the UK's exporting firms suggested that those, implementing the internet for export purposes, tended to require fewer overseas agents or other representatives (Bennett, 1997), while other indicated that manufacturing exports increased in line with internet usage (Bojnec and Ferto, 2009). Furthermore, the optional route, which the internet provides, enables exporters to trade with overseas markets via virtual export channels (Morgan-Thomas and Bridgewater, 2004). Ultimately, as suggested by Leonidou (2000), one of the most significant limitations to overseas expansion by means of direct foreign investment is lack of investment capital. This is particularly relevant to small firms which can overcome physical and psychological barriers by using the Internet to serve distant markets and by positioning themselves in closer proximity to these consumers.

Bell and Loane (2010) argued that recent IT-based developments had paved the way for increased internationalisation, especially for SMEs, and that web-based applications limited the barriers to exporting. In a study of UK and German SME exporters, certain limiting factors to exports were defined as physical distance,

practical export problems, resource constraints, trade restrictions and market risk. Surprisingly, these factors were deemed to be less problematic for firms using World Wide Web sites for overseas marketing (Bennett, 1998). Perceptions towards export barriers, particularly psychological barriers, differed between firms using web-based approaches and those without web sites (Vivekanandan and Rajendran, 2006). Given that companies with an online presence can communicate with the entire world without economic, cultural or commercial restrictions, specific pre-market entry concepts (like physical distance) become less important (Mathews et al., 2012).

As mentioned by Osarenkhoe (2008), in terms of transactional costs, internationalisation infers that a market or mode of internationalisation will be selected that minimises transaction costs; such costs will include searching for information and contacts in possible markets. Given that, in addition to information-gathering on overseas markets, regulations, and competitors, communication and foreign representation seem to be facilitated by the use of social media platforms. Hence, specific export barriers might be reduced through the application of social media (Maltby, 2011). Additionally, Hamill et al. (2011) and Soar (2012) found that the unrivalled new ability afforded to firms to obtain knowledge of various markets by access to unfiltered, unprompted information, thereby mitigated resource, legal and procedural barriers. This opportunity is facilitated by the novel use of social media to extract crowd-sourced information and experience and to form an online virtual community for exporters.

Cross-cultural research on the interaction between culturally-distinct individuals is required in order to optimise the use of social media for internationalisation. As described by Lynch and Beck (2001), global customers require a cultural engagement with firms since culture affects essentially how users behave and perceive an event on technology based applications like social media (Pookulangara and Koesler, 2011). Given that cultural characteristics and tradition can influence the interpretation of user opinion and attitudes towards a firm or its products, a cultural or ethnic background can affect, therefore, how social media and its content are considered (Pookulangara and Koesler, 2011). Consequently, global communication competency is an important ability which we need to develop in order to help us to understand other cultures and to communicate successfully in today's society

(Sawyer, 2011). Its importance is encompassed by adaptation which is defined as a “dynamic process by which individuals, upon relocating to an unfamiliar cultural environment, establish (or re-establish) and maintain a relatively stable, reciprocal, and functional relationship with the environment” (Gudykunst, 2003).

#### **2.2.4 Theories of Adoption/Use of Technology**

Adoption of innovation is related to the decision to accept and use that innovation (Rogers, 1995; Bøving and Bøker, 2003). This innovation is associated with something new such as: ideas, artefacts or products (Rogers, 1995). Social media provides quite novel and useful ways of interacting and collaborating as well as creating new information and knowledge (Barker, 2008; Bernoff and Li, 2008). Accordingly, the use of social media networks to support B2B organisation is considered to be an innovation which can be explained by theories of adoption of innovation (Sarosa, 2012).

Several theoretical frameworks concerning the reasons for the adoption/use of IT have been developed in recent years. These frameworks offer managers a rationale to enable them to make better decisions regarding the evaluation, adoption and use of the Internet (Karahanna and Straub, 1999). Furthermore, other researchers (Rose and Straub, 1998; Lynn et al., 2002) have investigated the determining factors which result in profitable implementation of IT in a marketing context. Therefore, after having been popularised in the 1980s, there has been renewed interest recently in the study of the spread and adoption of new technologies.

This renewed interest is due, at least in part, to the increasing spread of networking technologies, such as the Internet, and the diminishing significance of geographical distances (Rose and Straub, 1998). Within this research, the researcher studies the company viewpoint of factors affecting the use of social media platforms given that their focus on collective behaviours and interdependence between users make them distinct from other traditional technologies. This viewpoint is built on social media platforms being derived from an information technology innovation

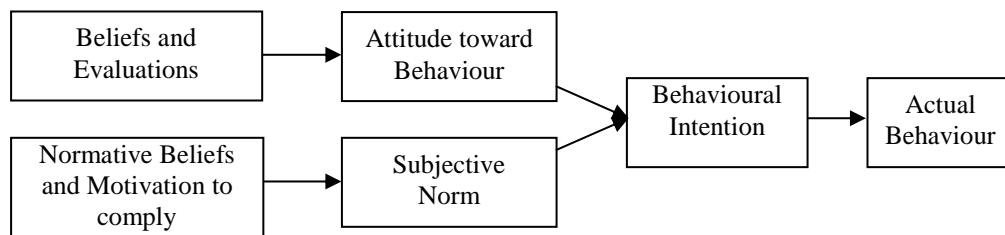
and, thus, the investigation of the determinants of usage behaviour of such platforms, from an innovations point of view, is of interest to the researcher.

In the following sections, there is an examination of some of the main theories that have been used over the past fifteen years to assist in comprehending processes of IS/IT adoption and implementation and connecting them to the international environment. Among these theoretical models are the following: the Theory of Reasoned Action (Fishbein and Ajzen, 1975); the Technology Acceptance Model (Davis, 1985); the Theory of Planned Behaviour (Ajzen, 1991), the Decomposed Theory of Planned Behaviour (Taylor and Todd, 1995), the Innovation Diffusion Theory (Rogers, 1995), and; the Unified Theory of Acceptance and Use of Technology (Venkatesh et al., 2003). This study uses them to examine the SMEs' use of social media as an innovative area. These theories are presented chronologically as follows.

#### 2.2.4.1 Theory of Reasoned Action (TRA)

Figure 2.1 illustrates a model of Fishbein and Ajzen's (1975) theory of reasoned action.

**Figure 2.1: The Theory of Reasoned Action Model**



**Source: Davis, Bagozzi and Warshaw (1989)**

This theoretical model suggests that an individual's actual behaviour can be established by consideration of his/her prior intentions and that the behaviour intention can be established by consideration of both the attitude which an individual has towards the actual behaviour and the subjective norm related to this behaviour. Fishbein and Ajzen (1975) defined the attitude toward a specific behaviour as an

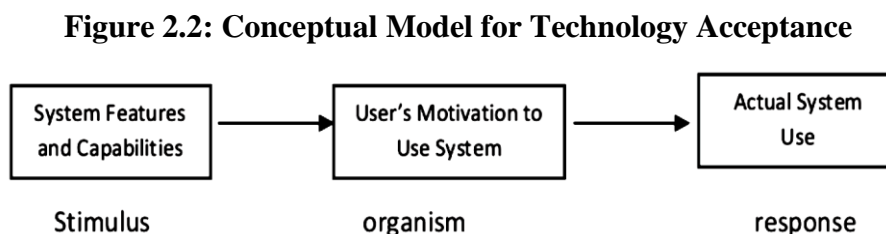
individual's positive or negative emotions about carrying out the actual behaviour. They suggested that an individual's attitude towards behaviour was dependent on his/her beliefs about the results of carrying out that behaviour and an assessment of those results.

Fishbein and Ajzen (1975) defined the subjective norm connected to behaviour as being the individual's view as to whether most of those, who are important to him or her, think he or she should or should not carry out the behaviour. This depends on the perception of other individuals' or groups' beliefs and his or her impetus to act in accordance with these.

The TRA theory was applied broadly in various studies to explain both the intended and the actual behaviour (Davis et al., 1989). According to Davis et al. (1989) and Ajzen (1991), a failure to define the beliefs, relevant to a given behaviour as a result of its broad applicability, is one of the several drawbacks in applying TRA. Therefore, those, who are studying its use, are required, with respect to a given behaviour, to identify upfront the beliefs which are salient to the subjects. Since TRA is not well-placed to predict situations in which individuals have low levels of volitional control (Ajzen, 1991), it is applicable, therefore, only in scenarios where such volitional control is in place.

#### 2.2.4.2 Technology Acceptance Model (TAM)

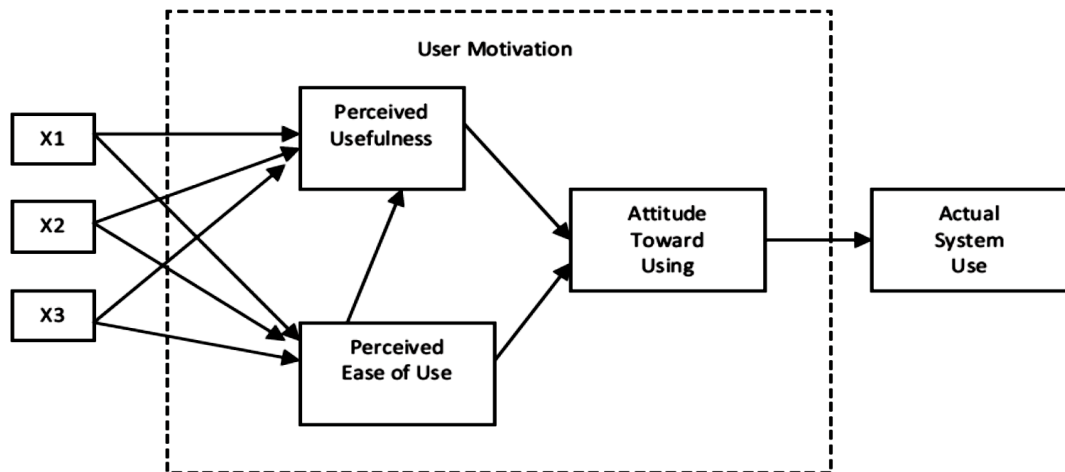
Davis (1985) proposed the Technology Acceptance Model (TAM) shown in Figure 2.2. In this model, user motivation can explain or predict system use and an external stimulus consisting of the system's features and capabilities has a direct influence on this motivation.



**Source: Davis, (1985, p.10)**



**Figure 2.3: Original TAM**



**Source: Davis (1986, p.24)**

Davis developed his conceptual model further to present the TAM, as shown in Figure 2.3, by following Fishbein and Ajzen's (1975) Theory of Reasoned Action and other related research studies.

In this model, Davis (1985) proposed that the following three factors could explain users' motivation:

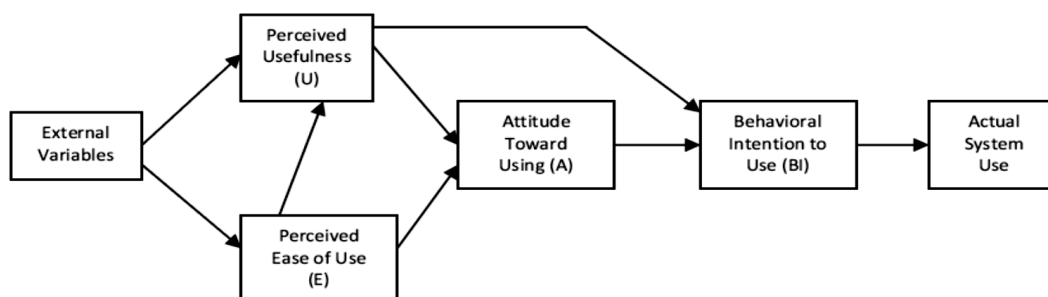
- **Perceived usefulness:** perceived usefulness is defined as the extent to which the individual perceives that a particular technology system would enhance his/her work performance (Davis, 1985).
- **Perceived ease of use:** perceived ease of use is defined as the extent to which the individual believes that using a particular system would be easy. This is an important factor, given that likely users can deem a system to be of benefit but may consider it unwieldy to operate, and that the difficulties, which they would face in using it, would not outweigh the benefits.
- **Attitude toward using the system:** Davis (1985) suggested that a user's attitude towards a system was the primary determinant of whether the user would use or reject the system. He considered, also, that the user's attitude was affected by two main beliefs, namely, perceived usefulness and perceived ease of use, and that the perception of ease of use had a direct effect on the

perception of usefulness. In turn, Davis (1985) proposed that the system design characteristics had a direct influence on both these beliefs.

The theory of reasoned action, which was presented ten years after its introduction, is considered to be the basis of the TAM. Although holding the view that the actual use of a system constituted behaviour and, therefore, the TRA was an appropriate model to explain and predict that behaviour, nevertheless Davis (1985) altered it in two ways. Firstly, in order to predict an individual's actual behaviour, he did not consider the subjective norm since he stated that Fishbein and Ajzen (1975) recognised that subjective norm was the least understood element of TRA. Therefore, in the TAM model, Davis took into account only an individual's attitude towards a particular behaviour. Secondly, rather than considering a number of an individual's principal beliefs to establish attitude towards a particular behaviour, Davis considered that perceived usefulness and perceived ease of use were sufficient to predict a user's attitude toward the use of a system.

As shown in Figure 2.4, Davis et al. (1989) expanded TAM from the original model by including behavioural intention as a variable on which perceived usefulness would have a direct impact.

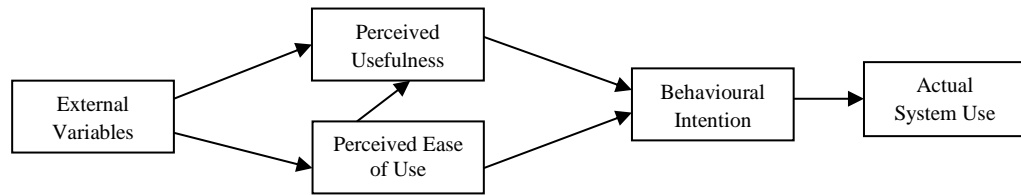
**Figure 2.4: First Modified Version of TAM**



**Source: Davis, Bagozzi and Warshaw (1989, p.985)**

Furthermore, it was found that, after using this model to carry out a longitudinal study, behavioural intention was affected directly by both perceived usefulness and perceived ease of use. It was found, also, that perceived usefulness mediated the effect of perceived ease of use on usage and, hence, the requirement for the attitude construct was removed from the models shown in Figures 2.3 and 2.4. This resulted in the model illustrated in Figure 2.5 below.

**Figure 2.5: Final Version of TAM**



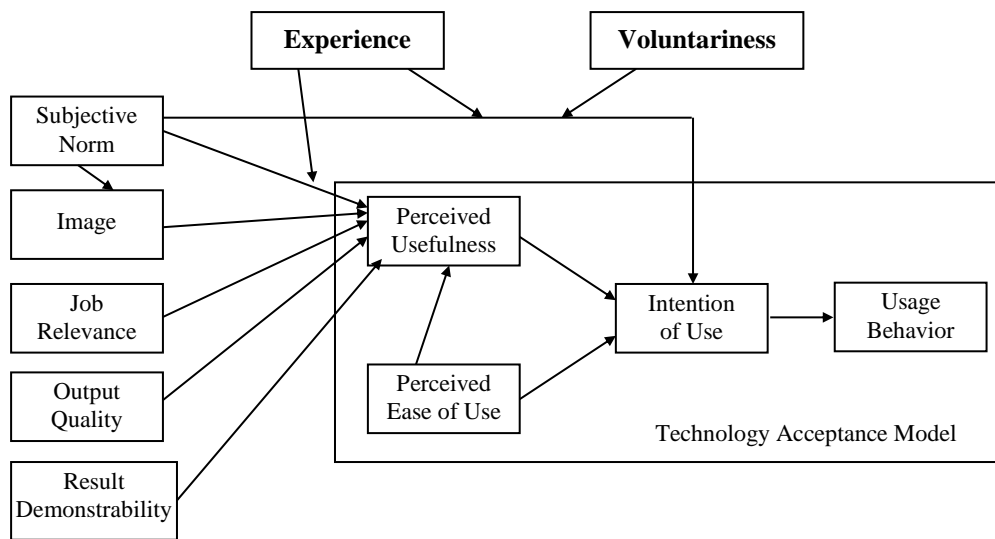
**Source: Venkatesh and Davis (1996, p.453)**

In order to validate the TAM model, Davis (1989) conducted many experiments by using perceived ease of use and perceived usefulness to understand the information system usage. He found out about the constructs which correlated significantly with the intended and actual use. Many studies replicated this validated TAM measure in order to prove its reliability and validity in explaining the user acceptance in different IT/IS contexts (e.g. Segars and Grover 1993; Adams et al. 1992; Mathieson 1991; Hendrickson et al. 1993, 1996)

Since TAM explained very well the user's acceptance of different IT/IS applications, other researchers developed a number of extensions to the TAM by using other constructs with the aim of enhancing its ability to predict use. For instance, Chau (1996) modified TAM to include both long-term and short-term perceived usefulness and found that perceived short-term usefulness had the strongest effect on the behavioural intention to use the technology. Igarria et al. (1995) extended TAM to include individual, organisational and system features (e.g.: training, computing support and managerial support); their results confirmed that these features had a significant effect on perceived ease of use and perceived usefulness. However, other studies showed that training had no significant effect on both perceived ease of use and perceived usefulness (Karahana and Straub, 1999). Gefen and Straub (1997) extended this to include gender; they concluded that researchers ought to include gender together with other cultural influences in IT diffusion models.

Also, Venkatesh and Davis' (2000) most cited research extended the TAM model by including certain antecedents to perceived usefulness and perceived ease of use in order to explain the reasons why a person would perceive a given system to be useful. As shown in Figure 2.6 below, they called this new model TAM 2.

**Figure 2.6: TAM2 Model**



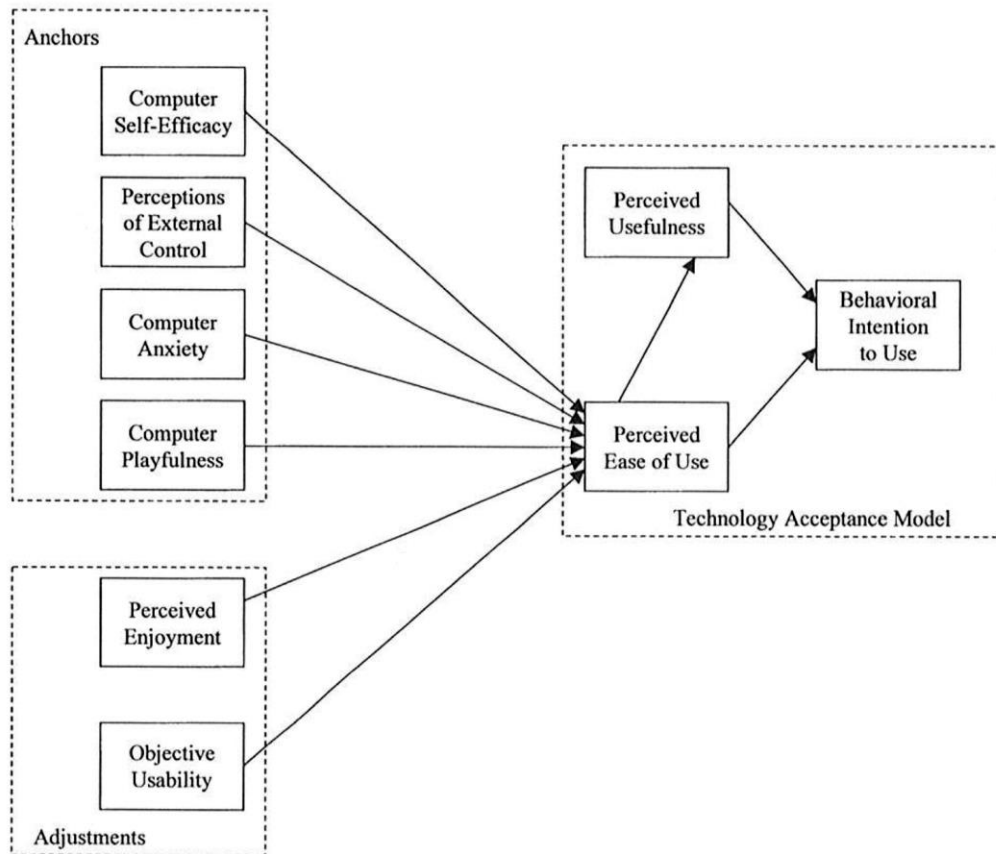
**Source: Venkatesh and Davis (2000, p.188)**

As they were crucial to the study of user acceptance, the TAM2 model was designed to accommodate two factors of importance: namely, the social influence processes (subjective norms, voluntariness, and image); and the cognitive instrumental processes (job relevance, output quality, result demonstrability, and perceived usefulness). In TAM2, a subjective norm is defined as “a person's perception that most people who are important to him think he should or should not perform the behaviour in question”; voluntariness is set as a moderating variable and defined as “the extent to which potential adopters perceive the adoption decision to be non-mandatory”; image refers to “the belief of a group important to an individual that a certain behaviour should be implemented and implementation of this behaviour by the individual can persistently enhance the quality of internal works of the organisation”. However, job relevance is defined as “an individual’s perception regarding the degree to which the target system is applicable to his/her job”; output quality refers to “the degree to which an individual judges the effect of a new system”; and, finally, result demonstrability refers to “tangibility of the results of using the innovation”. In studying the subjective norms, Venkatesh and Davis (2000) found that the usage of innovation system ought to be differentiated into mandatory and voluntary. Additionally, experience was incorporated as a moderator variable since users’ acceptance of an innovation system could vary with increase in their

experiences. As demonstrated by their research, notable indicators of the usefulness construct included results demonstrability, image, subjective norms, job relevance and output quality.

A second important extension to the TAM model was made by Venkatesh (2000), who was interested in identifying the antecedents of the perceived ease of use variable in the TAM model. Anchors, one of the two primary groups of antecedents proposed by Venkatesh, can be thought of as general beliefs about computers and computer usage, while the other group, adjustments, consists of shaped beliefs based on direct experience with the direct system. Anchors constructs consists of: Computer self-efficacy (the degree to which an individual believes that he or she has the ability to perform specific task/job using computer); perceptions of external control (the degree to which an individual believes that an organisational and technical infrastructure exists to support use of the system); computer anxiety (the degree of an individual's apprehension, or even fear, when she/he is faced with the possibility of using computers); and computer playfulness (the degree of cognitive spontaneity in microcomputer interactions). However, the adjustment constructs consists of: Perceived enjoyment (the extent to which the activity of using a specific system is perceived to be enjoyable in its own right, aside from any performance consequences resulting from system use); and objective usability (a comparison of systems based on the actual level (rather than perceptions) of effort required to complete specific tasks). This is the TAM 3 model shown in Figure 2.7 below.

**Figure 2.7: TAM3 Model**



**Source: Venkatesh (2000, p.346)**

With regard to a comparison of TAM with the other models, Davis et al. (1989) compared TAM with TRA. He concluded that TAM offered a better explanation of the users' acceptance intention than TRA. The implementation of TAM is considerably simpler and less costly since the belief variables are independent of context while, in the case of the TRA, it is a series of context-specific principal beliefs developed prior to formulating the scales for measuring these beliefs.

Mathieson (1991) compared TAM with Theory of Planned Behaviour (TPB), which will be explained later. This showed that both models made good predictions of intention to use but that TAM was marginally better from an empirical perspective because it was less complex and could be applied generally to any system. In the same vein, Taylor and Todd (1995) tested the decomposed version of the above mentioned TPB and found that TAM was a (slightly) better predictor of usage. Because it is simple and easy to implement, TAM appears more appealing than other theories.

The TAM has, also, a strong theoretical base and has been supported by many empirical studies (Lucas and Spittler, 1999). Sharp (2007) and King and He (2006) conducted met-analyses which showed that TAM could be applied to a wide range of functions, e.g. e-mail, voicemail, fax, and so forth and, with a broad range of participants, was widely used in many countries, such as the USA, UK, Taiwan, Japan, and Canada. A statistical meta-analysis of TAM, which used 88 published studies in various fields, found that the TAM was a strong and reliable predictive model which could be used appropriately in various contexts (King and He, 2006). Wang et al. (2003) found the TAM was very reliable and they concluded that, due to the considerable empirical support for the model compared to other models, it would probably be the most widely used by information system researchers. The TAM was designed solely for computer usage behaviour and, therefore, it was likely to be particularly suitable for modelling computer application acceptance. For this reason, the researcher chose it for use in this study.

However, several authors (Straub and Brenner, 1997; Straub et al., 1995) pointed out the TAM's limitations. For instance, the TAM was developed based on a self-reported system and, therefore, the model did not conceptualise the difference between self-reported use and actual use. TAM has developed from the researcher's perspective but not from the user's perspective (Venkatesh et al., 2003). In addition, since users' perceptions and intentions may alter over time, it is important that these quantities are measured at a number of points of time. Additionally, Bagozzi (2007) argued that the TAM model had two limitations: namely, 1) it suffered from the same problems as the TRA and TPB; and 2) it was too simple because it neglected important variables such as culture and social variables. Simply adding too many external variables weakness TAM's theoretical foundations (Bagozzi, 2007).

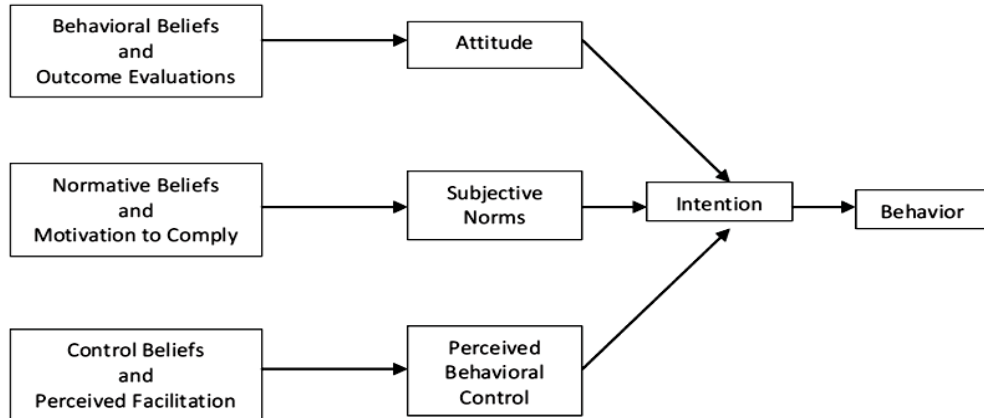
#### **2.2.4.3 Theory of Planned Behaviour (TPB)**

As proposed by Ajzen (1991) and illustrated in Figure 2.8, the TPB model has many similarities with the TRA model. However, it contains the additional construct of Perceived Behavioural Control (PBC). PBC refers to the perception of control

over performance of certain behaviour; in other words, the extent to which an individual feels that engaging successfully in behaviour is entirely up to them. PBC is influenced, also, by the effects of two beliefs: control beliefs; and perceived facilitation. Among control beliefs are the perception of the availability of skills, resources and opportunities, while the perception of facilitation belief is the individual's evaluation of resources available for the accomplishment of a specific set of results. Hence, the TPB views an individual's behavioural intention as a function of the three factors of attitude towards the behaviour, subjective norms, and perception of behavioural control.

Nonetheless, the precise nature of the relationships between attitudes, subjective norms, and perception of behavioural control remained undecided. In addition, the conceptualisation of PBC has been a matter of debate (Kraft et al., 2005) and the measurement of beliefs underlying the model has remained a problem. These make the operationalization of the TPB difficult. Moreover, Taylor and Todd (1995) argued that PBC was insufficient to illustrate the non-controlled aspects of behaviour.

**Figure 2.8: Theory of Planned Behaviour (TPB)**



**Source: Mathieson (1991, p.175)**

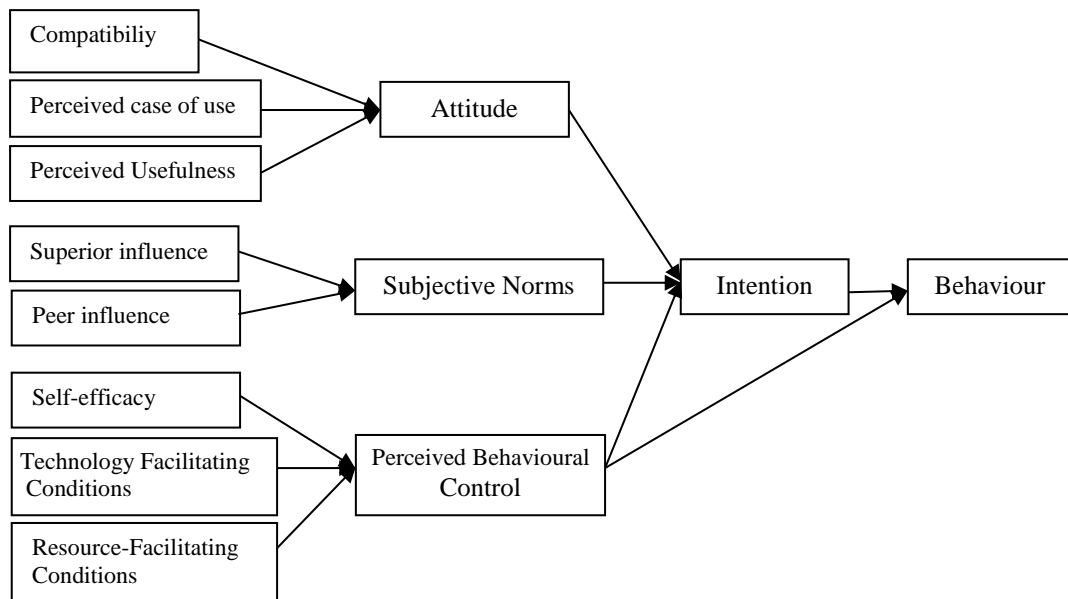
#### **2.2.4.4 Decomposed Theory of Planned Behaviour (DTPB)**

The TBP was extended into the Decomposed Theory of Planned Behaviour (DTPB) (Ajzen, 1991). Both theories hold that behaviour is a direct function of behavioural intention and both see behavioural intention as a function of attitude, subjective norms, and perception of behavioural control. However, as shown in



Figure 2.9, in DTPB, subjective norms, and perceptions of behavioural controls are all decomposed into multi-dimensional constructs of belief (Taylor and Todd, 1995).

**Figure 2.9: DTPB Model**



**Source: Taylor and Todd (1995, p.146)**

The use of the DTPB model permits a greater understanding of the relationship of the antecedents and allows, also, the discovery of specific factors which impact on the adoption or use of new technology (Taylor and Todd, 1995). According to Taylor and Todd (1995), the DTPB model possesses greater explanatory power than the TPB. It is more complex since it comprises a large number of factors which can have an influence on usage (Hsu and Chiu, 2004). This theory has gained support from several researchers (Jaruwachirathanakul and Fink, 2005).

The DTPB model defines the first factor, attitude, as the extent to which the individuals favours the behaviour under examination (Ajzen, 1991). The three constituents of attitude, considered by this model, are perceived usefulness, perceived ease of use and compatibility. The first of these, perceived usefulness, can be thought of as the user's perception towards the potential value of a given technology to enhance his/her work performance (Davis, 1989). Rogers (2003) argued that novel technologies were more likely to be adopted when measures of perceived usefulness were high. Ease of use refers to the extent to which either an innovation may be easily understood and operated (Rogers, 2003) or the degree of effort a particular technology requires (Davis, 1989). Potential users are less likely to

accept and use technologies which they see as being more complex. Ease of use has been reported as being a significant determinant in the decision to adopt technology (Davis, 1989). Furthermore, Rogers (2003) described how the degree to which the likely user's inherent values and experiences were reflected in a given technology could be thought of as compatibility. Essentially, users, who find an innovation to be in harmony with their work responsibility and value system, are more likely to implement it (Tornatzky and Klein, 1982). It is probable that the attitude towards using the technology becomes more positive as ease of use, usefulness, and compatibility increase.

Subjective norms, the second factor, refer to the social demands that make an individual carry out a particular behaviour (Ajzen, 1991). The views of different social groups may vary in terms of the adoption of a particular technology (Taylor and Todd, 1995).

The third factor, perception of behavioural control, refers to the circumstances in which individuals are unable to exercise complete control of their behaviours (Ajzen, 1991). This factor contains two components, the first of which is self-efficacy; this refers to the individual's ease with the use of technology (Bandura, 1982). Higher level of behavioural intentions and actual use are exhibited under conditions of increased self-efficacy in using technological applications (Taylor and Todd, 1995; Compeau and Higgins, 1995). The other component, facilitating conditions, refers to the availability of resources, such as time, money and so forth, which are required to use the technology (Triandis, 1979). Conversely, Taylor and Todd (1995) asserted that the absence of facilitating conditions could have a negative effect on the intention and use of technology.

#### **2.2.4.5 Innovation Diffusion Theory (IDT)**

Rogers (1995) defined diffusion as "the process by which an innovation is communicated through certain channels over time among the members of a social system" and innovation as "an idea, practice, or object that is perceived as a new by individual or another unit of adoption". Drury and Farhoomand's (1996) definition of innovation was an idea, practice, or material artefact considered to be new by the

relevant unit of adoption. The Innovation Diffusion Theory (IDT) attempts to explain, *inter alia*, the innovation decision process, the determining factors of rate of adoption and the various classifications of adopters (Rogers, 1995).

Rogers (1995) identified the four main components that comprise the innovation diffusion theory. These are, namely: innovation; communication; time; and social system.

- **Innovation**

According to Rogers (1995), an innovation is a concept, thing, process, or system which the individual or group adopting it perceives as new. The rate of adoption is provided by a set of innovation characteristics which influence the rate of adoption. These characteristics include: relative advantage; compatibility; complexity; trialability; visibility; and observability (Rogers, 1983). The five attributes are reported to explain 49% to 87% of the variance rate of adoption (Rogers, 1995) and can be described briefly as follows:

- **Relative Advantage:** the extent to which an innovation is seen to be superior to its antecedents;
- **Compatibility:** the extent to which an innovation is perceived to be consistent with the current values and requirements, and the previous experiences of potential adopters;
- **Complexity:** the extent to which an innovation is believed to be difficult to use;
- **Observability:** the extent to which the results of an innovation may be observed;
- **Trialability:** the extent to which an innovation may be tried out prior to its adoption.

All these characteristics were found to have a positive relationship to rate of adoption while the perceived complexity of an innovation had a negative relationship to the rate of adoption (Rogers, 1995). Possibly the most widespread use of these components of IDT is with regard to the features of the innovation *per se*.

In the field of information systems, Moore and Benbasat (1991) extended Rogers' work. Three of the seven innovation characteristics, namely, relative advantage, compatibility, and trialability, are taken directly from Rogers. In addition, the fourth characteristic, ease of use, relates closely to Rogers' complexity. While

Image is included as an internal component of perceived relative advantage (Rogers, 1983), Moore and Benbasat (1991) considered it to be an independent predictor of adoption. Agarwal and Prasad (1998) defined ‘Image’ as a self-perception that adoption of an innovation could lead to an individual achieving greater social status with his/her peers. Other characteristics, results demonstrability and visibility, are adaptations of Rogers’ characteristic observability. The demonstrability of the results can be considered to be the visible results of the adoption of an innovation while visibility is the extent to which potential users consider an innovation to be visible in the context of adoption (Moore and Benbasat, 1991; Agarwal and Prasad, 1998).

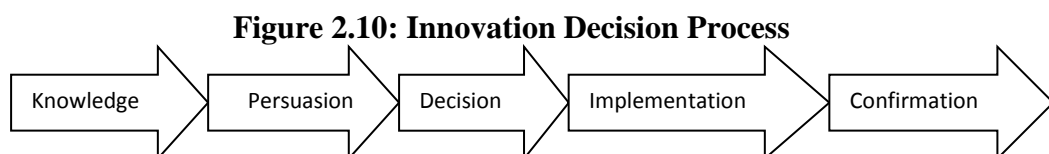
- **Communication**

Communication is the process through which individuals develop and share information with each other in order to reach a common understanding. The relationship between the source of communication about the innovation and the rate of adoption is an important one. For example, the more similar the source of the information in terms of values, status and education is to the potential adopter, the more rapid will be the adoption of the innovation (Rogers, 1995).

- **Time**

The time element has three components:

- **Innovation-decision process:** The innovation decision process begins with knowledge of the innovation’s existence and ends with the confirmation of the decision to adopt or reject it. Figure 2.10 below illustrates the five stages of the innovation decision process according to Rogers (1995). At the knowledge stage, users encounter the innovation for the first time and gain a basic comprehension of it. In the second and third stages, managers shift from persuasion to making the decision to adopt or reject the innovation. The fourth stage is implementation and use, and the final one is the decision to confirm either acceptance of the system from a usefulness or fitness perspective, or to reject it.



Source: Sahin (2006, p.15)

- **Categories of adopter:** These classify individuals according to their tendencies to adopt new ideas in comparison to other members of the social system. These classifications are: innovators; early adopters; the early majority; the late majority; and laggards. Innovators are those who look for and embrace innovations. Early adopters are open to change but are not inclined to take risks to the same extent as innovators. The early majority tend to adopt innovations a short time before the average member of a social system. The late majority are not so fast to adopt and are usually wary of innovation. Finally, the laggards are traditionalists who are suspicious of innovation and are the last group in a social system to adopt an innovation.
- **Rate of adoption:** Innovation adoption follows generally an S-shaped curve; this means that only a few individuals adopt the innovation initially but, with the passing of time and more and more individuals adopting it, the rate increases.
- **Social system:** Leaders of opinion, agents of change, and champions are the individuals within a social system who are able to influence the diffusion of innovation within a social system (Rogers, 1995).

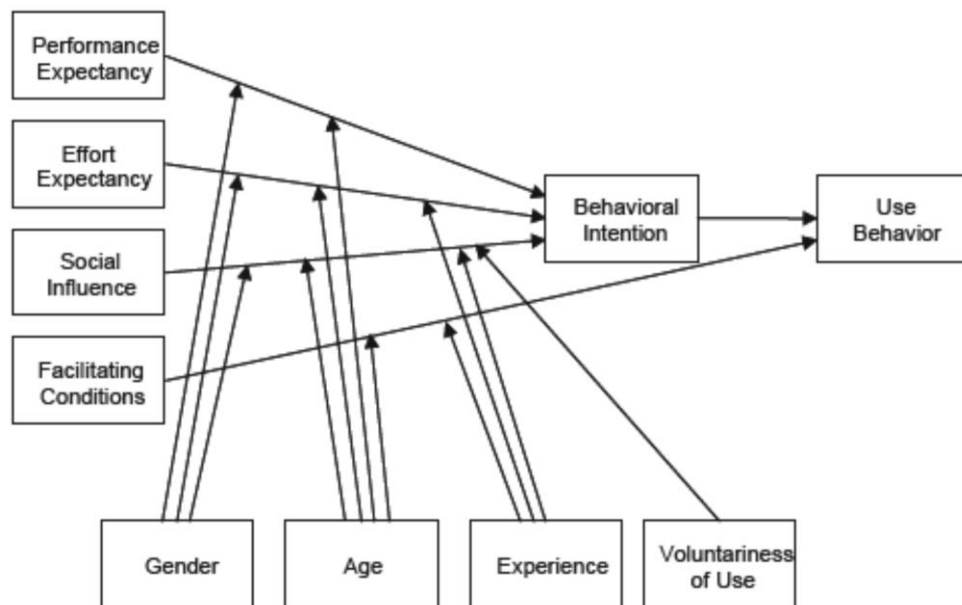
However, IDT, is, also, not without its limitations and criticism. For example, Damanpour (1996) argued that it was extremely difficult to measure what exactly caused an innovation to be adopted. Moreover, Plsek and Greenhalgh (2001) claimed that diffusion theories could never account for all variables and, consequently, they might miss critical predictors of adoption.

#### **2.2.4.6 Unified Theory of Acceptance and Use of Technology (UTAUT)**

The Unified Theory of Acceptance and Use of Technology (UTAUT) model was implemented with the purpose of providing a central theoretical foundation to enable research on the adoption and use of Information Systems (IS) and Information Technologies (IT). As proposed by Venkatesh et al. (2003), the UTAUT's central tenet was that four main factors, performance expectancy, effort expectancy, social influence, and facilitating conditions, influenced essentially behavioural intention with respect to SI/IT as shown in Figure 2.11 below.

UTAUT assumes essentially that the outcome of the core constructs is moderated by gender, age, experience, and voluntariness of use. The review, mapping and integration of several other theories were used to formulate this theory. The homogeneity observed amongst constructs of theories already in place led to the definition and validation of the theory. Therefore, the authors argued that the mapping and inclusion of these constructs to form a unified theoretical base was the appropriate approach to take. Given that there was no evaluation of the plausible direct effects and no less than eight independent variables to predict behaviour were used in addition to 41 independent variables to predict intention, the complexity of the UTAUT model is, therefore, apparent.

**Figure 2.11: Unified Theory of Acceptance and Use of Technology (UTAUT)**



**Source: Venkatesh, Morris, Davis and Davis (2003, p.447)**

Based on the previous discussion, Table 2.1 provides a brief overview of each model's contribution together with the criticism/limitations. These can be summarized as follows:

**Table 2.1: Innovation Adoption Theories: Contributions and Limitations**

|                     | TRA   | TAM  | TPB & DTPB   | IDT   | UTAUT   |
|---------------------|---|--|--|---|---|
| <b>Contribution</b> | <ul style="list-style-type: none"> <li>- TRA considered being a first attempt to understand the relationship between the attitude and behaviour (Ajzen and Fishbein, 1980).</li> <li>- TRA is used to predict a wide range of behaviours (Davis et al., 1989).</li> </ul>   | <ul style="list-style-type: none"> <li>- TAM is designed to predict information technology mainly for IS technology after the failure of a large number of studies to produce a reliable measure that could explain either system acceptance or rejection (Davis, 1989).</li> <li>- TAM2 extended TAM by including subjective norms; these are considered to be an additional predictor for intention of adoption (Venkatesh and Davis, 2000).</li> <li>- TAM3 extended TAM by adding two antecedents for the perceived ease of use: Anchors and adjustments (Venkatesh, 2000).</li> </ul> | <ul style="list-style-type: none"> <li>- TPB seeks to comprehend behaviour when a user is incapable of exercising full control over both internal and external factors which make it possible to engage in a given behaviour; thus, it is an extension of TRA.</li> <li>- TPB extended TRA through the addition of perceived behaviour control as a further predictor for intention of adoption (Ajzen, 1991).</li> <li>- Decomposed Theory of Planned Behaviour (DTPB) deconstructs: attitude, subjective norms, and perceived behavioural control into its underlying belief structure (Ajzen, 1991).</li> </ul> | <ul style="list-style-type: none"> <li>- IDT contributes as a theory which seeks to explain how, why, and at what rate new ideas and technology spread through cultures (Rogers, 1995).</li> </ul>  | <ul style="list-style-type: none"> <li>- Given the homogeneity that exists among constructs from various theories, the reviewing, mapping and integration of these theories were used to produce UTAUT (Venkatesh et al., 2003).</li> </ul> |
| <b>Limitations</b>  | <ul style="list-style-type: none"> <li>- Predicting specific behaviour requires that attitude and intentions must match each other on action, time, target, and specificity (Ajzen, 1985).</li> <li>- The theory predicts only behaviours and actions that are volitional, therefore, its scope excludes such behaviours that are habitual or unconscious (Bandura, 2002).</li> </ul> | <ul style="list-style-type: none"> <li>- TAM was criticized for its assumption that perceived ease of use and perceived usefulness were always the primary determinants of users' acceptance of technology systems (Park et al., 2007).</li> <li>- TAM based on self-reported system (Straub and Brenner, 1997)</li> <li>- TAM is not measuring users' perceptions and intention over time (Straub et al., 1995).</li> <li>- It neglects important variables such as culture and social variables (Bagozzi (2007).</li> </ul>  | <ul style="list-style-type: none"> <li>- Requires an individual to be motivated to perform a specific behaviour.</li> <li>- Perceived behaviour control is insufficient to answer all non-controllable aspects of behaviour (Taylor and Todd, 1995).</li> </ul>  | <ul style="list-style-type: none"> <li>- The difficulty of measuring what exactly causes adoption of an innovation (Damanpour (1996).</li> <li>- The IDT does not present any evidence of how attitude evolves into an adoption or rejection decision (Karahanna et al., 1999).</li> <li>- The insufficiency of the attributes of the IDT theory in illuminating the adoption behaviour of complex organisational technologies (Chau and Hu, 2002).</li> <li>- IDT can never account for all variables and, therefore, they might miss critical predictors of adoption (Plsek and Greenhalgh, 2001).</li> </ul> | <ul style="list-style-type: none"> <li>- UTAUT model contains a large number of independent variables for predicting intentions. In addition, there are plausible direct effects which are untested (Venkatesh et al., 2003).</li> </ul>    |

Rogers (2003) described the multiple definitions of innovation which were formulated in the past one hundred years. The majority of these definitions regarded newness, value creation, and process as the central characteristics of innovation. Govindarajan and Trimble (2010) argued that a successful model for innovation within an organisation comprised idea, leader, team, and plan. In the same vein, Scotchmen (2004, p.39) stated that “an innovation requires both an idea and an investment in it”. This line of reasoning was supported by Greenhalgh and Rogers (2010, p.4) who mentioned that innovation was “the application of new ideas to the products, processes, or other aspects of the activities of a firm that lead to increased value”. Hence, it is apparent that three elements can be combined usefully to generate a working definition of innovation; this includes a novel idea, which is diffused or adopted by users or customers, and results in creating value which could be applied to the social media context. However, social media is different from other technologies; whose adoption by B2B organisations has already been examined by innovation adoption theories like TAM and IDT, in that it does not require a large investment such as other technologies, more interactive, less complex when compared with other web-based applications, and it is not owned by companies (Siamagka et al., 2015; Christodoulides, 2009), hence, different findings in relation to those theories might be expected.

As we mentioned previously, a number of theoretical frameworks were widely used over the past decade to assist in understanding the IS/IT adoption and implementation process. TAM is accurate in providing an adequate acceptance prediction power with different information systems since it has a strong validated theoretical base when compared to other relevant well known theories (Davis, 1989, Davis et al., 1989, Mathieson, 1991, Gefen et al., 2003). However, there is a need to combine both TAM and IDT. These theories have sound theoretical foundations and numerous studies have demonstrated their success. Hence, this research focuses on the possibility of their use to predict the use of social media in the efforts to export. Social media is different from other technologies, whose adoption by B2B organisations has already been examined by TAM and IDT, in that it does not require a large investment, such as other technologies, and it is not owned by companies (Christodoulides, 2009).



Through the combination of TAM and IDT, the implementation's factors and processes are interrelated in the real situation. Consequently, there is a need to combine both theories in order to gain a better understanding of the diffusion on social media since each theory explores the process either from a factors perspective or from a process perspective. However, researchers, working with TAM and IDT, have revealed a similar relationship between Davis' (1985) constructs of "relative advantage" and "complexity" and Rogers' (1995) constructs of "perceived usefulness" and "perceived ease of use". In addition, the term "relative advantage" is used since it is a more specific term than "perceived usefulness" (Moore and Benbasat, 1991).

However, there is a need to recognize some other constructs to be included in order to develop a robust and integrated model. As it was found in the original TAM models that perceived usefulness mediated the effect of perceived ease of use on usage, hence, the requirement for the attitude construct was removed from the subsequent versions of TAM models. Also, in the context of SMEs, trialability is among the weakest characteristics of the IDT with a relationship to the adoption of IS innovations (Rogers, 2003). Additionally, it is difficult to try to apply the concept of compatibility to social media because of the ubiquitous and platform-neutral use of this new media. In developed countries, virtually all businesses and most people in developed countries connect to the Internet and social media daily and can see the value of these technologies. For that reason, the researcher eliminated these two variables from this study.

Consequently, this research's main constructs of interest are: Perceived Ease of Use; Perceived Relative Advantage; observability; and subjective norms.

### **2.2.5 Business-to Business (B2B) Firms**

The marketing of goods/services to customers in the industrial, institutional or governmental sectors is termed "Business-to-Business" (B2B). According to Brennan et al. (2007) and Fill and Fill (2005), organisations purchase these products and services in order to contribute to performance or to integrate them in the

production process. Therefore, B2B products/services can be classified according to their use and the extent to which they enter the final product (Brennan et al., 2007; Fill and Fill, 2005). Generally speaking, B2B products are more complex and it takes a long time for products to be developed (Webster, 1991).

Compared to the business-to-customer sector, there are fewer customers in the B2B sector and the co-operation with customers is more intense than in the business-to-customer sector (Hansen, 2012; Hanna et al., 1995). The buying decision requires plenty of information about the industrial products combined with comparing different alternatives (Holt et al., 1984). Brennan et al. (2007) and Keller (2009a) argued about several attributes, including close supplier-customer relationship, extended purchasing process and direct and professional procurement, as being specific to B2B marketing. This resulted in a different style of communication with the goods/services organisational buyer.

B2B marketing communication is an integral part of the marketing tools which are described as “the means by which firms attempt to inform, persuade and remind customers, other individuals and various groups with which the organisation interacts” (Keller, 2009b, p.141). Within this context, the purpose of that type of marketing communication is the development and maintenance of a positive attitude and action or buying of the product/service of an advertiser rather than that of a competitor (Shannon, 1996). For B2B firms, marketing communication plays a crucial role in various ways which include: differentiating between firms, products or services; reminding current or potential customers; informing the customers of organisational issues; and persuading the customers to think and act in a specific way (Fill and Fill, 2005).

Brennan (2007) and Keller (2009a) described, also, two aspects of communication which comprised B2B marketing. These are personal forms of communication, such as personal selling relationship and trade fairs, and non-personal forms which draw on advertising, public relations and sponsorship, sales promotion, corporate and product video productions, press conferences and the Internet. For marketing communication to be efficient, the messages have to be relevant and meaningful to the customers in order to engage the industrial customers at different stages of the

buying process (Garber and Dotson, 2002). This leads to brand awareness and other positive attitudes among potential buyers (Webster and Keller, 2004).

The B2B context tends to be small niche markets with fewer vendor options (Hansen, 2012); these rely heavily on lengthy, close relationships with those vendors to achieve corporate objectives (Belonax et al., 2007). While actual adoption has been slow, there is a growing trend of the importance of social media within the B2B context (Groza et al., 2012). By using social media, B2B firms can become more connected to clients and this could result potentially in increasing revenue, reduced costs and improved efficiencies (Schultz et al., 2012). As mentioned by Ingram et al. (2012) and Safko (2009), B2B firms can benefit from using social media in obtaining leads; building awareness; and maintaining good business networks by communicating and connecting with customers.

#### **2.2.6 Small and Medium-sized Enterprises (SMEs)**

To date, there is no global agreement on the definition of an SME; this may be explained either by the diversity of the businesses which they operate (Carter and Jones-Evans, 2006), or because every country has its own definition of an SME. Bolton (1971) described small firms as firms which were likely to be independent and not part of other firms and which were managed mostly by the owner/manager. Although there are different measures to identify SMEs such as, number of employees, assets and turnover, a large number of previous studies used the number of employees or annual turnover for this purpose. The following Table 2.2 illustrates the different definitions of SMEs used by different countries.

**Table 2.2: SME Definitions**

| <b>Countries</b>                | <b>SMEs Definitions</b>   |
|---------------------------------|---|
| <b>United Kingdom</b>           | The UK government tends to define SME as follows: <ul style="list-style-type: none"><li>- Micro firms: from 0-9 employees.</li><li>- Small firms: from 0-49 employees (including micro).</li><li>- Medium firms: 50-249 employees. (Carter and Jones-Evans, 2006).</li></ul>  |
| <b>Europe</b>                   | The European Union (EU) defined SME as follows: <ul style="list-style-type: none"><li>- Micro firms: number of employees from 0-10 and annual turnover not more than 2 million Euros.</li><li>- Small firms: number of employees from 0-50 and annual turnover not more than 10 million Euros.</li><li>- Medium firms: number of employees from 0-250 and annual turnover not more than 50 million Euros.</li></ul> |
| <b>United States of America</b> | The United States of America defined SMEs as follows : <ul style="list-style-type: none"><li>- Small firms: number of employees from 1-100.</li><li>- Medium firms: number of employees from 101-500.</li></ul> (Hammer et al., 2010).  |

This concentration on SMEs is due to their role since they are considered to be an imperative element in that they provide social and economic benefits. It is widely recognised that they make a great contribution to national and international economic development (Smallbone and Wyer, 2000).

Small firms differ from large firms in many ways. SMEs tend to have smaller market scopes since, specializing in a specific product or service, they are trying always to reduce the cost of production (Storey, 1994; Simpson and Docherty, 2004). Moreover, as mentioned by Bridge et al. (2003), although SMEs firms focus more on survival rather than growth, this growth tends to be incremental and steady.

Additionally, most SMEs are managed by the owners who act mostly as the CEOs of the firms which have centralized organisational structures (Raymond and Magnenat-Thalmann, 1982). In that case, there is a closer relationship between the business and the owner than is found in the large firms between the shareholders and their management teams (Storey, 1994). Hence, an SME' owner has a strong influence on the firm's decisions (Murphy et al., 1996; Storey, 1994). Accordingly, SME managers' entrepreneurial characteristics are essential when determining the

adoption of a new innovation within the firm. Since these small firms have less commitment to existing practices and products, they are more likely than large firms to adopt wholly new innovations (Pavitt et al., 1987).

SMEs find it more difficult than large firms to obtain financial resources (Beck et al., 2008; Reid et al., 1988) and this is considered to be another characteristic/overload of SMEs. It is noted that SMEs are likely to face greater market uncertainty as a result of their limited customer bases and lack of market power (Storey, 1994). Accordingly, risk-taking is regarded as the earliest characteristic of SMEs since, when compared to larger firms, successful SMEs tend to be moderate-risk takers (Storey and Sykes, 1996; Morris and Zahra, 2000). Carter (1996) identified major management differences which distinguished SMEs from large firms. These include short-term planning horizon, limited knowledge of environment, personalized company objectives, informal communication, informal control systems, informal organisational structure, variety of management skills and company performance affected by personal motivations.

SMEs have struggled more than large firms to adopt technology due to their lack of skills, resources and technical knowledge since it is not as well established as in large firms (Beynon, 2002). However, due to their greater flexibility and their need to manage marketing communication costs (Harris and Rae, 2009), SMEs can utilise and benefit from recent developments in technologies such as social media. Moreover, the easy to use, easy to implement and low cost social media applications have encouraged SMEs to adopt them (Kim et al., 2011; Zeiller and Schauer, 2011). SMEs' usage of social media could help in putting them on the same level as large firms (Kim et al., 2011). Additionally, SMEs recognize increasingly that a business opportunity exists in effectively adopting social media through reduced costs of marketing as compared to traditional marketing methods (Harris et al., 2008). Moreover, social media helps to replicate the dimensions of face-to-face interaction in a virtual environment and, by complementing personal contact networking activity (Kaplan and Haenlein, 2011), social media helps, also, to build and maintain networking opportunities (Harris and Rae, 2009). Hence, businesses can take advantage of these connections to market their products/services (Harris and Rae, 2009).

### **2.2.7 Idiosyncratic Characteristics of SMEs' Social Media Adoption and Use**

Generally, SMEs were distinguishable by suffering from limited specific resources including money, expertise and time. These placed them at a disadvantage when compared with larger corporations (Clemons and McFarlan, 1986; Igarria and Tan, 1997; Van der Venn, 2004; Nieto and Fernández, 2005; Angela, 2005; Fuller-Love, 2006).

Iacovou et al. (1995) and Mehrtens et al. (2001) found that, in terms of financial and technological resources, organisational readiness affected small firms' adoption of web-based technologies. In support of this finding, the increased likelihood that IS becomes implemented successfully within a firm can be achieved through the investment of adequate financial resources (Ein-Dor and Segev, 1978). Furthermore, this notion is supported by reports that an increased level of allocation for IS investment strengthens the likelihood of its successful implementation in small firms (Thong, 2001). As a result, this enables them to draw on more experienced external experts and to implement appropriate IS solutions to address their needs. However, other researchers implied that, given the recent reductions in computer hardware and software costs, the primary limitation to the uptake of IT in SMEs was not the cost of its implementation (Dibrell et al., 2008; Wu et al., 2006).

When using a new technology, most of the challenges faced by companies are not new since they have been experienced in other contexts. Despite the novelty of the challenges associated specifically with the use of social media, its adoption and use could benefit from lessons learnt from other types of managerial IS usage. Key to its successful use as marketing tool is the allocation of sufficient financial and human resources to the use of social media as well as a review and improved online presence (Constantinides, 2008). However, despite the social media infrastructure being easily available, organisational opposition and arguments against the cost and resource requirements are still relevant topics (Ihlström et al., 2002). Given that the benefits of using social media will be minimal if a company attempts to devote limited resources to its realisation, a sizeable degree of commitment is required if social media marketing is to be implemented successfully (Barefoot and Szabo,

2010). A company must realize the necessary time commitment and either accept or reject that commitment as plausible for its operation.

Moreover, a number of researchers, including Cragg and Zinatelli (1995), Fink (1998), Bruque and Moyano (2007), and Strüker and Gille (2010), argued that the absence of internal IT skills, exhibited by the majority of SMEs compared with their larger counterparts, was a situation which might impact negatively on the process of IT implementation. Consequently, such skills are required for the use of new technology. 1995 longitudinal research reported a significant limitation to IS progress and development in SMEs which possessed insufficient in-house expertise (Cragg and Zinatelli, 1995). Caldeira and Ward (2003) stated, also, the importance of focusing on in-house IS/IT knowledge and skills in order to achieve the optimal level of technology adoption and subsequent SME satisfaction.

Accordingly, Fillis et al. (2003) highlighted the importance of ongoing training and development of the necessary skills so that SMEs could implement E-business successfully. SMEs encounter the initial costs of start-up hardware and software along with those incurred through investing in staff training and development during the different stages of IT adoption (Nguyen, 2009). In order to understand the implications and to develop the distinctive capabilities needed to perform well, it is important that SMEs are competent in E-business (Grandon and Pearson, 2004). With regard to selected manufacturing SMEs, Caldeira and Ward (2003) identified that the development of internal IS competence determined the relative success in the adoption and use of IS.

Hence, in social media context, the importance of staff competence and their understanding of the impact of using social media on their business are underlined since the staff, also, use and contribute to social media contents. Real benefits can be obtained when qualified employees are permitted to manage the firm's social media presence in order to address customer feedback (whether positive or negative) (Kim et al., 2010). Firstly, they need to monitor the content created by users in social media applications (Brown, 2010; Sterne, 2010) and to develop recognised systems and rules to be used when processing incoming social media messages. These rules should include criteria for deciding which transactions are worth responding to and

the manner in which to respond to various kinds of transactions or messages (Brown, 2010; Culnan et al., 2010).

Hsu et al. (2007) argued that positive communication behaviour could be supported through the development of trustworthy relationships between individual users and the media platform. This situation may be facilitated through previous experience given that the likelihood of users adopting new technologies may be dependent on their past experiences. Lee and Ma (2012) illustrated that the experienced benefits and developed trust could emerge when users were allowed time to interact with social media platforms. Accordingly, experience can reinforce the usage of a social media platform and make this usage regularized and ritualized (O'Brien, 2010).

The industry sector, to which a firm belongs, may influence its decision to use and, consequently, benefit from using a given innovation. Previous studies on E-business use context indicated that the engagement of SMEs in the use of e-business applications was extremely varied since, compared to more standardized products, the highly customised products would require different types of information (Harland et al., 2007). Moreover, Tiago and Martins (2010) found that the technological context was more important for the manufacturing industry than for the tourism industry. However, Michaelidou et al. (2011) found that there were no statistical differences between industry sectors (goods and services) in respect of their usage of social media. Smith et al. (2015) concluded that there was no significant difference in the mean adoption of social media between industry types (manufacturing, retail and services firms).

Small firms can increase the likelihood of successful implementation of IS by using IS planning (Thong, 2001). For successful IT planning, SMEs should determine why and how IT can enhance their business processes and profitability and, then, develop a strategy to obtain the anticipated results (Love, 2005). The use of such a strategy would allow the SME to determine the likely risks and benefits associated with a given IT approach and, thus, maximise the benefits of its adoption (Blili and Raymond, 1993).



When it comes to the social media context, E-consultancy (2011) showed that, compared to the previous year, significantly more companies were planning to increase investment by 13% in user generated, by 9% on on-site branded communities and by 8% on rich on-page interactive experiences. Also, 77% of Inc. 500 companies used social media in 2008 and this increased to 91% in 2009 (Schweitzer, 2009). In response to a survey, McKinsey (2010) mentioned that two-thirds of the respondents reported using Web 2.0 in their organisations and, from the previous year's survey, there was an increase in the percentage of companies using social networking (40 percent) and blogs (38 percent). Also, from their survey, Altimeter (2013) concluded that companies planned to increase spending on social media platforms. B2B magazine's recent research showed that the overwhelming majority of B2B marketers were engaged in social media marketing through platforms such as Twitter, Facebook and LinkedIn (Holden-Bache, 2011). Furthermore, according to Forrester Research, B2B organisations were forecast to spend \$54 million on social media marketing in 2014, an increase of \$11 million from 2009 (Odden, 2011).

Companies need to determine upfront the objectives of implementing a social media strategy and how to achieve these objectives prior to engaging in social media activities. Ormond (2012) and Prohaska (2011) argued that SMEs had to set first their social media adoption goals and decide whether these goals were for marketing or managing customer relationships. Johnston (2011) shared a similar point of view that without a specific goal it was difficult to know whether or not the adoption of social media had been successful. There is a necessity for marketers to formulate a social media plan with clear objectives which can be incorporated into the entire marketing mix and with other online marketing tactics (InSight24, 2008; Davis Kho 2008; Moran, 2008; Marketo, 2012).

Hoffman and Fodor (2010) argued that marketers ought to invest in determining the objectives to be achieved by the social marketing strategy rather than the specific platform to use, and that they invest in the tools and their corresponding metrics to achieve these objectives. These efforts can be served best by establishing objectives and metrics to ensure optimum investment in time and resources for social media marketing. Fisher (2009) and Ramsey (2010) supported this approach by stating that

the specific aims had to be defined in order to assess the outcomes and advantages which they conferred. Activeness in social media itself is not an actual useful objective; this is because the activeness without a purpose does not necessarily bring value to an organisation (Blanchard, 2011), or the value might turn out to be even negative due to e.g. either leaking of information or inappropriate responses to a received feedback.

In establishing a social marketing plan, Li and Brnoff (2008) formulated an approach which considered people, objectives, strategy and technology. This is known as the POST method as follows:

- People: this aspect of the strategy considers the customer base and social media platforms which they use currently to determine the online interests of customers. The objective is to establish what users like to do on social media and the platforms that they use. This is the time to put the effort into researching where the customers spend the most time online and typically what they enjoy doing on social media.
- Objectives: with regard to goals, organisations should determine upfront the precise short-term and long-term goals of its planned social media marketing strategy. Social media marketing may be thought of in two separate categories – ongoing strategies and campaigns (Zarella, 2010).
- Strategy: social marketing efforts may be formulated through the use of five core strategies commonly used by organisations (Li and Bernoff, 2008). These strategies are: listening or studying customers opinions on the companies' products or services; communicating through social media to disseminate news, suggestions, and ideas to customers; energizing or seeking and developing evangelists among the customer base; supporting or facilitating customers network to help each other; and embracing or involving customers in the business in order to develop products and to achieve the objectives.
- Technology: the specific technology implemented by a company in order to meet its objectives and connect with its customers. Hence, the available social media tools should be evaluated and selected for optimal performance. Weinberg

(2009) suggested that, regardless of the platform used, the organisation had to distinguish itself on the platforms on which it has a presence.

The development of a strategy is essentially a continuous process which needs to be reviewed, revised and reformulated continuously (Kotler et al., 2002). Evans and Bratton (2008) argued that this approach resulted in the use of information to modify and improve what was offered and how it was offered. Although the value of this approach was acknowledged, the methods for evaluating potential strategies remain underdeveloped. This is, in part, as a result of a lack of precise objectives which would define the measures to be used and the concept of effectiveness (Murdough, 2009). Consequently, the connection between organisational objectives and social media activities is not easily formulated (Culnan et al., 2010).

Levy and Powell (2000) argued that the incorporation of IS planning into business strategies was both necessary and critical to effective SME growth since both business strategy and IS strategy became intertwined. In situations where SMEs adopt IS with the sole objective of increasing production processing without incorporating, also, other systems, any competitive advantages may arise through chance rather than planning (Levy et al., 2001). Furthermore, with inadequate management, promising IT projects can fail to be implemented successfully and, thus, as Ayman et al. (2008) argued following a review of related literature, this highlights the need for strong IT project management. Other researchers (Rice and Hamilton, 1979; Bili and Raymond, 1993) described how issues might arise in the SMEs' implementation of IT through short-term strategic decision making cycle and insufficient planning.

Hence, when it comes to social media, it is very important to integrate, also, the social media marketing strategy with the overall marketing strategy. If this is not done and potential users of social media marketing are not taken into account in the overall marketing strategy, the communication becomes confused and badly aligned (Heckadon, 2009). For instance, a brand's offline promotions should be integrated with its promotion through social media (Kessler, 2010). Similarly, Sharpe (2011) asserted that social media marketing had the greatest effect when used in combination with other communications strategies and as part of the conventional

overall marketing strategy. While social media may never replace traditional media entirely, social media is becoming rapidly a crucial part of the marketing mix and is included in almost every organisation's plans for growth (Marketing Profs, 2010). In addition, Solis (2010) mentioned that it was essential to integrate social media in the overall business strategy.

In applying the social media strategy, the crucial challenge is to transform marketing from being addressed only to a target group to encouraging the members of this group to make their own content. This can be done through sharing perceptions and ideas, useful to the organisation (Pentina et al., 2012; Drury, 2008; Weinberg, 2009; Ontario, 2008; Urban, 2003), which can have a positive/negative impact on an organisation according to how these customers present the organisation online (Roberts and Kraynak, 2008; Constantinides and Fountain, 2008). Despite this being beyond the control of marketers (Mangold and Faulds, 2009; Gillin and Schwartzman, 2011), it is important to know the mechanisms of the influences factors, which impact on the customers behaviours (Constantinides and Fountain, 2008), because consumers view this information as being more reliable than direct marketing communications which affect their buying behaviours (Weber, 2009; Akar, 2011). It is clear that social media has and will continue to play a strong role in marketing while changing its different aspects including customer to customer and customer to company communications (Patten and Keane, 2010). This is characterized through a multi-directional participatory discussion generated by users (Awareness, 2008; Clemson, 2009).

According to Constantindies and Fountain (2008), the rise of social media is both a blessing and a curse for marketers. Even for small firms, social media allows those firms to compete with larger firms without requiring tremendous investments (Kaplan and Haenlein, 2010). Consequently, this is considered to be a great advantage for small firms benefitting from its use (Kaplan and Haenlein, 2010). These numerous marketing advantages are considered to be the tools of concern to the firm in influencing the conversations (Safko and Brake, 2009). Compared to marketing through conventional media, social media marketing provides a firm with a more rapid and cost-effective method of communicating with highly-targeted markets. This can result in increased site traffic and promotion through word-of-

mouth; both can add to the organisational dynamic capabilities through engaging with customers. Accordingly, brand recognition; ability to manage reputation by maintain or even improving the corporate image; reaching out to and attracting new customers; and increasing a return on marketing investment can be achieved (e.g. Schindler, 2001; Tuten, 2008; Micek, 2008; Bughin and Hagel, 2000; Stelzner, 2009; Abedeen Group, 2009, Weber, 2009; Mazurek, 2009; Stelzner, 2009; Singh et al., 2010). Furthermore, Kosalge and Tole (2010) proposed that there were the following 11 distinct corporate advantages of using Web 2.0: 1) modification or development of a business processes; 2) formulation of new business processes; 3) assistance in creating new product/services; 4) allowing small firms to compete with larger ones; 5) attracting new customers; 6) facilitating customers and suppliers to contribute to their operations; 7) incorporating the organisation into customers, suppliers, and/or employee communities; 8) providing virtual team collaboration for improved decisions making; 9) accumulating intelligence from the global workforce; 10) reducing costs; and 11) engaging employees and keeping energy levels high. Additionally, B2B firms are utilizing social media tools, such as Blogs, Facebook, LinkedIn, Twitter, Flickr for certain marketing purposes in order to increase awareness; to generate leads; and to improve customer service (Bondar and Cohen, 2012; Gillin and Schwartzman, 2011, Handley and Chapman, 2011).

On the other hand, there are some disadvantages from using social media marketing. There is a risk that unintentionally employees may reveal sensitive corporate information and this could affect the firm's reputation (Everett, 2010). Although some have expressed doubts about potentially unfavourable feedback damaging a firm's reputation, growing numbers of firms are using social media to interact with their stakeholders (Rayner, 2003; Wright, 2005; Weil, 2006; Gillin, 2007). As suggested by Wigmo and Wikström (2010), this position stems from the fact that such information originates from the customer and not from the firm. A business's own communication activities, such as their responses to claims presented in the social media, can jeopardise, also, their reputation (Aula, 2010). Additionally, the risks include intellectual property leaks and infringements of the company's policies or codes of conduct (Culnan et al., 2010; Brown, 2010; Sterne, 2010; Kietzman et al., 2011). In this respect, Gartner argued that "The same Web 2.0

characteristics that enable creativity, productivity and collaboration also make the Web 2.0 ecosystem prone to successful attacks and theft.” (Chess, 2009).

### **2.3 Conceptual Framework and Research Hypotheses**

The main aim of this research is to explore the use of social media by B2B SMEs and the impact, if any, that social media has on their exporting performance. Therefore, this research addresses the following questions:

- What are the innovation characteristics that drive the SMEs B2B firms’ use of social media for export purposes?
- Does the firm’s training and innovativeness influence the relationship between the use of social media and the perceived ease of use, perceived usefulness, observability, and subjective norms? If so, how?
- How do the number of international business contacts, quality of international business contacts, brand awareness, understanding customers’ views and preferences, and understanding competition in different markets interact in explaining export performance?
- Does customer engagement affect the relationship between the use of social media and the number of international business contacts, quality of international business contacts, brand awareness, understanding customers’ views and preferences, and understanding competition in different markets?
- Does cultural adaptation affect the relationship between understanding customers’ views and preferences and competition in different markets and export performance?

The advent of the Internet revolution in the 1990s persuaded many scholars and practitioners to the view that the Internet offered the ultimate tool for effective management of the relationships between a firm and its stakeholders (Hoffman and Novak, 2000; Rayport and Sviokla, 1995). Bridge et al. (2009) described an SME as a transformative enterprise which was committed to continuous development and growth. However, according to Harris et al. (2008), SMEs have met frequently

challenges in their adoption of technology since they have fewer skills and resources and less technical knowledge than large firms.

Martin and Matlay (2001) stated that the adoption and implementation of new technologies was vital to the continued existence and expansion of SMEs. Similarly, in their investigation of the factors involved in the UK SMEs' acceptance of IT, Chaston et al. (2001) found that SMEs adopted new ideas rapidly and were willing to make full use of new knowledge which gave them a competitive advantage over their rivals. Ramsey et al. (2003) argued that the principal motivation for the SMEs' adoption of new technologies related to the benefits from these technologies in such fields as reduced transaction costs, lower risk, the collection and dissemination of information, enhanced inventory and quality control, better relationships with customers and suppliers, and more control over the distribution and marketing of products. As a new way of doing business, the marketing activities, promoted by the implementation of new technologies, offered firms the opportunities to create more intimate relationships with their stakeholders (Brodie et al., 2007). If SMEs use the new technologies effectively, this can offer them the opportunity to benefit from ICT in order to improve the manner in which they conduct business and to expand their core competencies (Selamat et al., 2011).

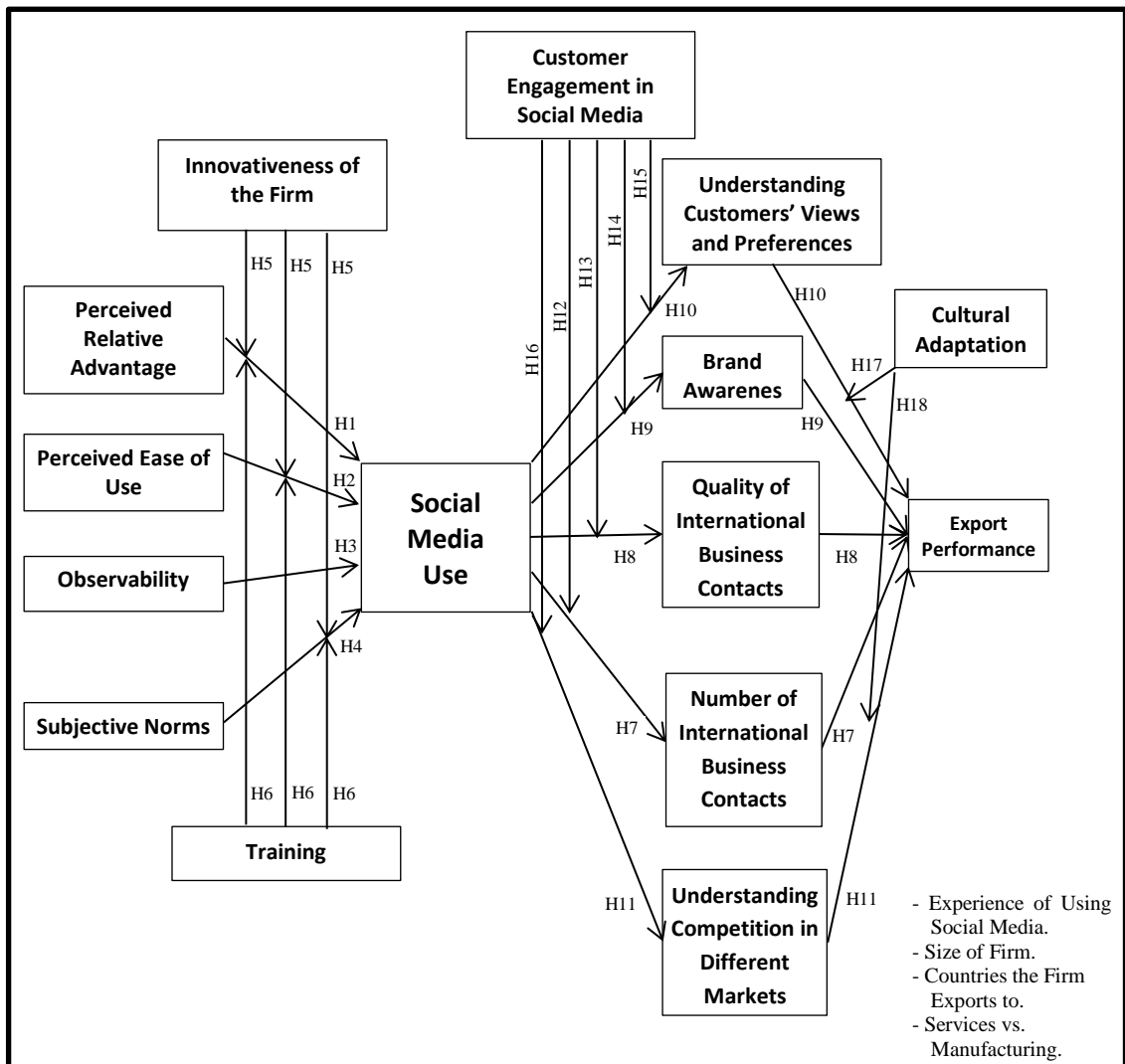
Drury (2008) argued that many SME firms were concerned about the necessity of engaging with social media in order to remain competitive. However, the speed of the development of social media appears to have surpassed current efforts of academic research (Kietzmann et al., 2012); this means that a defect exists in our understanding of the social media adoption process in the SMEs context (Meadows-Klue, 2009). Kietzmann (2012) supported this idea by citing the lack of research into the adoption and implementation of social media by such enterprises. Moreover, as asserted by Groza et al (2012), there is still limited knowledge about the factors which lead to the sales force's use of social media especially within the B2B context. Understanding the drivers of social media marketing usage by SMEs may help to provide advice and guidance for companies in the process of strategic marketing planning and budget allocation in addition to help academics in the development of strategic marketing in the area of social media marketing (Pentina et al., 2012).

Additionally, some authors, also, highlighted the potential influence of the firm's social media usage on IB and export marketing strategies (Berthon et al., 2012; Maltby, 2012) because these applications may help break down barriers of time and distance between the supply and demand sides (Constantinides et al., 2008). IT capability can potentially lead to high performance in exporting companies due to (1) the pursuit of high, value-added IT applications to maintain a competitive edge; (2) the reduction in the costs of communicating with foreign customers/suppliers and of gathering information about foreign competitors; and (3) the support/enhancement of distinctive competencies and skills in other business functions. Hence, by further development and deployment of IT capabilities in general and in social media technologies in particular, companies now have a greater ability than ever to take advantage of domestic and (primarily) international market-growth opportunities (Mathews et al., 2012) and, therefore, their current use of those capabilities and technologies may have unique implications for improving international marketers' strategy and performance.

In order to achieve this research and to answer the previous research questions, the researcher developed the conceptual framework shown in Figure 2.12. The researcher developed this framework to meet the main research objectives in terms of SMEs' B2B use and implications of social media. This model outlines the relationships between constructs proposed in **18** hypotheses developed in the subsequent sections.



**Figure 2.12: Research Model**



However, it might be better to break this conceptual framework into parts by presenting individual hypotheses which will be discussed in the following sections.

### 2.3.1 Adoption/use of Social Media as an Innovation

This study investigates the determinants of adoption of social media, which are different from traditional information technology as they address collective behaviour and interdependence among community members. This social media derives from an information technology innovation; hence, the determinants of adoption behaviour of such platforms can be investigated from an adoption of

innovations point of view. In recent years, a number of influential models investigating adoption/use of social media have emerged.

Use of the Decomposed Theory of Planned Behaviour (DTPB) permits a greater understanding of the relationship of the antecedents and allows, also, the discovery of specific factors which impact on the adoption or use of new technology (Taylor and Todd, 1995). With regard to the Perceived Usefulness (PU), it was found that the greater the perception of usefulness or of advantage, the more likely the new technology was adopted (Hsu and Chiu, 2004). Potential users are less likely to accept and use technologies which they see as being more complex. Moreover, ease of use has been reported as being a significant determinant in the decision to adopt and use technology (Jaruwachirathanakul and Fink, 2005).

From the Technology Acceptance Model (TAM) perspective, this view concurred with Adams et al. (1992) who found that the two principal constructs in the TAM, Perceived Usefulness (PU) and Perceived Ease of Use (PEOU), which were suggested as being basic determinants of user acceptance of IT, could have broad applications. Grandon and Pearson (2004) suggested that PU and PEOU were among the most important factors influencing SMEs' adoption of the Internet. In the same vein, Awa et al. (2010) asserted that PU and PEOU would have significant effects on the SMEs' adoption of Internet technology. Also, Dlodlo and Dhurup (2013); Eid (2010); and El-Gohary (2012) concluded that PEOU was a significant driver in the adoption of e-marketing. Stefansson (2002) stated that exponential growth of the use of Internet in the B2B context was due to the fact that it was relatively easy to use. In accordance with this view, Christodoulides et al. (2015) and Siamagka et al. (2015) found that PU affected the adoption of social media in B2B contexts. In contrast, PEOU was not found to be significant predictor of both adoption and PU (Christodoulides et al., 2015) but PU was a significant predictor of the adoption of social media in the B2B context (Siamagka et al., 2015). In addition, Hoffman et al. (1995) found that the convenience of access was a core element in the adoption of a technology. Similarly, Parker and Castleman (2009) concluded that the adoption of Internet marketing depended on its PU. Ramayah et al. (2003) assessed SMEs' acceptance of web-based supply chain management through the TAM and concluded that PU predicted the acceptance of this technology. Pinho and Soares (2011)

concluded that PEOU had a direct impact on the attitude toward social networks. However, Hossain and De Silva's findings (2009) concluded that PU affected the individual adoption behavioural of social networks.

From the Innovation Diffusion Theory (IDT) standpoint, Premkumar (2003) stated that very few studies had investigated the impact of technological features in the context of SMEs. Grandon and Pearson (2004); Lee et al. (2004); and Eid (2010) reported that an IS innovation was more likely to be adopted when it was seen to offer a relative advantage over the firm's current practice. In the same vein, Moore and Benbasat (1991); Thong (1999); Cragg and King (1993) supported this view more particularly in the context of SMEs. It was suggested that relative advantage was one of the most frequently tested five characteristics and the most consistent predictor of adoption (Plouffe et al., 2001; Teo and Pok, 2003). Complexity was found to have a negative association with the adoption of IS innovation in general (e.g., Cooper and Zmud, 1990). However, it was found, also, to be a key determinant in the context of the SMEs' adoption of IS innovation (e.g. Lertwongsatien and Wongpinunwatana, 2003; Thong, 1999), since the complexity of the user interface reduces evaluation of the system and lessened, also, the SMEs' intention to adopt specific internet technologies (Opia, 2008).

On the other hand, compared to the previous studies which confirmed the relationship between PU, PEOU and behavioural intention/actual behaviour regarding the new technology, some studies illustrated different results in these relationships. With regard to the relationship between PEOU and the use of technology, there were some previous studies which illustrated an insignificant relationship between them. Karahanna et al. (2006) concluded that there was an insignificant relationship between PEOU and usage of the technology. Also, Igarria and Iivari (1995) found that PEOU of microcomputers had an indirect effect on usage through PU but there was an insignificant direct relationship. They argued that experience might be one of the moderating factors which caused this different result in the relationship between PEOU and consequent behaviours. In addition, Subramanian (1994) stated that the reason for this difference might be the complexity of the system being used since they found an insignificant relationship between PEOU and predicted future usage. Venkatesh and Morris (2000) found that

gender had a moderating effect on the PEOU related linkages and that might have caused the insignificant results. When compared to women, men were influenced more strongly by PU whereas women were influenced more strongly by PEOU and subjective norms. El-Gohary (2012) and Fenech (1998) concluded that PU had an insignificant effect on the innovation usage.

Consequently, the researcher constructed the following hypotheses:

*H1: There is a positive direct relationship between the perceived relative advantage of social media and its use for export purposes.*

*H2: There is a positive direct relationship between the perceived ease of use of social media and its use for export purposes.*

From the Innovation Diffusion Theory (IDT) standpoint, Zhang et al. (2010) and Rogers (2003) found that, compared to the other factors, the perception on observability exerted the minimum weight in affecting the behavioural adoption. On the other hand, some studies found that observability had a positive impact on the users' attitudes and intentions to use the system (Lee, 2007). The more visible the results of an innovation, the more likely the innovation would be adopted rapidly and implemented (Tornatzky and Klein, 1982). Additionally, Wei (2001) found that only observability continued to have a significant impact on the likelihood of adoption. Accordingly, since the social media phenomenon can be observed and is transferable through word-of-mouth and peer-to-peer recommendation (Haridakis and Hanson, 2009), this characteristic of innovation can be tested. Consequently, the researcher constructed the following hypothesis:

*H3: There is a positive direct relationship between the observability of social media and its use for export purposes.*

Moreover, there is an element of social influence which is absent in either the TAM or the IDT. Fishbein and Ajzen (1975) defined Social Influence (SI) in the TRA as an individual's perception of the importance of what others thought about his/her carrying out a specific behaviour or not as the case might be. However, in the TPB, subjective norms or SI refer to "the perceived social pressure to perform or not to perform a particular behaviour" (Ajzen, 1991).

Some studies, which used Theory of Reasoned Action model (TRA), found that both attitude and subjective norm were the important determinants of peoples' intentions to adopt and use ICTs (Brown, et al., 2002; Karahanna, et al., 1999). In addition, a number of studies investigated the influence of subjective norms in various behaviours and situations such as intelligence and security informatics technology (Hu et al., 2005); blogging (Hsu and Lin, 2008; Wang et al., 2010); education (Robinson, 2006) and communication (Webster and Trevino, 1995). These were found to have a direct effect on behavioural intention for adoption. Additionally, Lukas and Spitler (1999) found that SI was shown to be a stronger predictor of intended use than either PU or PEOU. Hossain and De Silva (2009) concluded that the influences of different peers had an effect on an individual's intention to use an information system. Schepers and Wetzels (2006) found the influence of subjective norms on behavioural intention to use the technology.

Researchers, including Hsu and Chiu (2004) and Liao et al. (2007), implemented the TPB as a theoretical basis for the adoption and use of ICT and found significant relationships between attitude, subjective norms, perceived behavioural control and behavioural intention.

Empirical testing of Unified Theory of Acceptance and Use of Technology (UTAUT) showed that performance expectancy, effort expectancy, and social influence had significant relationships with the intention to use technologies (Venkatesh et al., 2003).

For SMEs, Nasco et al. (2008) found that there was a direct relationship between a construct of TPB comprising subjective norms and the adoption of e-commerce. In supporting this view, Harrison et al. (1997) suggested that a positive attitude towards certain behaviour, e.g. the adoption of an e-business application in the context of SMEs, was based on the extent of subjective norms (social expectations). Pentina et al. (2012) found that SI affected the intention to adopt social media technology both directly and by affecting the perceptions of the technology's usefulness.

On the other hand, some previous studies found that there was no significant relationship between subjective norms, PU and behavioural intention. For example,

Mathieson (1991), Deng et al. (2011), Wong et al. (2013) found an insignificant relationship between the SN and behavioural intention.

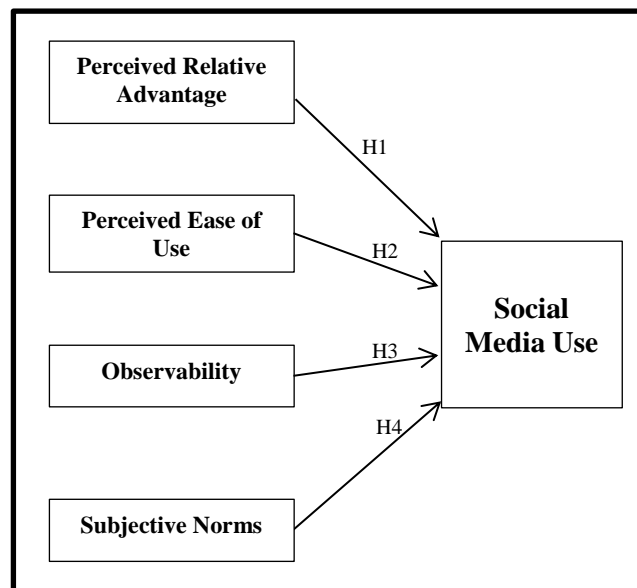
On this basis, the researcher constructed the following hypothesis:

*H4: There is a positive direct relationship between the subjective norms and the use of social media for export purposes.*

It could be concluded from the previous discussion that although there was an increasing academic interest around some of technology acceptance theories within IT/MIS domain, some research employed these theories from a customer perspective (see Zolkepli and Kamarulzaman, 2011; Van Raaij and Schepers, 2008; Pinho and Soares, 2011; Li et al., 2011; Macredie and Mijinyawa, 2011; Hossain and De Silva, 2009; Wang et al., 2010); and from an internal enterprise perspective (workspace) (Gunther et al., 2009). However, in the B2B context and with the exceptions mentioned below, the researcher is unaware of previous research in social media field which applied technology acceptance theories, the exceptions are the study by Veldeman et al., (2015) who applied TAM; Christodoulides et al. (2015) who applied the extended TAM; and Siamagka et al. (2015) who used the extended TAM and resource-based theory. In the SMEs context, Pentina et al. (2012) applied extended TAM. However, none of these studies gave a better view by integrating TAM with IDT for better prediction of social media use within that context.

Based on the previous discussions, the following framework could be presented.

**Figure 2.13: Factors Affecting the Use of Social Media by SMEs B2B Firms**



### **2.3.2 Organisational Capabilities and its Effect on Use of Social Media**

In the field of strategic management, Habbershon and Williams (1999) argued that a firm's idiosyncratic characteristics were considered to be an advantage which ought to be developed to its benefit. The resource-based theory asserts that it is the idiosyncratic (unique) bundle of the firm's resources, which are valuable, rare, and difficult to imitate, that gives it an opportunity of competitive advantage and superior performance (Rumelt, 1991; Wernerfelt, 1984).

According to the resource-based theory, it is more appropriate to think of a firm as a collection of physical capital resources, human capital resources, and organisational resources (Barney, 1991). Grant (1991) classified the resources essentially into tangible, intangible, and human-based resources. The organisation's finances and physical equity, including plant, equipment, and stocks of raw materials, can be considered tangible resources while resources, such as reputation, brand image, and product quality, are considered to be intangible resources. Technical expertise and other knowledge-based factors, such as corporate culture, staff training and loyalty, are examples of human-based resources. Consequently, IT capabilities, which include technical skills along with other managerial/organisational resources (Bharadwaj, 2000), enables the firm to adopt new technology effectively. Accordingly, idiosyncratic characteristics, such as the firm's innovativeness and training, can be seen to affect the adoption of new technology such as social media. This is discussed in the following two sections.

#### **2.3.2.1 The Moderating Role of the Innovativeness of the Firm**

Most researchers use innovation and innovativeness interchangeably depending on whether a study assesses the outcomes of the innovation process or the process of innovation itself (Damanpour, 1991; Salavou, 2004). Innovativeness describes the organisation's orientation to promote new ideas, novelty, and creative processes leading to new and innovative products, technology, or processes (Lumpkin and Dess, 1996). In accordance with this view, firm innovativeness is defined as the "capability of a firm to be open to new ideas and work on new solutions" (Kunz et al., 2011, p.817). Based on the previous research, Leavitt and Walton (1975) defined

innovativeness as openness to new experiences and often going out of the traditional ways to experience different and novel stimuli particularly of the meaningful sort. On the other hand, innovation can be defined as new product, service, ideas, technology, process, and structure either through generation, acceptance, adoption, or implementation (Damanpour, 1991; Zaltman et al., 1973).

According to Bhatnagar et al. (2000), there are risks associated with adopting an innovation due to its inherent novelty. Differences among individuals as to what constitutes innovativeness mean that some are more open to risk-taking than others (Rogers, 2003). Innovative users feel less perceived danger and are much more open to new technology. Accordingly, these users, who have higher innovativeness, accept new technology more readily (Lee et al., 2011; Luo et al., 2010).

The significant role of innovativeness in new technological applications has been studied in various contexts such as web information services (Agarwal and Prasad, 1998); online shopping (Bigne-Alcaniz et al., 2008; Eastlick et al., 1999; Limayem et al., 2000); e-learning (Van Raaij and Schepers, 2008); and blogging (Wang et al., 2010). More specifically, previous research illustrated that, with regard to innovativeness, the more innovative B2B firms were more likely to adopt new technologies such as social media platforms (Michaelidou et al., 2011; Wamba and Carter, 2013). Given that the B2B firms are slower than B2C in adopting social media (Michaelidou et al., 2011), hence, innovativeness may play an essential role in usage of social media within this context. Also, one can argue that as SMEs have a less hierarchical organisational structure and a close relationship between customers and managers when compared to larger firms, this may trigger SMEs willingness to explore innovations. (Angela, 2005);

Agarwal and Prasad (1998) argued that innovativeness moderated the relationship between perceptions of IT characteristics and behavioural intentions to use. These firms with higher levels of innovativeness are considered to be more likely to create favourable intentions to use the new IT than those with lower levels of innovativeness for the same level of perceived innovation characteristics (Agarwal et al., 1998) since they are much more open to new technology. In the same vein, Eastlick et al. (1999) concluded that users, who scored highly on the innovative



scale, were more likely to exert a higher behavioural intention than those who scored lower on the same scale.

In more detail, Agarwal and Prasad (1998) found that the interaction between compatibility and innovativeness were statistically significant on intentions but that other factors indicated non-significant relationships (Agarwal and Prasad, 1998). On the other hand, Tsou (2012) concluded that, with greater innovativeness, a positive relationship between compatibility and attitude was strengthened significantly and attenuated between relative advantage and attitude. In support of this view, Yi et al. (2003) found that innovativeness influenced the relationship between PU and behavioural intention given that individuals, drawn to high levels of innovativeness, were more interested in adopting new IT. This was because, compared to individuals with low innovativeness, they might cope with the complexity of the new technology and perceive its relative advantage (Faiers et al., 2007). Mohammadi (2015) asserted that there was a moderation effect of innovativeness on the relationship between ease of use and behavioural intention. However, no moderating effect of innovativeness was found between any of the innovation characteristics and behavioural intention (Yi et al., 2006). Siamagka et al. (2015) asserted this view as no support was found for the moderating effect of the firm's innovativeness on the relationships of both PU and PEOU with B2B firms' adoption of social media.

Lee et al. (2007) concluded that innovativeness moderated the relationship between subjective norms and intention to use the innovation. In the same vein, Gumel and Othmam (2013) argued that SI on the adoption of innovation would vary when innovativeness was set to moderate the relationship. This was because, compared to high innovative people, low innovative people were more open to SI. Based on the previous discussion, the researcher constructed the following hypothesis:

*H5: Innovativeness of the firm enhances the relationship between social media's innovation characteristics (perceived ease of use, perceived relative advantage, and subjective norms) and its use for export purposes.*

### **2.3.2.2 The Moderating Role of Training**

A number of researchers highlighted the key role of training in the adoption and continued use of new technology, most notably Rogers' (1994) study of computer supported cooperative work. SMEs' successful adoption and use of e-business rely heavily on the investment in staff training which leads to the appropriate competencies (Fillis et al., 2003). Furthermore, Grandon and Pearson (2004) stated that SMEs' competence in e-business was required to understand the implications of developing the distinctive capabilities needed to perform well. Roberts (1995) suggested that, in order to achieve a successful implementation, all staff ought to be trained in IT implementation and not only the operational users. On the other hand, several studies found that lack of training was an obstacle to the successful implementation of IT success in enterprises (Drury and Farhoomand, 1996; Parker, 1997; Del Aguila-Obra and Padilla-Meléndez, 2006).

When it came to social media, training was found to be another significant element which influenced participation in social media. Since employees are, also, users and contributors to social media content, it is imperative that they understand the impact of social media on the business and undertake training to improve their competencies (Paroutis and Al Saleh, 2009). Many employees indicated that they did not use social media either because they did not know how to use the tools or because they had tried to do so but had given up when they met with difficulties (Paroutis and Al Saleh, 2009). Buehrer et al. (2005) found that the most frequently stated barrier was the lack of training which was needed when people were unfamiliar with a particular technology.

The provision of employee skills in technology use and the offer of continued support during implementation are obvious ways to deal with the lack of training. As stated by Spredfast (2012), this ongoing guidance can be implemented through: regular training sessions; aggregate and shared external conferences; webinars and industry articles; and regular strategy reviews. Supported by Paroutis and Al Saleh (2009), training is of great significance as regards the provision of the necessary education to allow employees to gain the full benefits of the tools. In addition, Koch and Espinola (2010) found that firms had demonstrated the importance of

implementing social media training for existing employees. This view was supported by Spredfast (2012) who referred to social media etiquette through teaching employees how to use the most popular channels for maximum impact as well as in terms of expressing a commitment to social media and an investment in the employee. Both of these have a positive effect on successful social media. In accordance with this view and with reference to their survey, Altimeter (2013) concluded that firms planned to increase spending on social media training. Therefore, training and awareness programmes, run by certain firms to make staff familiar with the new method of doing business, appeared to have a considerable effect in improving understanding of the system and technologies. In turn, this resulted in the new media being more successful (Chan and Swatman, 2000).

Rogers (1983) identified complexity as one of the factors which influenced the adoption of innovations by end users. Therefore, end users are more likely to reject innovations which either are technically complex or require advanced skills for users or need expert support (Attewell, 1992; Rogers, 1983). Accordingly, training has a strong effect on successful implementation especially with the conditions of high technical complexity that may inhibit end-user adoption of such innovation (Attewell, 1992; Kang and Santhanam, 2003). Expert trainers are often the primary source for such knowledge and, therefore, formal training is a critical intervention through which end users acquire such knowledge (Sharma and Yetton, 2007). In the same vein, Yi et al. (2006) found that PEOU's influence on the use of technology moderated with experience in using computers. This can be used as a proxy for training. Hence, for those with little experience of computer, the PEOU influences the use of technology more strongly than for those who are highly experienced in using computers. Moreover, Davis et al. (1989) and Szajan (1996) found that ease of use became insignificant with increased experience.

Additionally, over time PU remains a significant influence on behavioural intention (Davis et al., 1989; Venkatesh and Davis, 2000; Venkatesh and Morris, 2000). Taylor and Todd (1995) found that experience moderated the relationship between PU and behavioural intention. Accordingly, the highly experienced users use PU in forming their future behaviour since they base their evaluation on more in-depth analysis. In addition, in the case of adoption, perceived relative advantage was

among the significant predictors for different experience levels (Karahanna et al., 1999).

Finally, previous studies found a significant relationship between subjective norms and use of the innovation (e.g, Hartwick and Barki, 1994; Moore and Benbasat, 1993). On the other hand, Davis et al. (1989) and Mathieson (1991) did not find a significant relationship between subjective norms and behavioural intention and use. Consequently, according to Taylor and Todd's (1995) argument, this inconsistency in the relationship between these two variables might depend on the implementation phase of the technology. This is because the early stage of implementation was to be more important when users had only limited experience of the technology (Hartwick and Barki, 1994). In accordance with this view, previous studies confirmed the moderation role of experience in the relationship between subjective norms and intention behaviour (Morris and Venkatesh, 2000; Taylor and Todd, 1995; Venkatesh and Davis, 2000; Karahanna et al., 1999).

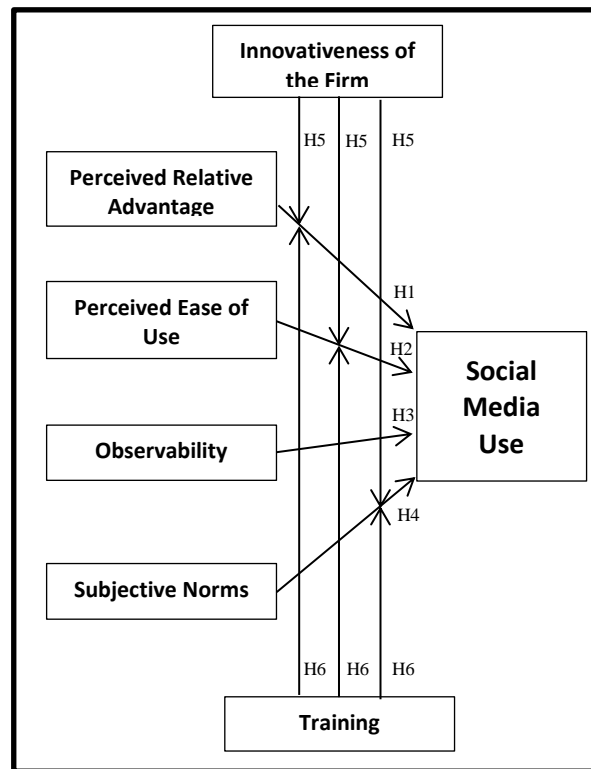
Based on the previous discussion, the researcher constructed the following hypothesis:

*H6: Training enhances the relationship between social media's innovation characteristics (perceived ease of use, perceived relative advantage, and subjective norms) and its use for export purposes.*

We noted that the expected moderating effect of both (training and innovativeness of the firm) between (PEOU, PRA and SN) and the adoption/use of an innovation had been scarcely tested before in some contexts other than social media context. Very few researchers studied those factors theoretically as obstacles/enhancers (see Paroutis and Al Saleh, 2009; Buehrer et al., 2005; Koh and Espinola, 2010) with the exception of Siamagka et al. (2015) who empirically examined the moderating effect of the firm's innovativeness on the relationships between both PU and PEOU on the adoption of social media.

Based on the previous discussions, the following framework could be presented.

**Figure 2.14: Moderating Effects of Innovativeness of the Firm and Training on the Use of Social Media by SMEs B2B Firms**



### 2.3.3 Implications of Using Social Media for Export Purposes

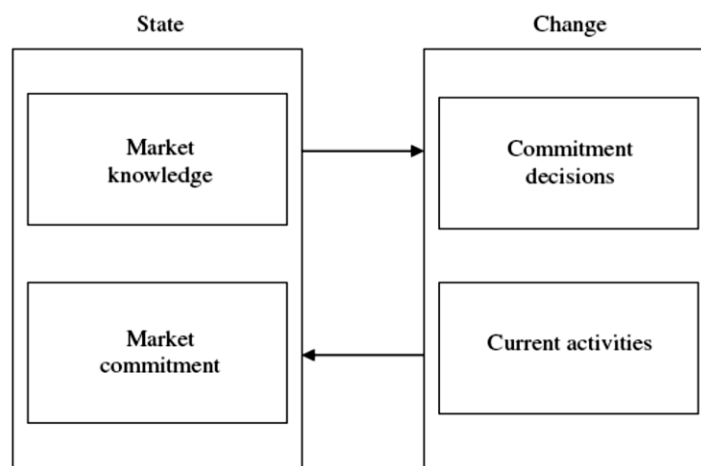
This study aims to explore the ways in which the use of social media can affect the firms' internationalisation processes. Social media has urged a new trend in marketing communication which focuses mainly on developing customer relationships by engaging with them in interactive discussions about brands more than attempting to drive sales directly (Hennig-Thurau, et al., 2010; Koh, 2009). As asserted by Pezderka et al. (2012, p.9) that “those companies that develop superior capabilities in terms of communication with customers, relationship-building, reaching potential customers, bypassing costly physical presence in foreign markets, market research, being a front-runner in employing advanced export management technology, and cost reduction through Internet deployment, will experience enhanced export performance”. Hence, perhaps the use of social media can affect the sales process but without having a direct relationship with sales performance per se (Rodriguez et al., 2012). Hence, in the following sections, the researcher presents an overview of these effects.

### 2.3.3.1 The Indirect Effects of the Social Media Use on Export Performance through the Number and Quality of International Business Contacts

The original Uppsala model, derived from research by Cyert and March (1963), Penrose (1966) and Aharoni (1966), includes two aspects. The first of these is the state aspect which refers to certain degrees of market knowledge and market commitment which the firm acquires at different levels of the internationalisation process. The second aspect refers to the changing process of current business activities and current commitment decisions to reinforcing the firm's positions in the overseas market. Through its experiences, a firm's knowledge of a market grows and that knowledge affects the decisions concerning the level of commitment and activities which follow. This leads to the next level of commitment and activities. Among the existing models of internationalisation, the Uppsala model is regarded as the most widespread and effective (Eden, 2009).

As shown in Figure 2.15 below, the original Uppsala model assumes that the internationalisation process will continue until the performance and prospects cease to be favourable. It assumes, also, that time is required to learn and build commitment. For this reason, moves into potentially rewarding but hazardous modes and moves into markets, which involve a greater physical distance, are made incrementally.

**Figure 2.15: The Basic Mechanism of Internationalisation: State and Change Aspects**



**Source: Johanson and Vahlne (1977, p.26)**

Although many scholars tested the Uppsala model and used it extensively, others found arguments against using it and concluded that the model did not reflect adequately the underlying drivers of internationalisation (e.g. Oviatt and McDougall, 1997; Havnes and Andersen, 2001). It is of great importance that it is possible for firms not to follow the step-by-step character of the model and to achieve internationalisation more rapidly by skipping some of the stages.

Some studies, which applied the internationalisation process to SMEs, criticised the Uppsala model because those firms might acquire the opportunity to reach a target market through instantaneous internationalisation; this phenomena is called “*born-globals*”. However, Johanson and Vahlne (2009) answered this criticism by adding the network perspective between firms to their initial model; this helped in recognizing a wide range of knowledge. Additionally, Forsgren (2002) argued that, if the perceived risk of firms not investing was higher than actually investing, these firms might invest intentionally on an international basis regardless of market knowledge. Furthermore, Johanson and Vahlne (2009) argued that there were several factors, which affected the causal relationship between experiential learning and commitment, that were absent in the original model. These were such as: managerial actions (Axinn and Matthyssen, 2002); and strategic intention (Johanson and Vahlne, 2009). This reflects the criticism of the original model being deterministic.

According to several studies, there was clear evidence of the importance of networks in the internationalisation of firms. This demonstrated the need to develop further the original model in order to enhance the role of such networks (e.g. Coviello and Munro, 1997; Welch and Welch, 1996; Elango and Pattnaik, 2007).

Similar to the 1977 version, as shown in Figure 2.16 below, the 2009 business network model comprised two sets of variables: state variables (as shown on the left side); and change variables (as shown on the right side). These variables influence each other since the current state has an effect on change and vice versa. Few changes were made to this new model.

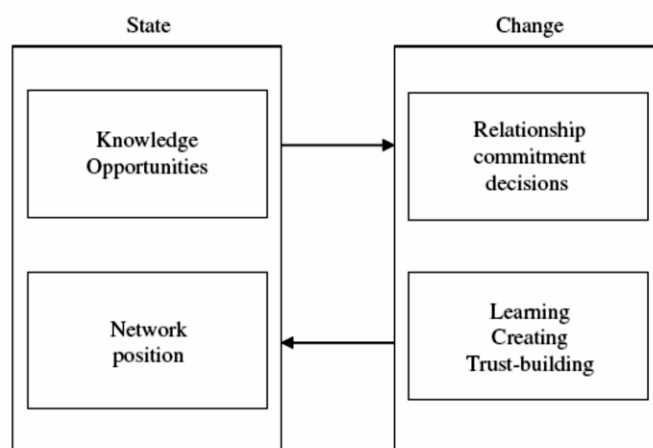
As shown in the upper left-hand box of Figure 2.16, the changes included the addition of “recognition of opportunities” to the “knowledge” concept. Opportunities represent a subset of knowledge and, by adding this variable; the

authors intended to signal their consideration of opportunities as the key knowledge element which drove the process. In their institutional settings, the needs, capabilities, strategies, and networks, of directly or indirectly related firms comprise other important elements of knowledge. The second state variable is called the “network position.” Originally, this was labelled “market commitment”; however, nowadays, it is accepted that the internationalisation process is carried out within a network. The relationship’s characteristics include particular levels of knowledge, trust, and commitment and it is recognised that these may not be distributed evenly among those parties concerned with the process. Therefore, these relationships may vary in their promotion of successful internationalisation.

In terms of change variables, the previous caption of current activities was changed to learning, creating, and trust-building in order to allow the results of ongoing activities to be better understood. Partners’ perceptions of the previous existence of knowledge, trust, and commitment along with the attractiveness of opportunities affect the speed, intensity and efficiency of the process of learning, creating knowledge, and trust-building.

Relationship commitment decisions is the other change variable derived from the original model. The term ‘relationship’ is included to demonstrate how commitment is associated with relationships or relationship networks. The implication of applying this variable is that the focal firm may raise or lower the degree of commitment to one or several of its relationships within a network.

**Figure 2.16: The Business Network Internationalisation Process Model**



**Source: Johanson and Vahlne (2009, p.1424)**



In the social exchange process, weak links and unilateral dependence can be transformed into strong relationships and bilateral interdependence. Consequently, these relationships increase joint productivity gradually (Zajac and Olsen, 1993). In the marketplace, it was shown that forging such relational links was vital to a firm's performance (Coviello and Munro, 1997). Coviello et al. (1998) found that software managers perceived that competitive advantage emanated from the variety of their formal and informal contacts in key target markets. They found, also, that an association with unsuitable partners put a firm at risk. Therefore, in order to internationalise successfully, firms needed to be insiders in relevant business networks. Being on the inside allows firms to learn, to build trust, and to commit to their international business partners. These are the three core processes which make up the overall internationalisation process.

In the light of a comparison between marketplace and market space in terms of interactions, it was suggested that participation, within a communication setting such as those provided by market space, could extend the range and diversity of both weak and strong links (Lee et al., 2011). These new types of communication can facilitate and develop both types of links and can supply the firm with more diverse information than that offered by close links. This argument echoes the early, Web 1.0- grounded work of Brock who argued that the Internet's market space resulted in firms being freed from the constraints of their local sensitive marketplace-based networks (Brock, 2000). It is this network perspective which provides the theoretical rationale for considering social media enabled networks to be highly relevant.

As a result of its significant potential value for firms, the Internet has been cited as among the key marketing platforms in the global marketplace (Rogers and Sheldon, 2002). Communications with current/potential overseas customers, suppliers and partners abroad benefit significantly through use of the Internet (Hamill, 1997). Therefore, the Internet is "completely reshaping the way we communicate with others, conduct our business, target customers or distribute products and services" (Schlegelmilch and Sinkovics, 1998, p.169), since it offers a powerful and quick way to reach both customers and suppliers worldwide regardless of the physical distance to the country (Lituchy and Rail, 2000; Roccapriore, 2000).

Consequently, social media is likely to be a new sphere of influence and is likely to provide networking opportunities for firms since it enables a firm to extend its searching ability and allows contacts of interest to access it through the use of various platforms such as blogs, Twitter and so forth (Trusov et al., 2009). Searcy (2012) argued that social media was a valuable tool to gather information about B2B firms which would help to build a profile on prospective buyers. Generating potential leads can be identified by the sales team through the social networks used by customers on the understanding that these customers communicate with others (Groza et al., 2012). Social media, specifically Facebook and LinkedIn, could be a valuable tool for B2B firms in enabling them to identify potential partners (Howe, 2006; Piller et al., 2012). In accordance with this view, Thew (2008) argued that the main advantage of SNS was the possibility of obtaining a large network of contacts. In addition, Baird and Parasnis (2011) mentioned that firms ought to use these social media platforms as communication channels to connect and communicate with customers. Preevan et al. (2015) asserted that organisations' use of social media enhanced customer relations. Michaelidou et al. (2011) stated that B2B companies could use social media to both attract new customers and to cultivate existing relationships. In accordance with that view, Rodriguez et al. (2016) concluded that social media used positively affected new account acquisition. Gillin and Schwartzman (2011) argued that most of social media profiles were public and, therefore, it could be a useful way to obtain direct contacts with the decision makers. Since social media has the ability to transfer content to a wide range of people (Tsimonis and Dimitriadis, 2014), this helps firms to reach out to many contacts who could not be reached before (Dong-Hun, 2010).

According to Mershon (2012) over 56% of interviewed B2B marketers acquired new business partnerships through using social media. In the same vein, more than half of the 3000 surveyed marketers reported that new partnerships were gained, 95% of them generated exposure for their firms and 64% see lead generation benefit from social media platforms (Stelzner, 2013). Compared to medium firms (36%) and large firms (28%), a large proportion of small firms (44%) worldwide have acquired customers through successful professional social networking like LinkedIn or Twitter (Regus, 2010).

It is argued that LinkedIn is a good way to communicate with partners, other retailers or simply people who might have knowledge in a certain field which could be of interest to the firm (Drobnjak, 2011). Miller (2012) emphasized the importance of using SNS, such as LinkedIn, for business purposes such as generating sales leads; this makes them an essential part of the B2B digital marketing plan. Schaffer (2011) emphasized new client acquisition as one of the benefits of LinkedIn. Safko (2011) demonstrated that business social networking tools such as LinkedIn, Facebook, and Twitter could be used to identify potential leads.

However, different social media platforms offer different tools for generating leads within the B2B sector. Facebook is a channel for spreading awareness about the firm since it functions like the firm's second website. In addition, the company Facebook page increases the firm's visibility in search engines (Pergolino and Miller, 2010). Twitter could be considered to be a lead generation tool when a user chooses to follow another user (Pergolino and Miller, 2010). Therefore, every person, who either likes the firm's Facebook page or follows the Twitter profile, is a potential customer (Arca, 2012). Blogs could be viewed as generating the most leads for B2B companies (Miller, 2012). Finally, video sharing services are significant in generating leads to B2B marketing as well as sharing product showcases and customers' recommendations (Pergolino and Miller, 2010).

Johanson and Vahlne (1990) argued the importance of sustainable and efficient external communication with respect to the success of the organisation's internationalisation efforts. Schlegelmilch and Sinkovics (1998), Riddle (1999), and Dou et al. (2002) stated that the use of the Internet facilitated broad networking with current and potential overseas customers, strategic partners, and distributors. Thus, the Internet gave firms the ability to sustain relationships over time by facilitating dynamic, two-way communication (Overby and Min, 2001). This appears to be a critical aspect in the success of the internationalisation process by allowing exporting firms to conduct their business in an effective and efficient way (O'Keefe et al., 1998; Selby, 2000). Moreover, other studies added weight to this observation by suggesting that the interactivity, afforded by the Internet, was an important influence on the accomplishments of firms to export their goods and services (Bennett, 1997, 1998; O'Keefe et al., 1998; Musteen et al., 2010). In accordance with this view,

Loane and Bell (2006) and Wu et al. (2003) stated that for an internationalisation process to be successful, business networks and social interactions played important roles. In the same vein, Filatotchev et al. (2009) found that having a global network was a crucial element in export performance.

From the previous discussion, the researcher proposes that the use of social media affects the scope of firms' contacts and that scope of contacts and networking affects ultimately their sales abroad. Hence, the effect of using social media on export performance can be achieved through the increasing number of sales leads (the number of international business contacts). As a result of the previous discussion, the researcher constructed the following hypothesis:

*H7: The use of social media influences export performance indirectly through the number of international business contacts.*

Prior to the establishment of social media marketing, a common barometer of success was the extent to which information could be disseminated. Fors (2008) suggested that, nowadays, the depth of an organisation's network was, also, relevant. Since the quality of the selection of customers to be targeted is important (Katsioloudes et al., 2007), firms can use social media to qualify leads at an early stage of the sales process by studying the profile of the target customer, provided that those customers have developed their full profiles (Shih, 2009). Giamanco and Gregoire (2012) argued that sales could benefit from using social media in aspects such as prospecting, qualifying leads and managing relationships with customers. In accordance with that view, Rodriguez et al. (2016) found that social media use improves qualifications of opportunities. A qualified perspective is one having the need and being receptive to being contacted by a sales organisation (Jolson and Wotruba, 1992); this is especially so in respect of the most attractive potential international customers who fit the firm's needs (Hamill et al., 2011; Rodriguez et al., 2012). Social media platforms, such as Facebook and LinkedIn, provide detailed information on a prospective customer (Rodriguez et al., 2012). In the same vein, Hamill et al. (2011) stated that, within the LinkedIn site, a firm could use the customer mapping exercise to identify the principal customer groups of interest; to

build a customer database; and, then, sift through this network to identify the top quality contacts.

By using social media to qualify prospective customers, sales firms can focus on ideal clients who suit their businesses. This can result in minimizing the time wasted on less ideal customers (Rodriguez et al., 2012). Carroll (2015) mentioned that focusing on higher-quality leads would help B2B marketers to better perform their sales. Additionally (Marketo, 2010) asserted that the marketers could benefit from scoring leads in order to drive marketing and sales productivity and to increase the revenue more quickly. On this basis, the researcher developed the following hypothesis

*H8: The use of social media influences export performance indirectly through the quality of international business contacts.*

#### **2.3.3.2 The Indirect Effect of Social Media Use on Export Performance through Brand Awareness**

The customer's ability to recognise a given brand under specific circumstances is referred to as brand awareness; this can be demonstrated in one of two ways: brand recall or brand recognition. The former represents the customer's ability to remember a specific brand when prompted with a category as a cue, while the latter describes the ability to recognize the brand when the customer is given a brand as a prompt (Dew and Kwon, 2009).

Previous research described the effects of marketing communication on end results. For example, Simon and Sullivan (1993) conducted a study with the aim of creating a model to assess brand equity and they reported that marketing communication was a key driver of brand awareness. Other research suggested that marketing communication increased perceived brand awareness (Yoo et al., 2000). It is apparent, also, that online word of mouth comments form part of a record that represents customer communication about products, services and so forth (Godes and Mayzlin, 2009; Kozinets et al., 2010). Dellarocas (2003) argued that increasing brand awareness could be achieved by the communication between customers, a powerful method of transmitting information.

Of particular relevance when customers are not familiar with each other, the use of social media platforms permits and encourages communication among peers (Duan et al., 2008). Also, it may be considered to be a means for potential customers to increase their knowledge of and form an opinion about a particular brand. Without the initial establishment of brand awareness, neither brand attitude nor purchase decision can occur (Macdonald and Sharp, 2003). Some researchers (Stileman, 2009; Mangold and Foulds, 2009) indicated that the use of social media facilitated customers in sharing knowledge of the product and service brands with their peers, a stance supported further by Bruhn et al. (2014) who argued that positive brand awareness and customer loyalty could be fostered by high quality interaction within the communities of B2B brands. However, from the customer's point of view, it is beneficial to use new media as a convenient way of making firms aware of defects in their products. This helps the firm to achieve customer service, and, in particular, benefits the company and other customers through problems being solved more rapidly (Shankar et al., 2003; Zeithaml et al., 2001).

From the firm's perspective, social media marketing give it better communication grounds with the consumers to build brand loyalty beyond traditional methods (Jackson, 2011; Akhtar, 2011). Nisar and Whitehead (2016) provided evidence that numerous social network users followed brand fan pages via social media which affected their loyalty. Firms can promote products and services; provide instant support; and/or create an online community of brand enthusiasts through all forms of social media such as social networking sites, content communities, virtual worlds, blogs, microblogging sites, online gaming sites, social bookmarking, news sites, forums and more (Zarella, 2010; Kaplan and Haenlein, 2009; Weinberg, 2009). Peer to Peer discussion allows organisations to raise brand awareness in a cost effective way through recognition and recall along with brand loyalty (Gunelius, 2011). By monitoring customer-to-customer interactions, firms can become aware, also, of consumer dissatisfaction and unfavourable events. Consequently, they are able to take appropriate evasive action (Shankar et al., 2003; Zeithaml et al., 2001).

However, previous research, concerning the relationship between marketing communications and brand awareness, focused only on traditional marketing communication instruments (Aaker, 1991; Keller and Lehmann, 2003; Yoo et al.,

2000). Consequently, when firms use new media to inform customers of new products or services, this can be understood to be traditional online marketing (Chatterjee et al., 2003; Stewart et al., 2001). However, Weber (2009) argued that a strong brand ought to be based on the dialogue between a firm and its customers and, in this regard, social media allowed companies to enter into these kinds of dialogues. As such, social media is considered to be a way to expose customers to the brand and the more customers engage with it the higher the awareness of the brand (Hutter and Hautz, 2013; Michaelidou et al., 2011).

A key aspect of brand awareness is to target many audiences across many different types of social media platforms (Weinberg, 2009). As users spend their time on various social media sites, firms should diffuse their presence across many kinds of social media while, at the same time, remaining relevant to each community (Hutter and Hautz, 2013). A creative method of increasing brand awareness is to identify the individuals who influence online communities relevant to a firm. Through careful and deliberate decisions to convert these individuals into brand ambassadors, i.e. individuals who are very enthusiastic about a firm's products or services, the firm can access indirectly potential audiences in relevant online communities (Safko and Brake, 2009). Immediate Future's research (2008) showed that active participation on social media sites had a positive influence on a firm's brand awareness.

Since the markets are characterised by imperfect and asymmetrical information, thus customers remain uncertain about product quality and, therefore, they perceive their decisions as risky because the consequences of a purchase cannot be anticipated entirely (Erdem et al., 2006). Accordingly, the rationale is that brand awareness drives market performance through two mechanisms: it reduces buyer information costs; and buyer-perceived risk (Erdem and Swait, 1998). Little has been published to date on the relationship between brand awareness and market results and, of the literature which does exist, most is concerned with the service industry and draws heavily on the perceptual data from questionnaires or experimental results (Kim and Kim, 2005; Kim et al., 2003; Kim and Kum, 2004). These studies indicated a positive relationship between the two factors. This was exemplified by the observation that, within the hospitality industry, brand awareness was associated

positively with sales (Kim et al., 2003). Other researchers found that brand awareness was related to positive market outcomes in terms of profitability, sales and product-market outcomes (Keller and Lehmann, 2003; Baldauf et al., 2003; Huang and Sarigollu, 2012). Furthermore, fluctuations in sales can be attributed to brand awareness (Srinivasan et al. (2010).

From the previous discussion, the researcher proposes that the use of social media affects the brand awareness and this brand awareness affects the export performance. Hence, the effect of using social media on export performance can occur through increasing brand awareness.

Consequently, the researcher constructed the following hypothesis:

*H9: The use of social media influences export performance indirectly through brand awareness.*

### **2.3.3.3 The Indirect Effect of the Social Media Use on Export Performance through Understanding Customers' Views and Preferences and Understanding Competition in Different Markets**

Johanson and Vahlne (1977; 1990) suggested that information was a key component of the export development process which contributed to an organisation's overall development. Denis and Depelteau's (1985) Canadian study of export behaviour illustrated this point by reporting the importance of information behaviour in the organisational process to expand overseas. As reported by their study on US companies, the same authors found that the export behaviour of smaller firms followed a learning curve with competence, knowledge and confidence increments accumulated marginally in successive phases. However, Benito et al. (1993) argued about the different aspects of the contribution which information made to the firms' export processes in terms of their various sizes, various experience levels and their use of different technologies at different levels of internationalisation. The investigation of problems or obstacles to exporting, where insufficient information is a key element along with expense and difficulty in obtaining the appropriate



information, is one example of the function of information on the export process (Barret and Wilkinson, 1986).

Lack of information is often an important issue and concern for firms either beginning to export for the first time or taking their first steps in exporting. This is because it limits the firm's ability to implement an attempt to export and increases, also, the perception of risk and uncertainty which culminate in less readiness to commit (Benito et al., 1993). If a firm tries to enter an overseas market where it has no relevant network position, it will suffer from the drawback of being an outsider (Johanson and Vahlne, 2009). In the initial stages, the firm will look for new knowledge about the new customers' requirements, the size of the potential market, methods of market entry, the nature of government institutions, market rivals and so forth (Yip et al., 2000; Johanson and Vahlne, 2006). Such information is gained from a study of the target market prior to proceeding with the investment decisions and is termed objective knowledge. Examples of this type of knowledge are easily-accessed secondary sources including magazine and newspaper articles, reports, and web-based information, and public and private databases (Denis and Depelteau, 1985).

However, experiential knowledge, which exists in two forms (general and market-specific), is another type of information distinct from objective knowledge (Johanson and Vahlne, 1977). Marketing strategies, rules and regulations, related to sales, payments, employees, and customers or suppliers characteristic (independent of location), can be thought of as general knowledge which can be acquired through overseas business operations and can be transferred from one country to another (Johanson and Vahlne, 1990). Knowledge on a given country and its characteristics contribute to country-specific market knowledge, a key resource to the internationalisation strategy and is somewhat more difficult to attain given that such knowledge is typically complex and tacit (Penrose, 1959; Johanson and Vahlne, 1977). Many studies stressed the importance of obtaining experiential knowledge of foreign markets, customers, governments, laws and cultures as foundation stones for successful internationalisation (Autio et al., 2000; Zahra, et al., 2000). This type of knowledge, coming from presence in the local market, is crucial to firms' international success and is particularly so in their initial stages (McDougall et al., 1994).

Communication through firm networks of interconnected relationships can be, also, a source of new knowledge; this illustrates the point that knowledge can be derived from areas other than the activities of the firm itself (Clifton et al., 2010). Firm partnerships and their respective connections can contribute, also, to an atmosphere of the knowledge creating process which extends outside of the organisation's scope (Khamseh and Jolly, 2008; Emden et al., 2005). Hence, a network of business relationships offers a firm an extended knowledge base (Hägg and Johanson, 1982; Kogut, 2000). This process will continue until the firm perceives that there is an adequate amount and quality of information during the process from which weak links and independence can be changed into strong ties and bilateral interdependence and, in due course, increase joint productivity (Halle et al., 1991; Zajac and Olsen, 1993). As firms go through various stages of internationalisation, the perceived significance of foreign market research increases; overseas market analysis activity expands and becomes more formalised; and information requirements and the diversity of sources accessed increase (Cavusgil, 1984).

The Internet is a powerful, global network tool, with a relatively low cost, which enables small firms to extend their reach worldwide. SMEs can gain, also, more and easier access to suppliers, governmental agencies, networking agencies and their competitors; this makes them more competitive with large firms (Lymer et al., 1997; Favaretto and Vescovi, 2002; Voerman et al., 2002). As Hamill and Gregory (1997) mentioned, the Internet allows small players to compete on an equal footing with the multinational firms and, consequently, expand their market share. Consequently, the Internet enables small firms to have similar appearances to corporate giants and to operate internationally in ways that previously were impossible (Quelch and Klein, 1996; Dandridge and Levenburg, 1998, 2000).

It is logical that new media (social media) is unable to offer firms market-based experiential knowledge; however, firms now have the opportunity to gather location-specific knowledge through this new media. Social media, as a new type of media, can assist in leverage crowd sourced knowledge and experience, and can offer an online virtual community for exporters which give firms unprecedented opportunities to gain insight into different markets through unfiltered and unprompted information

(Hamill et al., 2011; Soar, 2012). Mershon (2012) noted that, by using social media, 69% of interviewed B2B marketers were more able to gather marketplace information. Additionally, Parveen et al. (2015) concluded that social media had a greater impact on improvements in information accessibility. As such, this new media (social media) can offer an alternative learning platform which adds to the international knowledge base by providing through adequate, reliable and relevant information a new source of information in the process of internationalisation.

This information can be used specifically for the following:

**- Understanding Customers' Views and Preferences through Social Media**

Social media can help users to establish their online identities; create a presence; develop relationships; join groups; engage in conversations; and share content (Kietzmann et al., 2011). These online communities have been considered to bring several benefits to organisational learning. Examples of these benefits are enabling the sharing of tacit knowledge and facilitating the acquisition of knowledge (Levy, 2009; Schneckenberg, 2009; Ribiere and Tuggle, 2010).

In order to achieve business success, social media can be used not only to deliver information to customers but, also, to gather information about clients and potential markets (Kazienko et al., 2013). A considerable body of research exists on the high quality of useful information that can be obtained through monitoring social media platforms for marketing purposes, i.e. considering the customers' opinions and viewpoints in relation to the firm and its products, their needs and preferences, market potential for new products and current trends (Agnihotri et al., 2016; Idota et al., 2016; Ferneley et al., 2009a, 2009b; Pitta and Fowler, 2005; Pang and Lee, 2008; O'Flaherty, 2008; Scoble and Israel, 2006; Kozinets, 2002; Li and Shiu, 2012; Constantinides et al., 2008; McKinsey, 2007). Singh et al. (2008) argued that, given individuals tended to speak freely online, this was an important advantage of using social media, since it allowed the customer's unmodified opinions to be obtained (Hu, 2011). In a B2B context, social media can enable the firm, therefore, to better understand the preferences and needs of its customer base (Jussila et al., 2014).

The customers' opinions are represented in sources such as social networks, communities, forums and bulletin, and blogs (Pitta and Fowler, 2005; Li and Shiu,

2012). Consequently, these opinions are considered to be genuine by other potential customers who encounter this information as reviews or comments in the various online sources (Elliott, 2002; Bates et al., 2006). The performance of a product can depend, therefore, upon customer experiences shared by its users; this is a widespread phenomenon across social media platforms. Ultimately, when compared to standard market research strategies, this customer information can prove to be a valuable and cost-effective resource when gathered correctly and evaluated by the organisation (Burke et al., 2001; Constantinides et al., 2008).

Many corporations try not only to tap into their customers' voices in an active way but they offer their customers, also, the possibility of expressing their opinions and ideas about the firm's products or services (Hudson et al., 2012; Merrill et al., 2011). One such firm is Nokia which has invited its customers to join its online "Developer Community" by providing them with discussion boards, wiki-based applications and blogs. Also, there is the case of the SAP community network where customers talk openly about different issues.

Sentiment analysis is one of the challenging tools used to analyse the viral sharing of customers 'experiences in the social media marketing context (Pang and Lee, 2008; Branthwaite and Patterson, 2011). A topic, of considerable interest among marketers in social media, can be complex to evaluate since individuals do not communicate always online in a standard way and often resort to colloquialisms, sarcasm, and unclear phrasing which are not easy to interpret automatically (Branthwaite and Patterson, 2011). Research has shown that the analysis of multilingual text is possible. However, (Bautin et al., 2008), and Hennig et al. (2008) argued, also, about how social media marketing applications, like Radian6 and Meltwater Buzz, had progressed significantly since 2004, although challenges remained in extracting the overarching meaning of the information once collected. This sentiment analysis can be conducted through three main stages: 1) Data collection by defining dictionary and polarity of positive and negative adjectives; 2) data processing through extraction of useful data from social networking platforms, removal of ambiguous data such as sarcasm and interrogative comments, and extraction of sentiments from comments; and 3) decision making by designing a

natural language processing model to draw inference from comments on different social networking platforms (Bhardwaj et al., 2014).

Organisations are required to evaluate their offerings continuously in order to meet the demands of their markets. This is a process in which customers can be involved advantageously since they bring a new perspective to the process by providing their highly valuable inputs (Kristensson et al., 2004; Seth and Sharma 2005). As concluded by Liu and Kop (2016), by using social media, firms are able to collect in an efficient and effective way information and knowledge about customer's expectations and experiences. The application of this type of customer-derived knowledge allows firms to develop tailored products and to develop new innovations (Kristensson et al., 2004; Kozinets et al., 2008). In addition to the knowledge needed to produce these products and services, a firm needs to understand, also, to whom, at what price, where, when and how the products and services should be sold in order to get the best possible profit (Vuori and Väisänen, 2009).

A number of researchers (Hart et al., 1994; Diamantopoulos and Souchon, 1999; Craig and Douglas, 2001) argued that relevant, topical information was necessary for firms wishing to expand their export capacities and to compete proactively for their market positions. Riddle (1999) added that one of the key tools, available to firms seeking to expand into international markets, was the Internet's capacity to accumulate business intelligence. A study of Singapore SMEs revealed a positive relationship between firm performance and both the acquisition and utilization of market knowledge into marketing mix decisions (Keh, 2007). Also, similar Malaysian research found a link between performance and competitive intelligence of the customers' needs whereby firms, actively seeking such intelligence, tended to perform better (Yap and Zabid, 2011). Furthermore, an Indian study showed a similar outcome in terms of financial performance related to competitive intelligence activities (Adidam et al., 2012).

From the previous discussion, the researcher proposes that the use of social media affects the understanding of customers' view and preferences in different markets and such understanding affects, also, export performance. Hence, the effects of using

social media on export performance can occur through understanding customers' views and preferences in different markets.

Based on the previous discussion, the researcher constructed the following hypothesis:

*H10: The use of social media influences export performance indirectly through the understanding of customers' views and preferences.*

#### **- Understanding Competition in Different Markets via Social Media**

Competitive intelligence is defined to be “the art of defining, gathering and analysing intelligence about competitor's products, promotions, sales, customers, finances and partners etc. from external sources” (Dey et al., 2011, p.1). This competitive intelligence is considered to be an information system used to analyse data associated with competitors' activities gained from the public and private sources (Haags, 2006).

He et al. (2013) argued that a wide body of text-based information, from which useful knowledge could be mined, resulted from the widespread adoption of social media platforms and this could allow a firm to gain a competitive advantage. This reasoning stems from the observation that competitors divulge valuable information frequently on social media and a considerable strategic competitive advantage can be gained through closer examination of these details (Rice, 2010, Arca, 2012). New knowledge can be identified when marketers consider the wealth of social media data available such as understanding what their competitors' habits and how the industry is changing, in order to improve their understanding and to achieve a competitive advantage over their competitors (Dey et al., 2011; Governatori and Iannella, 2011). In a survey of 3000 marketers, most of them were using social media to gain market intelligence (Stelzner, 2013). Specifically, by observing competitors' digital interactions with customers and what was being said about their competitors, accessing customer reactions to competitors and benchmarking competitive products (Agnihotri et al., 2012; Rautio, 2013), firms could acquire insights into the competitors' branding, company initiatives, strengths, weaknesses and perceived values (Brandwatch, 2012; Habermann, 2005; Singh et al., 2008, Rapp et al., 2013);

and could understand and track trends in the firm's industry more efficiently than by using traditional market research (Habermann, 2005; Singh et al., 2008).

Accordingly, competitive advantage can be achieved in the marketplace when decision makers use these outcomes in their strategic planning (Bao et al., 2008; Teo and Choo, 2001; West, 2001). Lau et al. (2005) argued that, through the use of competitive intelligence, firms could identify their strengths and weaknesses; become more efficient; and increase their customers' satisfaction. Furthermore, LaValle et al. (2010) illustrated that successful firms could gain an understanding of the current market situation and future trends by evaluating all data to hand whether sourced from consumer feedback, like reviews of services and products, or from competitors liking information of their products.

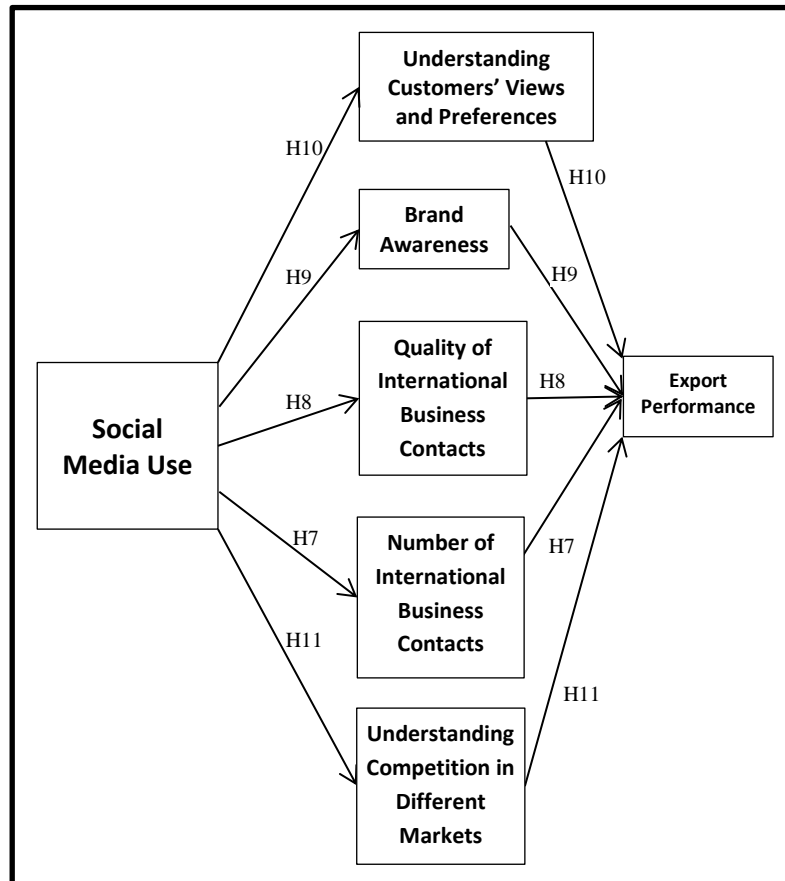
A number of scholars illustrated the significance of acquiring foreign market knowledge as a basis for effective internationalisation (Autio et al., 2000; Zahra et al., 2000). Nowadays, firms have the opportunity to gather location-specific knowledge via the marketplace which, traditionally, they might have acquired only through direct interaction with the foreign market (Petersen et al., 2002). Soh, (2003) found that firms, which used network alliances to obtain more information about other firms, reaped the benefits of gaining information advantage which led to improvement in the performance of new products. In this respect, Akyol and Akehurst (2003) found that firms, which acquired export market information, performed better in their export markets. Silva (2010) asserted that a firm's performance was affected by the generation, analysis and dissemination of information about competitors. From the previous discussion, we propose that the use of social media affects the understanding of competition in different markets and this understanding of competition affects export performance. Hence, the effects of using social media on export performance can occur through understanding competition in different markets.

Based on the previous discussion, the researcher constructed the following hypothesis:

*H11: The use of social media influences export performance indirectly through the understanding of competition in different markets.*

According to the previous discussions, the following framework could be presented.

**Figure 2.17: The Indirect Effects of the Social Media Use on Export Performance through the Number of International Business Contacts, Quality of International Business Contacts, Brand Awareness, Understanding Customers' views and Preferences, and Understanding Competition in Different Markets**



**2.3.3.4 The Moderating Role of Customer Engagement on the Relationship between the Use of Social Media and (Sales Leads, Brand Awareness, Understanding Customers' views and Preferences through Social Media, Understanding Competition in Different Markets via Social Media)**

The exploration of available marketing literature revealed that the notion of customer engagement emerged recently in this field. Building on different definitions from other academic disciplines, marketing scholars proposed several different



views. However, due to overuse and varied definitions, senior marketers started to consider it to be an elusive concept and that there is a need to link cause and effect to measure it effectively and efficiently (Mitchell, 2012).

Some studies defined engagement in terms of a psychological state involving vigour (energy and mental resilience), dedication (sense of significance, enthusiasm, inspiration, pride, and challenge) and absorption and attention (concentration and engrossment) (Schaufeli et al., 2002; Rothbard, 2001). Patterson et al. (2006) defined customer engagement as “the level of a customer's physical, cognitive and emotional presence in their relationship with a service organisation.” Physical refers to the level of energy and mental resilience; Cognitive refers to being fully concentrated and deeply engrossed; and Emotional refers to a sense of significance, enthusiasm, inspiration, pride, and challenge. Also, customer engagement can be defined as “the intensity of an individual's participation and connection with the organisation's offerings and activities initiated by either the customer or the organisation” (Vivek, 2012, p.4). However, the concept can be regarded, also, as a sequential psychological process with cognitive and emotional features that a customer must encounter prior to developing brand loyalty (Bowden, 2009). The procedure, within which loyalty is fostered and sustained for both current and potential customers, is reflected in this process.

Other researchers, inspired by the work of Van Doorn et al. (2010), addressed the subject of customer engagement as a behavioural manifestation of a focal object, such as a brand or a firm, arising from motivation drivers other than purchase. Therefore, by considering engagement with references to a given customer activity, the notion of customer engagement behaviour addresses behavioural features of the customer-firm relationship (Pham and Avnet, 2009; Verhoef et al., 2010).

By reviewing the existing literature on customer engagement, a group of five key propositions was proposed to form the foundation of a broad definition (Brodie et al., 2011). The first of these propositions is the fundamental theme which acknowledges the key role of establishing specific interactive experiences between customers and other actors in the marketing and/or brand network. The next requires a specific set of context-dependent conditions to be in place and, thus, creates various levels of

customer engagement. The third proposition describes how engagement takes place as part of a wider, dynamic and iterative engagement process. The fourth proposition considers engagement as a multi-faceted concept which incorporates cognitive, affective and behavioural elements.

The author of this conceptualization proposed that a definition ought to be applicable to multiple contexts unlike that of most existing conceptualizations in the literature (Brodie et al., 2011). This engagement concept is capable of being applied to any given context of customer engagement given the generic expression of the cognitive, emotional and behavioural elements which it consists of. Hence, the researcher applies this approach to this study. Critics of this specific conceptualization, including Malthouse and Calder (2011), argued that it was overly general and, therefore, susceptible to giving rise to behavioural confusion. Furthermore, it was claimed that the interactive and co-creative nature of experiences should not imply that engagement requires a high level of overt activity. Active behaviours, such as blogging, can lead to engagement as can more basic means of receiving communication as long as these experiences are immersive (Malthouse and Calder, 2011).

The Internet is an open, cost effective, and widespread network which can diminish barriers that arise from physical distance (Sawhney et al., 2005). Frequently, firms must decide between the richness and the reach of their messages in the real world. However, the Internet enables a much greater customer base to be reached without sacrificing the richness of communication (Vemuri and Siddiqi, 2009; Culnan et al., 2010).

As mentioned before, social media enables individuals to involve to a greater degree in new types of forums for interaction processes developed in the past few years in line with the new approaches to this new technology. Using the wide variety of tools that promote user interactivity experiences (e.g. discussion forums, social networks, chat rooms, email, blogs and bulletin boards), firms can develop their social capital and construct more meaningful strategic partnerships through online communications (Ellonen et al., 2010). Other researchers supported this view by suggesting that customers were engaged increasingly by corporate social media

(Baek et al., 2012; Pagani and Mirabello, 2012). In the same vein, there is a growing recognition that social media applications are useful for engaging customers (Aquino, 2012; Cheung et al., 2011). The implementation of Web 2.0, developed to allow information retrieval from its user base in order to develop content and value, is of importance in the sphere of customer engagement (Hollebeek, 2011). This is because users are more inclined to participate in an online community when they are able to contribute to it in some way. From the exchanges that they develop with other members, individuals develop a sense of ownership of a specific community (Kelley et al., 1990; Wind and Rangaswamy, 2001). The resultant outcome is that customer engagement with a given brand flourishes (Brodie et al., 2013).

However, merely establishing a presence on a popular platform, such as Twitter or Facebook, is no assurance that a firm will attract customers to its page. This is because customers use social media on a voluntary basis; and, frequently, communities are formed informally over time as individuals connect to others with similar interests and aspirations, and co-operation may be made with little or no formal structure (Ahlqvist et al., 2008). The community comes into being because of interactions among members over time and firms must take deliberate steps to construct a community. One of these is the recognition of contributions from community members, particularly in support of product development forums (Muniz, Jr and O'Guinn, 2001; McAlexander et al., 2002), as well as the provision of other members with a way to judge the credibility of strangers (Culnan et al., 2010). Moreover, a community manager should never appear high-handed or reject users' involvement. A dismissive attitude can make individuals leave the community and arouse a negative attitude amongst the general public (Heckadon, 2010). For instance, sending users unsolicited or irrelevant content would give rise in all probability to negative perceptions within a community (Heckadon, 2010). Developers should facilitate users' access the community's site (Cooley, 2010).

A significant online presence by firms has been observed in recent times. Social media platforms allow firms to engage and interact with current/potential customers and that customer engagement enhances building important relationships with them (Mersey et al., 2010). This view was confirmed by Gorry and Westbrook (2011) and Hudson and Thal (2013) who stated that social media engagement offered the

opportunity to facilitate close relationships with customers. In terms of strategy, “engagement refers to the creation of experiences that allow companies to build deeper, more meaningful and sustainable interactions between the company and its customers or external stakeholders” and proposes that “It is not a fixed point that can be reached, but a process that expands and evolves over time” (EIU, 2007). In accordance with that, Geissinger and Laurell (2016) found that user engagement fluctuates considerably over time in the social media context, and it varies between different social media platforms. As mentioned by Rodriguez and Peterson (2012), one of the challenges facing customer engagement is not only discovering the prospective clients but, also, the equally challenging step to qualify the prospective customer. This interaction and engagement can be used to reach the qualified leads early by researching the expected customers (Shih, 2009). Consequently, the more customers engage with different social media platforms, the higher the number and quality of international business contacts. Based on the previous discussion, the researcher constructed the following hypotheses:

*H12: Customer engagement in using social media enhances the relationship between the use of social media and the number of international business contacts.*

*H13: Customer engagement in using social media enhances the relationship between the use of social media and the quality of international business contacts.*

As previously discussed, customer engagement can be defined as active interactions with a firm and with other customers (Kumar et al., 2010). Compared to the traditional perspective of brand-consumer engagement, the online consumers’ interactions with brands have changed the way of conversations from a one-way marketing communication, which is viewed as a brand-dictated monologue, to multi-party conversations (Deighton and Kornfeld, 2009; Hennig-Thurau et al., 2010, Parent et al., 2011).

The use of social media can offer many opportunities for companies to make the brand more noticeable by online interaction with consumers; this can enhance the market positioning of these brands (Beuker and Abbing, 2010; Zailskaite-Jakste and Kuvykaite, 2012). In the same vein, social media is considered to be a way to expose

customers to the brand and the more customers, who engage with it, the higher the awareness of the brand via these online communities (Hutter et al., 2013; Michaelidou et al., 2011; Van Doorn et al., 2010). According to Kirby (2006), “engaged customers drive word-of-mouth marketing that is ten times more effective at resonating with a target audience than television or print advertising” (Roberts and Alpert, p.198). Jackson (2011) concluded that the majority of Facebook and Twitter users claimed to be more inclined to discuss, endorse, or buy a firm’s products after engaging with that firm on social media according to research by Info-graphics. Consequently, the more customers engage with different social media platforms, the higher the brand awareness will be achieved. Based on the previous discussion, the researcher constructed the following hypothesis:

*H14: Customer engagement in using social media enhances the relationship between the use of social media and brand awareness.*

It is understandable that this type of engagement has proven popular among researchers given that it broadens essentially the usual role of customers and engages them in the value-adding process by obtaining information. This allows a firm to comprehend the needs of its customers; participating in product development; provides access to feedback in products and strategies; positioning of customers as brand advocates; and extending the reach and scope of their customers’ interactions to reach competitors’ customers (Sawhney et al., 2005; Sasch, 2012; Harrigan et al., 2015). Tikkanen et al. (2009) claimed that social interaction in virtual worlds, for example, where users communicated and interacted in real time, could be used to connect with customers; provide information and experiences; and obtain customer input.

This large amount of data (Henning-Thurau et al., 2010) can be used to understand customers’ preferences and needs and understand, also, competitors (Bijmolt et al., 2010). In accordance with this view, Singh et al. (2010) argued that the online engagement benefitted the firm through better understanding of the marketplace. Consequently, the more customers engage with different social media platforms, the more the firm can collect market information. Consequently based on the previous discussion, the researcher constructed the following hypotheses:

*H15: Customer engagement in using social media enhances the relationship between the use of social media and understanding customers' views and preferences through social media.*

*H16: Customer engagement in using social media enhances the relationship between the use of social media and understanding competition in different markets via social media.*

### **2.3.3.5 The Moderating Role of Cultural Adaptation on the Relationship between Understanding Customers' views and Preferences through Social Media, Understanding Competition in Different Markets via Social Media and Export Performance**

Culture is held to be an important element in international marketing (Engelen and Brettel, 2011). Culture and society have an influence on people's values and these values affect their behaviours and attitudes (Alas and Tuulik, 2007). In the international market, the cultural context has a considerable influence on decisions regarding adaptations and standardisations from firms' points of view (Virvilaite et al., 2011).

In traditional marketing literature, the term "localisation" is employed frequently as a contrast to the term "globalisation" (e.g. Ramarapu et al., 1999). Similarly, "adaptation", is used generally as a contrast to "standardization" (e.g. Ryans Jr et al., 2003). The definition of localisation, given by the Localisation Industry Standards Association (2007), is the following: "Localisation involves taking a product and making it linguistically and culturally appropriate to the target locale (country/region and language) where it will be used and sold".

For firms to succeed in international markets, it is important to realize the differences in cultures as a key success factor in the world marketplace (Guang and Trotter, 2012). Differences in the cultural, economic, and regulatory environments require an adaptation in marketing strategy (Cavusgil and Kirpalani, 1993; Sousa et al., 2010). Researchers, in the field of international business, reported that consumer preferences, values, attitudes, and education could affect the level at which a marketing approach could be standardized (e.g., Hill and Still, 1984; Aydin and

Terpstra, 1981). Wang (1996) argued that it was difficult to implement standardization in a global cultural setting when customers' characteristics fluctuated to a significant degree.

Jackson (2007) asserted that the Internet represented a new way of communication, as digitalisation enabled asynchronous communication between distant and frequently unknown interlocutors. Accordingly, increasing online opportunities have pushed firms to present themselves; to communicate with consumers, suppliers and others involved in their business; and to market and sell their products and services through e-commerce (Simeon, 1999).

However, building a global internet marketing strategy, which overcomes cultural barriers, is considered to be a critical factor if marketing is to be successful. In other words, different countries' cultures must be taken into account when marketing on the Internet (Chan and Swatman, 2000; Kotab and Helsen, 2000). A culturally well designed website can be defined as "communicating the right information at the right place with the right layout in the right manner and in the right time according to the culture of each of its users" (Hermeking, 2006, p.202). Several studies conducted research with the aim of discovering whether users preferred localised or standardised websites (Faiola and MacDorman, 2008; Cyr and Trevor-Smith, 2004; Singh et al., 2005; Vyncke and Brengman, 2010). The findings of these studies indicated that users tended to visit localised websites more often and to remain on them longer. In light of this research, Singh et al. (2005) concluded that cultural variations ought to be taken into account in website design and that websites ought to be localised. Since the World Wide Web continues to develop globally, consideration of the cultural dimensions will become a necessity and not an option for successful website localisation (Maroto and de Bortoli, 2001).

In social media diffusion, the significance of culture and language cannot be neglected since social media is created "by the people, for the people" in an unprecedented online social context (King, 2010). Data on the use of social media indicates that there are considerable differences among countries regarding its use (Goodrich and DeMooih, 2013), the creation of content and the sharing of "crowd wisdom". Culture affects people's behaviours and perceptions of events presented on

technology platforms like social media (Pookulangara and Koesler, 2011). Essentially, users' interpretations of social media content depend upon their ethnic or cultural backgrounds. Accordingly, firms should take these characteristics into account when implementing a social media strategy since social media platforms themselves incorporates various cultural elements. Also, cultural backgrounds may affect the formulation of customers' opinions and attitude toward a brand (Paquette, 2013).

Social media platforms can be employed in international business. One approach to overcoming the language barrier has been to make provision for the formation of groups and sub-groups specifically for non-English-speaking users; to employ group managers who are multi-lingual (Bruno, 2011); and to allow the creation of accounts in several languages (Quattlebaum, 2012). The contents of different social media platforms can be made to the groups in different languages and, also, can be translated and localised (Quattlebaum, 2012). In this respect, Singh et al. (2012) argued that firms, wishing to enter international markets, ought to translate and localise their social media platforms if they wanted truly to penetrate global markets so that their marketing objectives could be achieved.

As mentioned previously, the availability of quality, timely and relevant information is an important element in many firms having successful export marketing (Doole et al., 2006; Wang and Olsen, 2002). This information is a crucial element when firms expand into international markets (Knight and Liesch, 2002). Tsai and Shih (2004) found that the firm's performance could be improved through the usage of a marketing information system which enhanced its marketing capabilities. In accordance with this view, Souchon and Durden (2003) concluded that both the gathering and use of export information had a positive effect on the firm's export market performance. Also, Souchon and Diamantopoulos (1997) illustrated that the information, collected from the international markets, affected the firm's international performance.

For the effective use of this information, communication is a vital aspect of marketing channels (Mohr and Nevin 1990). In this respect, a number of international marketing studies offered support to the argument that cultural



differences affected communication. According to Rosson and Ford (1982), the variable with the highest and most positive association to exporter performance is the strength of communication in the relationship between the manufacturer and the overseas distributors. They found, also, that inadequate adaptation to local culture and standardised communication had a negative effect on performance.

Hence, many researchers agreed that the impact of culture was crucial in communication strategies (Razzouk et al., 2002). Melewar and Vemmervik (2004) argued that on assertions by those in favour of adaptation, inter-cultural variations were so significant that standardization was unrealistic and could lead to wasted competitive advantage and lower sales. Consequently, this communication has to be localised in order to recognize cultural differences in values, beliefs, tradition, and language (Zhou and Belk, 2004). Furthermore, Bandyopadhyay et al. (1994) asserted that, in the marketing channels of the lighting equipment industry in both the United States and India, there were considerable variations among the communication strategies in use. As a result of greater global competition, marketing communication experts were driven to pinpoint more specific customer targets from different cultures (Roberts and Ko, 2011).

The export manager has to acquire cultural intelligence which has garnered a lot of attention in human resource literature (Ang et al., 2006). However, it is still scarce in international marketing literature. Evidence has shown that the sales performance, with a culture other than the salesperson's own culture, increases with high cultural intelligence (Chen et al., 2012). Behavioural cultural intelligence can be defined as "the capability to exhibit appropriate verbal and non-verbal actions when interacting with people of different cultures" (Ang et al., 2007, p.338). Accordingly, export managers, with high levels of culture intelligence, are better prepared to adapt to culture manifestation for specific market than managers with lower levels of culture intelligence (Ang et al., 2006). That is why it becomes obligatory for firms to customize their global marketing strategies for social media use to fit global cultural differences to better benefit from market intelligence for their export performance since the firms cannot standardize social media use across borders (Berthon et al., 2012). Building on the logic, it can be proposed that, when using social media,

cultural managers' adaptations will affect the way that market intelligence is used for export performance.

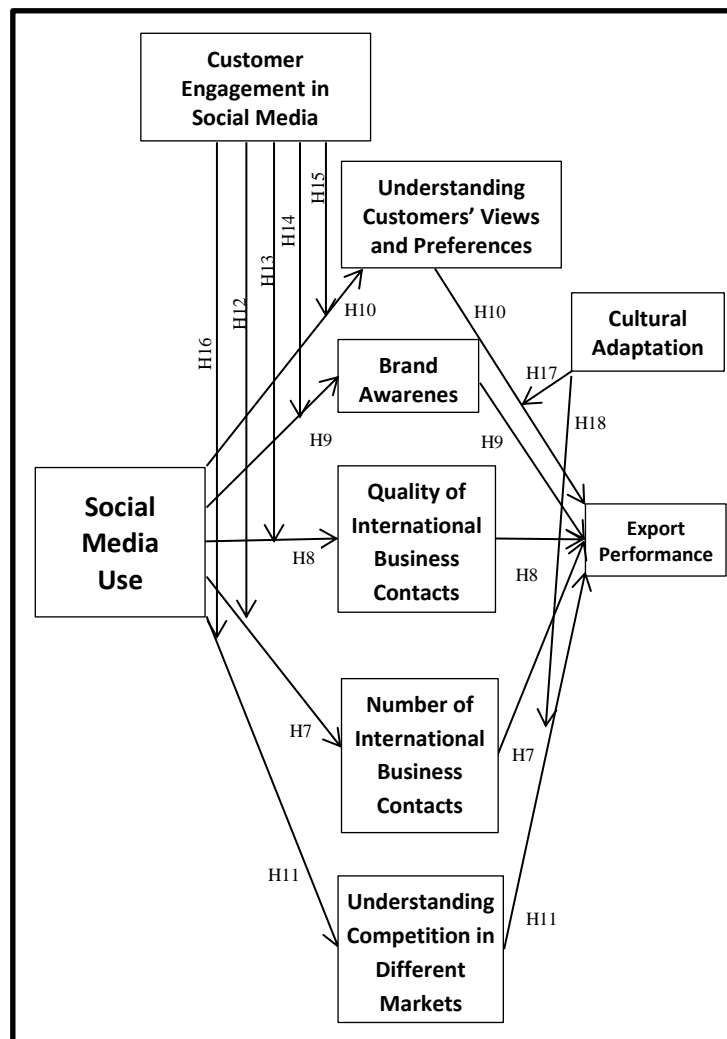
On this basis, the researcher constructed the following hypotheses:

*H17: Cultural adaptation enhances the relationship between understanding customers' views and preferences through social media and export performance.*

*H18: Cultural adaptation enhances the relationship between understanding competition in different markets via social media and export performance.*

According to the previous discussions, the following framework could be presented.

**Figure 2.18: The Moderating Effects of Customer Engagement and Cultural Adaptation on the Implications of Using Social Media by SMEs B2B Firms for Export Purposes**



As previously discussed in the implications of using social media section, this research proposes the expected indirect effects of the social media use on export performance through (number and quality of international business contacts, brand awareness, understanding customers' views and preferences through social media, understanding competition in different markets via social media), which has not been examined previously in the social media context. Only relationships between the use of social media and: (1) the scope of international contacts and networking (see Hamill et al., 2011; Rodriguez et al., 2012; Stelzner, 2013; Piller et al., 2012; Michaelidou et al., 2011); (2) the brand awareness (see Bruhn, 2014; Hutter and Hautz, 2013; Mangold and Foulds, 2009; Weinberg, 2009; Immediate Future, 2008); (3) the understanding of their customers' views through social media (see Rodriguez et al., 2012; Kozinets, 2002; Constantinides, et al., 2008) ; (4) the understanding of international competition via social media (see Dey et al., 2011; Governatori and Iannella, 2011); and (5) salesperson/export performance (see Rapp et al., 2013; Alarcon et al.,2015) were proposed theoretically and not holistically except for very few studies (see Rodriguez et al., 2012; Michaelidou et al., 2011) who empirically examined some of these direct relationships (not mediating relationships) with totally different measures from the current study and did not apply them in the context of export.

On the other hand, customer engagement was proposed to moderate the relationships between the use of social media and the number and quality of international business contacts, brand awareness, understanding customers' views and preferences through social media and understanding competition in different markets via social media. The researcher is unaware of previous empirical research in this area. In addition, other than through theoretical research (e.g. Singh et al., 2012), the moderating effects of cultural adaptation on the relationships between (understanding customers' views and preferences through social media and understanding competition in different markets via social media) and export performance have never been tested before.

## 2.4 Chapter Summary

This chapter reviewed the literature in the domain of marketing, IT, MIS. It examined some theories such as: Theory of Reasoned Action (TRA), Theory of Planned Behaviour (TPB), Decomposed Theory of Planned Behaviour (DTPB), Technology Acceptance Model (TAM), Unified Theory of Acceptance and Use of Technology (UTAUT), and Innovation Diffusion Theory (IDT). Studies which used IDT found that only “relative advantage” and “complexity” related strongly to the adoption of technological innovation. Similarly, TAM studies found that the Technology Acceptance Model (TAM) was quite similar to the Innovation Diffusion Theory. There were clear similarities between Davis’ constructs, “Perceived Usefulness” (PU) and “Perceived Ease of Use” (PEOU) and Rogers’ “relative advantages” and “complexity”. IDT involved the formation of favourable or unfavourable attitudes toward an innovation but did not profile any information about the relationships between the attitudes and the actual accept/reject decision. On the other hand, TAM provided theoretical linkage about beliefs, attitudes, intention and action. Therefore, these factors, which appeared to affect the adoption of social media for marketing purposes were identified. These were namely: 1) ease of use; and 2) relative advantage. Also, observability which was included in IDT was tested as an observable social media phenomenon, and finally, social influence since it was found to relate to the adoption/use of new technology.

Despite the increasing academic interest around some of these theories in the IT/MIS domain, the researcher was unaware of previous research which had examined some of these theories together (TAM, IDT) in social media marketing except by extending TAM (Pentina et al., 2012; Christodoulides et al., 2015; Veldeman et al., 2015), or applying extended TAM and resource-based theory (Siamagka et al., 2015). Other research employed these theories from a customer perspective (see Zolkepli and Kamarulzaman, 2011; Van Raaij and Schepers, 2008; Pinho and Soares, 2011; Li et al., 2011; Macredie and Mijinyawa, 2011; Hossain and De Silva, 2009; Wang et al., 2010), and from an internal enterprise perspective (workspace) (Gunther et al., 2009).

Consequently, the moderating effect of the firm's training and innovativeness on the relationship between (PEOU, PRA, SN) and the use of Social Media (SMUSE) was examined since this moderating role had been scarcely tested before and only in some contexts other than social media except for Siamagka et al. (2015) study on the moderating effect of the firm's innovativeness.

In addition, this chapter proposed the expected indirect effects of the social media use on export performance through the number and quality of international business contacts, brand awareness, understanding customers' views and preferences through social media and understanding competition in different markets via social media.

Also, the researcher proposed customer engagement to moderate the relationships between social media use and the number and quality of international business contacts, brand awareness, understanding customers' views and preferences through social media and understanding competition in different markets via social media. In addition, the researcher investigated whether the relationship between understanding customers' views and preferences and export performance was moderated by cultural adaptation. Likewise, the researcher investigated whether the relationship between understanding competition in different markets and export performance was moderated by cultural adaptation. The researcher was unaware of previous research on these mediating and moderating relationships in the context of social media to assist exporting efforts. The next chapter discusses the methodology.

**CHAPTER THREE:  
RESEARCH METHODOLOGY**

# **CHAPTER THREE**

## **RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter will outline the research paradigm. It proposes the research approach and the suitable research methods to answer the research hypotheses, presented in the previous chapter, and, finally, outlines the research design followed.

### **3.2 Research Philosophy (Paradigm)**

It is relevant to the research to offer an overview of the ideological standpoint upon which the research is based. A paradigmatic ideology is a conceptual psychological framework which represents the researcher's belief system and guides his or her investigator's activities (Guba, 1990; Milliken, 2001). Likewise, Creswell (2009, p.6) argued that a paradigm is "a basic set of beliefs that guide action" that determines a researcher's view about the world and the nature of knowledge. Collis and Hussey (2003, p.46) defined a research philosophy as "the progress of scientific practice based on people's philosophies and assumptions about the world and the nature of knowledge". In addition, Malhotra and Birks (2003, p.136) defined a paradigm as a "set of assumptions consisting of agreed-upon knowledge, criteria of judgment, problem fields and ways to consider them".

The research technique (methodology) is derived from the researcher's beliefs about the essence of the reality (ontology) and the way of extracting knowledge within the paradigm (epistemology) (Perry et al., 1999; Guba and Lincoln, 2004; Thompson and Perry, 2004; Saunders et al., 2009). Namely, "ontology is reality, epistemology is the relationship between the reality and the researcher, and methodology is the technique which is to be used in investigating the reality" (Thompson and Perry, 2004, p.404). Regarding the ontology, Cohen et al. (2000, p.5) inquired whether there "is social reality external to individuals imposing itself on

their consciousness from without- or is it the product of individual consciousness?" Therefore, it can be concluded that the ontology has two aspects: objectivism and subjectivism. The objective nature of reality means that the researcher is unaffected by the participants' opinions or beliefs. On the other hand, subjectivism means that respondents' opinions can build or at least modify the individual's beliefs through "understanding the meanings that respondents attach to social phenomena" (Saunders et al., 2009).

Healy and Perry (2000) argued that the researcher's interpretation of reality was influenced by the optimal choice of paradigm; the relationship between the researcher, the reality and the methodology used by the researcher as shown in Table 3.1 (Healy and Perry, 2000).

**Table 3.1: Basic Belief Systems of Alternative Enquiry Paradigms**

| <b>Element</b>  | <b>Postpositivism Paradigm</b>  | <b>Critical theory Paradigm</b>   | <b>Constructivism Paradigm</b>  | <b>Postpositivism Paradigm</b>  |
|---|---|---|---|---|
| Ontology (Reality)  | Reality is real and apprehensible   | "Virtual" reality shaped by social, economic, ethnic, political, cultural, and gender values, crystallized over time    | Multiple local and specific "constructed" realities                                     | Reality is "real" but only imperfectly and probabilistically apprehensible.   |
| Epistemology (Relationship between researcher and reality)      | Finding the truth   | Value-mediated findings   | Created findings  | Findings probably true  |
| Common methodologies (Techniques used to discover that reality) | Experiments/surveys: verification of hypotheses: primarily quantitative methods | Dialectical: Researchers is a "transformative intellectual" who changes the social world within which participants live | Dialectical: Researcher is "passionate participant" within the world being investigated | Experiments /surveys: Doing inquiry in natural settings, and collecting more situational information by heavy emphasis on quantitative methodology, however, accepting qualitative approaches to some extent. |

Source: Perry et al. (1999, p.17), based on Guba and Lincoln (1994, p.109)



The positivism paradigm is the first paradigm to be discussed. This is sometimes referred to as “Scientific Research” in contrast to “Social Research”. Positivists choose to work “with an observable social reality and that the end product of such research can be law-like generalisation similar to those produced by the physical and natural scientists” (Remenyi et al., 1998, p.32). The two main features of positivism are suppositions that the world is orderly and that it can be studied objectively (Oates, 2006).

Ontologically, the researcher is assumed to be objective and removed from the research’s objects. Hence, the observer’s impartiality is assured (Perry et al., 1999; Amaratunga and Baldry, 2001). Consequently, the researcher takes the role of an objective analyst, making impartial interpretations of those pieces of data which have been gathered in an ostensibly value-free manner (Gill and Johnson, 2010; Bryman and Bell, 2011). Therefore, the natural and social sciences measure independent facts about a single apprehensible reality composed of discrete elements whose nature can be known and categorised (Guba and Lincoln, 1994). In epistemological terms, given that the positivists seek causal explanations and derive relationships using variables, the belief that objective and reality representable data is obtainable forms the basis of positivism (Thompson and Perry, 2004; Oates, 2006; Bryman and Bell, 2011). Since the essence of positivism is quantitative with deductive objectives used to measure a unique reality, the whole is deconstructed to its basic components in order to accommodate analysis (Patton, 1990; Perry et al., 1999). Positivism is, therefore, the wrong stance to adopt in this research. This is because the current work is founded on the assumption that a real physical world exists beyond human comprehension and means that reality can be evaluated in a limited manner as a result of the shortcomings in our knowledge of this reality.

Critical theory is the second paradigm. Perry et al. (1999) defined critical theory whereby social, economic, political and gender values or standards, which have emerged over a period of time, are used to construct reality. As a researcher with a responsibility for intellectual transformation capacity, the researcher’s assumptions are subjective given that they derive from his/her social-historical knowledge and, therefore, they are value-dependent (Guba and Lincoln, 1994; Perry et al., 1999). Multiple internal and subjectively-developed realities comprise the reality explained

by the perspectives and beliefs of the individuals on which the paradigm is founded (Thompson and Perry, 2004). Given that the researcher makes no attempt to separate participants from their historical, cognitive, affective or social structures, the paradigm can be considered inapplicable (Perry et al., 1999) since an individual believes in society, culture, economy, ethnicity, and gender relations remain unchanged.

Constructivism is the third paradigm. Supporters of constructivism consider that truth is a construct of belief systems in a given context whereby reality is actually a collection of realities which are unique and intangible on a personal level and have social and experiential bases (Perry et al., 1999; Bryman and Bell, 2011). Through participant collaboration during data collection, the researcher constructs realities related to this paradigm. This strategy may be appropriate for religion research but less so for marketing research since this approach does not address factors related to the economic and technological characteristics of business (Healy and Perry, 2000; Thompson and Perry, 2004).

Alternatively, a post-positivist or realistic approach avoids the notion that one is capable of seeing the world clearly, as it really is, and that several viewpoints are required in order to attain objectivity (Hirschheim, 1992). Realists attempt to develop different views (perceptions) of reality and seek to understand phenomena while considering the discrepancies that exist between the real world and how they perceive it (Thompson and Perry 2004; Guba and Lincoln, 2004). The realists differentiate between three components: the reality; the actual; and the empirical. According to Sayer (2000), the reality, which consists of (objects, their structure, and power), exists regardless of how we understand it or whether or not we experienced it, and that reality refers actually to the outcome of the activation of the structure and powers. The empirical component refers to the domain of the experience. Realists, unlike critical theorists who accept multiple realities, acknowledge only one reality and, as previously mentioned, that actuality is not a complete representation of the reality (Thompson and Perry, 2004; Perry et al., 1999).

The post-positivism paradigm is the appropriate one for this research since the reality exists outside the researcher's mind. According to critical realism, one can

understand reality only to a limited extent regarding the difficulty of obtaining the entire picture of a specific phenomenon. This partial reality can be viewed through the participant's window (Thomas, 2004). Hence, reality can be examined to a certain extent and the generalisation can be made with a degree of probability. Hirschheim (1992) suggested that the claim of a lack of one single correct method of scientific enquiry was a feature of post-positivism since it incorporated many methods. For such purposes, in-depth interviews along with personal interviews were used for scales development where no suitable operationalization and measurement items could be used from previous studies apart from some concepts from the literature. Initially, the researcher conducted both in-depth and personal interviews with expert data-rich sources since these individuals understood social media and exporting fields. These pieces of data provided a window into the partial reality (not perfectly and apprehensible one like positivism), that could be complemented with other perceptions (Perry et al., 1999) which could be obtained through questionnaires.

### **3.3 Research Approaches**

Although research is important for both business and academic activities, there is no consensus in the literature as to its definition. However, despite the many definitions of research on offer, there appears to be general agreement that it is a systematic and methodical process of enquiry and exploration and that it adds to knowledge of the topic concerned.

Buckley et al. (1975) contended that an operational definition of research had to fulfil the following criteria:

- An organised investigation of an identified problem;
- Use of relevant scientific methods;
- Conclusions are reached based on the evidence, through adequate reasoning, with no bias;
- The validity or rationale of the conclusions can be demonstrated; and

- The research offers general principles or rules which may be applied confidently in similar circumstances in future studies.

May (2001); Nachmias and Nachmias, (1996) and Remenyi et al. (1998), stated that there were two primary approaches to scientific research, namely theory-then-research and research-then-theory (also referred to as deduction and induction, or grounded and grand). The theory-then-research approach focuses on testing hypotheses. The deductive research is “a study in which a conceptual and theoretical structure is developed and then tested by empirical observation; thus particular instances are deduced from general inferences” (Collis et al., 2003, p.15). Theory is used to construct hypotheses and, then, data to accept or reject these are gathered and analysed. Theory testing can be carried out by developing a model; constructing a number of propositions which describe the relationships between certain variables; designing a research instrument (e.g. a questionnaire) to examine the model; testing the propositions; and refining the model (May, 2001). Accordingly, this deductive approach starts from the generality and ends with the specific. Robson (2002) identified five stages through which deductive research to testing theory proceeded. As listed below, the stages are:

- Deducing a hypothesis (a testable proposition from the theory about the relationship between two or more events or concepts);
- Expressing the hypothesis in operational terms (i.e., detailing how the specific variables will be assessed in order to establish a relationship between two given variables);
- Testing this operational hypothesis which involves an experiment or another type of empirical inquiry;
- Evaluating the particular outcome of the enquiry; this will tend either to confirm the theory or indicate that its modification is necessary; and
- Modifying the theory based on the outcome above, alteration of the theory as needed.

However, the research-then-theory strategy states that empirical studies should construct new theories rather than be restricted to verifying existing ones (Benbasat et al., 1987; Strauss and Corbin, 1990). Collis et al. (2003, p.15) defined inductive research as “a study in which theory is developed from the observation of empirical

reality; thus general inferences are induced from particular instances”. This strategy begins with a determination of the phenomenon’s features and, then, gathers data on which to build theories (Strauss and Corbin, 1990). The purpose is to obtain an impression of what is occurring in order to gain a better understanding of the nature of the problem. This approach attempts to understand and to explain a phenomenon rather than seeking external causes or fundamental rules (Easterby-Smith et al., 2001). Then, the researcher’s responsibility is to make sense of the interview data gathered through their analysis. The results of this analysis become the formulation of a theory. Thus, inductive reasoning is more open-ended and exploratory in its nature.

Despite their inherent differences, both strategies consider theory to be a reflection of scientific progress. Given that empirical research cannot be performed in the absence of a specific theoretical perspective, it should be based essentially on theory. However, Remenyi et al. (1998) and Bryman and Bell (2011) argued that theoretical research drew on specific observations or original data obtained through empirical research. Therefore, it can be said that theoretical research is the end product of a process of considering the outcomes of previous empirical research along with interpretations of theoretical perceptions of others, and that it is not an independent process.

Table 3.2 presents, in more detail, the key variations between the two approaches (Saunders et al., 2009).

| <b>Table 3.2: Key Differences between Deductive and Inductive Approaches</b>  |   |
|---|---|
| <b>Deductive Approach</b>   | <b>Inductive Approach</b>   |
| <ul style="list-style-type: none"> <li>• Scientific Principals.</li> <li>• Moving from theory to data.</li> <li>• Casual relationships between variables needed to be explained.</li> <li>• The collection of quantitative data.</li> <li>• The operationalization of concepts to ensure the clarity of definition.</li> <li>• A highly structured approach.</li> <li>• Researcher independent of what is being researched.</li> <li>• Generate conclusions requires sufficient sample size.</li> </ul> | <ul style="list-style-type: none"> <li>• Gaining an understanding of the attached meanings to events.</li> <li>• Ongoing changes could be permitted to the research emphasis as the structure is flexible.</li> <li>• The researcher is not separated from the research process.</li> <li>• The need to make generalisation is less important.</li> </ul> |

Sources: Saunders et al. (2009, p.127)

The researcher employed a deductive approach to this study in order to generate hypotheses from theoretical reflections. Hence, the researcher followed the deductive approach to build the final framework for the research which was presented in section 2.3. In addition, the researcher used the framework to collect the primary data from a large sample in order to test these hypotheses.

### **3.4 Research Methods**

A number of research methods can be used to gather data; these can be considered quantitative or qualitative in nature (Blaxter et al., 1996; Remenyi et al., 1998). Suitable methods must be implemented in a way that is applicable to the research context in order for any research to be successful in case it presents the problem in a scientific way. Downey and Ireland (1979) and Silverman (2006) indicated that the selection of the correct methods for a given piece of research could prove to be challenging since the suitability of a particular method could not be determined without considering, also, the context in which the research problem existed.

The next section, which includes a more detailed discussion of these approaches, is as follows.

## **- Quantitative and Qualitative Methods**

Initially derived from the natural sciences, quantitative research can be thought of as research involving many respondents who consider structured questions with the response options being determined in advance. Qualitative research, however, includes the gathering, analysing, and interpreting of data by studying people's actions and opinions (Creswell, 1994; Bryman and Bell, 2011) and, therefore, is carried out in close contact either with a field or real-life situations. Miles and Huberman (1994) argued that these situations were typically representative of normal daily life amongst individuals, groups, societies, and organisations.

According to Denzin and Lincoln (1994), quantitative research favours the structural approaches to measurement and analysis of relationships between specific variables rather than of complex processes. In the same vein, Taylor et al. (2003) asserted that quantitative approach tended towards explaining and predicting events in the social world by seeking regulations and causal relationships between variables in order to generalise results. However, the disadvantage of using quantitative research stems from its inability to ascertain deeper underlying meanings and explanations even when the data is significant, reliable and valid (Bryman and Bell, 2011). Hence, those quantitative approaches tend to produce narrow but generalizable results (McClintock et al., 1979). Bryman and Bell (2011) argued that quantitative research was criticised as having an artificial and spurious sense of precision of the measurement process; this hindered the connection between research and everyday life and was seen, also, as having a static view of social life.

Conversely, qualitative research is conducted typically on a smaller scale and seeks to describe phenomena in more detail instead of through statistical generalisation which could be conducted by observation and involvement of the phenomena under investigation (Bryman and Burgess, 1994). However, the drawbacks of using a qualitative research approach include issues of interpretation as well as problems in data analysis (Miles and Huberman, 1994; Bryman, 1995). Furthermore, qualitative data is linked to subjectivity, insufficient experimental control, replication challenges and lack of transparency. This means that its use is restricted to specific types of research (Sykes and Warren, 1991, Bryman and Bell, 2011).

With respect to the variations of epistemological orientation and ontological orientation which exist between quantitative and qualitative research regarding the primary orientation taken to the relationship between theory and research, quantitative research can be thought of as applying a deductive approach (testing of theory) to the relationship between theory and research. It involves the practice and norms of natural sciences (especially positivism) to consider social reality as an external, objective reality. Conversely, qualitative research favours an inductive approach (generation of theory) to the relationship between theory and research and emphasises the viewpoints of individuals towards society and the development of a social reality created by individuals (Bryman and Bell, 2011).

Consequently, Onwuegbuzie and Leech (2005) argued that quantitative and qualitative methods resulted from different ontological and epistemological assumptions about the nature of research and those paradigms could not be mixed because each of them held a different position regarding how the world was viewed. On the other hand, pragmatists argued that “quantitative methods are not necessarily positivist, nor are qualitative techniques necessarily phenomenological” (Onwuegbuzie and Leech, 2005, p.378). Accordingly, they promoted combining methods within a single study. Therefore, it is acceptable for the researcher to implement one method or more than one method. The use of more than two methods to obtain data is referred to as triangulation or the multi-method approach since it can be used to obtain an increased understanding and comprehension of the social world (Bickman et al., 1998).

Triangulation is defined commonly as the use of methods in combination when researching the same phenomena, although it can be thought of more precisely as a combination of two or more data sources, researchers, methodological approaches, or theories within the same piece of research (Kimchi et al., 1991). The purpose of triangulation is that its successful use relies on the notion that the disadvantages of using each method alone are mitigated by the advantages of the other methods. Both qualitative and quantitative methods have several characteristics; these can be considered to be either benefits or limitations (Bryman, 1989). Other researchers (Das, 1983; Amaratunga, et al., 2002) argued that when both quantitative and qualitative approaches were implemented, each method provided a unique



perspective on the same phenomena. Bryman (1989) and Das (1983) illustrated that these approaches were mutually exclusive and that the use of triangulation implied that the validity of conclusions increased by providing an overall consideration of a given phenomenon. Essentially, this means that methods are used in combination to allow the researcher to obtain richer and more in depth details of the research topic (Amaratunga, et al., 2002). Furthermore, Rossman and Wilson (1991) argued that the combined use of quantitative and qualitative data could allow for either confirmation or corroboration of each other via triangulation; elaborating or developing analysis; providing richer details; initiating new lines of thought through attention to surprises; and providing fresh insights. However, the use of triangulation can be a limiting factor; for example, the processing of large amounts of data can be challenging and discrepancies can arise either from researcher bias or conflicts due to theoretical frameworks.

### **3.5 Research Design**

Research design is concerned with organizing research activity in ways that are most likely to achieve the research aims (Easterby-Smith et al., 2001; Cooper and Schindler, 2001). It is a plan of study which is used as a guide to collect and analyse data (Churchill and Lacobucci, 2005).

The literature categorizes research as exploratory, descriptive, or explanatory. Exploratory research is used to reach a better understanding of the research problem (Saunders et al., 2009). It is used mainly when there is little understanding of the topic such that it is difficult to generate hypotheses. According to Churchill and Lacobucci (2005), descriptive research seeks to describe the participants' demographics and to identify the frequencies, percentages, mean and standard deviation of the applied constructs. It is more rigid than exploratory research since the research problem is structured and better understood (Cooper and Schindler, 2001; Ghauri and Gronhaug, 2002). Explanatory or casual research is applied when the relationship and correlation between the model's variables need be explained by performing experiments (Zikmund, 2000). In this study, the researcher implemented

an explanatory research design as the primary aim of the research in order to determine the relationship between the variables of the conceptual model.

Additionally, in this study, the researcher adopted a cross-sectional research, employed a quantitative data collection method and used a survey to obtain the data. It means that all the information is collected from a specific sample at the same time (Malhorta and Birks, 2007). The benefit from such samples is improved representation of the population in the actual sample (Malhorta and Birks, 2007). The following section outlines the research design including population, sampling, sample size, unit of analysis, data collection, questionnaire design, measurement issues, and questionnaire administration.

### **3.5.1 Population**

The broad description of the term population is “a set of units that sample is meant to represent” (Vaus, 2007, p.69). In the same vein, Kumar (2000) defined population as a set of all objects with a common set of predetermined characteristics in terms of a research problem. The firms included in this study’s sample had to meet the following criteria:

- 1- Be Business-to-Business;
- 2- Be UK based SMEs (with fewer than 250 employees);
- 3- Use social media for marketing purposes, particularly for assisting exporting efforts; and
- 4- Operate globally.

The researcher was interested mainly in Small and Medium sized Enterprises (SMEs) because an estimated 4.9 million UK businesses were SMEs which account for almost 99% of all business in the UK and represented 49.8% of the UK economy (Rhodes, 2015). Additionally, SMEs appeared to expand internationally in 2015 more than in 2014 with the most popular new markets for exports being Europe and North America. Business-to-Business (B2B) firms expanded further than B2C firms (Economic Voice, 2015). Moreover, B2B firms are more suited to utilise social media due to their flexibility and the massively reduced marketing costs that social

media offers due to others connecting with each other which, in turn, enhances the marketing of products (Harris and Rae, 2009). Those B2B firms have moved from the transactional approach to enter a new era of marketing information. In this area, the key success of marketing is the successful acquisition, analysis, and deployment of information (Holland and Naude, 2004). Hence, those B2B firms can benefit from using social media. Moreover, social media applications may help to overcome the time and distance barriers (Constantinides et al., 2008). Accordingly, there is a potential benefit from using social media for exporting activities (Berthon et al., 2012). As mentioned earlier, this was the reason why the researcher chose these firms which were using social media to assist with their efforts at exporting.

In order to select the firms which fulfilled these criteria, the researcher used the following databases:

- a. The FAME database accessible through the University of Strathclyde library website. The database contained details of at least 2.8 million companies in the UK and the Republic of Ireland. The information included company accounts, ratios, activities, ownership and management for the 1.9 million largest UK and Irish companies, and summary information for a further 900,000 smaller businesses. This database was the basis for the researcher choosing for this research the SMEs (number of employees below 250 and annual turnover not exceeding EUR 50 million) which were exporting from the UK to other countries (profit and loss accounts contained the item “overseas turnover”).
- b. The Dun and Bradstreet database, known recently as the HOOVERS database, which the researcher accessed through the National Library of Scotland website <http://auth.nls.uk/ldc/>.
- c. Applegate Directory at [www.applegate.co.uk](http://www.applegate.co.uk), which is an online directory for industry; manufacturing and service firms in the UK and Ireland. The researcher used this database mainly to confirm whether or not the firm was B2B.

The researcher had to use several databases for the representative issue of the sample. He had to screen the firms, obtained from these databases, according to the required sample criteria for the following reasons:

- Some of the databases, particularly the FAME database, had numerous incorrect addresses and e-mails, perhaps because they were not updated regularly.
- Some of the firms on these databases appeared more than once.
- Some of the databases did not provide the managers' e-mail addresses.
- Some firms, which the researcher assumed to be UK companies, in fact were based in other countries.

In order to assess whether or not a firm fitted the sample criteria, those, which did not have sufficient information describing them, had to be cross-checked further with their entry in another database which gave some more information. Moreover, the researcher looked up further details on their own websites either through Internet search engines or, where possible, by telephoning the companies directly. Additionally, for the multiple records, i.e. the same company that appeared in more than one database, this record had to be kept only in one database and deleted from the others. At the end, the researcher found a total of 1043 firms which met the criteria.

It was necessary to select key informants who could bring appropriate knowledge to the study (Malhorta, 1996). Only those with knowledge of the issue being researched, i.e. using social media for exporting efforts, were eligible (Bagozzi et al., 1991). Accordingly, the researcher targeted those high ranking informants with the ability to communicate the firm's perspective through a questionnaire and, also, those who could produce reliable information (Mitchell, 1994).

### **3.5.2 Sampling**

Research is conducted usually by means of a specific sample since it is rarely feasible to carry out research on an entire population because research investigations incorporate typically many multiple elements which would be extremely challenging to collect and examine (Gay and Airasian, 2000; Sekaran, 1984). In this regard, Hair (2007) argued that, since the location of all the elements of the population was difficult and could be unpractical, thus, an appropriate precisely selected sample could provide sufficient information. Hence, the process of sampling involves

building up a subset of a population under investigation which is used then to represent this population. According to Krathwohl (1997, p.160), sampling procedures are “ways of selecting a small number of units from a population to enable researchers to make reliable inferences about the nature of that population”.

Probability and non-probability techniques are the two types of standard sampling techniques. The former uses the random sampling of units from the population at a given stage in the process (Krathwohl, 1997). In order to ensure that the selection process is random, specific processes or procedures must be applied so that the different units in the sample population are equally likely to be selected. For instance, simple, stratified, systematic or cluster random sampling approaches can be used (Nachmias and Nachmias, 1996). As stated by Tashakkori and Teddlie (2003, p.713), probability sampling techniques involve “selecting a relatively large number of units from a population, or from specific subgroups (strata) of a population, in a random manner where the probability of inclusion for every member of the population is determinable”. Therefore, the primary objective of probability sampling is to attain a representative sample which accurately reflects the entire population.

However, according to Krathwohl (1997), non-probability sampling methods are methods which eschew random sampling in any part of the procedure and are popular due to their convenience. Non-probability sampling can be classified as convenience and purposive sampling. Known as the grab method, the convenience sampling method is “undoubtedly the most commonly used non-probability technique.” Krathwohl (1997, p.171). By using convenience sampling, the researcher is able to choose several cases mostly through the availability of respondents and the simplicity of data collection. However, its disadvantage is that rather than allowing the researcher to improvise with the resources available for the research, it limits his/her ability to generalise the results to the entire population (Bradley, 1999). In purposive sampling, the researcher is clear about the study requirements and can conduct sampling with a clear purpose (De Vaus, 1996). As described by Maxwell (1997, p.87), purposive sampling is a type of sampling in which “particular settings, persons, or events are deliberately selected for the important information they can provide that cannot be gotten as well from other choices”. In this research, the

researcher used the probability systematic sampling technique since it was more likely to provide a representative sample and, therefore, to promote the sample accuracy referred to previously. Furthermore, the researcher used a convenience sample for both the in-depth and personal interviews.

### **3.5.3 Sample Size**

Bryman and Cramer (2005) illustrated how a large sample size was important to ensure that the obtained data could form a verifiable foundation for making inferences, recommendations and key decisions since confidence in extrapolation from sample to population was greater with a greater sample size (Krathwohl, 1997). Krathwohl (1997, p.162) stated, “A small sample might contain only cases with one extreme characteristic of the population. Only with a larger sample is the chance factor minimised”. With respect to surveys, the power of statistical tests is increased and standard error is reduced when the sample size is bigger.

Although some researchers argued that the typical sample size in studies, where SEM was applied, was about 200 cases (Kline, 2011), other researchers attributed the sample size to several factors such as the degree of model complexity, the number of parameters, the estimation method used, the amount of missing data, and the statistical power (Kline, 2011; MacCallum et al., 1996).

As far as this study was concerned, the researcher identified 11,420 UK-based exporting SMEs firms. He used the European Commission’s definition of SMEs, namely, enterprises which employ fewer than 250 employees and which have an annual turnover not exceeding EUR 50 million. The databases, which the researcher used in this study, provided financial information and information regarding the employees. In order to determine whether the companies were involved in exporting, the researcher examined whether their profit and loss accounts contained the item “overseas turnover”. From these 11,420 firms, which represents the population, the researcher drew a systematic random initial sample taking one from every three firms (3806 firms); then, he contacted them in order to confirm their eligibility (see criteria for eligibility on p.117). Through this process, the researcher identified that 1043

firms met the criteria which comprised firms in different industries (aerospace, automotive, agriculture, textile, chemicals, industrial supplies, and services). Those firms which defined the eligible sample were contacted through email to complete the online survey. In total, 277 questionnaires were returned out of 1043 distributed online; this represented a response rate of 26.6% of the eligible sample (1043) which the researcher used for further data analysis (Katsikeas et al., 2006).

#### **3.5.4 Unit of Analysis**

De Vaus (1991) stated that the unit, from which data was derived, was termed the unit of analysis. The main aim of this study is to explore the B2B SMEs' use of social media and the effect which social media usage have on their exporting performance. Hence, the researcher chose the firm as the unit of analysis for this study.

#### **3.5.5 Data Collection**

A survey is “a system of collecting information to describe, compare, or explain knowledge, attitude, and behavior” (Fink, 1995, p.1). Surveys include the gathering of data from a large group of people or a population and are used typically as the main source of quantitative data in management research (Remenyi et al., 1998). However, in the social sciences, the use of surveys is linked typically with questionnaires and interviews although surveys can incorporate other methods of data collection such as structured observation, in-depth interviews, and content analysis (Bryman and Burgess, 1994; March, 1982; Robson, 2002).

Surveys can be considered to be a suitable means for obtaining data under the following three circumstances (Bryman, 1989): 1) when the research objectives stipulate the use of quantitative data; 2) when the required data is somewhat specific and recognizable to the participants; and 3) when the researcher has a considerable previous knowledge of the specific issues and the range of responses likely to be received. Compared to other data collection methods, a survey is relatively

inexpensive and is most appropriate for the purpose of collecting data about a relatively large number of variables from a large number of persons. Surveys, using standardized questions, enable the data to be easily aggregated and analysed so that the research results can be generalised to a larger population (Neuman, 2007; Babbie, 2011). According to Marshall (2005), a questionnaire has the advantage of capturing respondents' attitudes and opinions about people, events and phenomena. Moreover, it offers ease of administration in comparison to other strategies, such as experiments, and that ease of administration considers as a crucial advantage for the survey. The following Table 3.3 summarizes the advantages and disadvantages of using a questionnaire as a data collection method.

**Table 3.3: Advantages and Disadvantages of Using a Questionnaire as a Data Collection Method**

| Advantages  | Disadvantages  |
|---|--|
| <ul style="list-style-type: none"> <li>• It is useful in gathering information about attitudes, intention, and motives.</li> <li>• It is helpful in safeguarding participants' privacy since, usually, the participants respond to the questionnaire anonymously.</li> <li>• It is relatively low cost.</li> <li>• Useful in describing the characteristics of a large population.</li> </ul> | <ul style="list-style-type: none"> <li>• The standardization of the questions in order to make them suitable for most of the respondents may not be appropriate to gaining a clear understanding of what the respondents really feel and think.</li> <li>• It is an inflexible tool since it cannot be changed through data collection.</li> <li>• There is a need to ensure that a large number of the sample will respond to the questionnaire.</li> <li>• Sometimes, it is difficult for respondents to recall information to answer some controversial questions.</li> </ul> |

**Sources: McClelland (1994); Wright (2005); Marshall (2005); Robson (2002); Saunders et al. (2009)**

Data collection using questionnaires can be conducted by several methods: namely, self-administrated surveys; telephone-administrated surveys; and web-based surveys (Hair, 2003). The researcher did not use personal interviews for the main study because of money, time, and the geographical distribution of the population. He excluded, also, telephone interviews because the questionnaire, used in this research, was not one that could be answered easily through a telephone interview.



The Internet may be considered to be another useful tool for data collection by researchers from a variety of disciplines. Conducting an online survey allows the researcher to gain access to groups and individuals who would be not easy to access using the traditional survey channels (Wright, 2005). The researcher chose a web-based survey method through Qualtrics software as the most suitable survey method to collect data for the main study\*. Web-based surveys have been employed widely since the beginning of the 1990s (Hair, 2003). With regard to its comparatively effectiveness in saving cost and time and overcoming geographical constraints, the researcher considered that it was an appropriate method for the context of this study since it was an economical way to reach a population geographically scattered across the UK. Additionally, the web-based survey allowed the researcher to auto-record the data and converted it to an SPSS file. This type of technology generated an auto-updated spreadsheet every time a respondent completed the questionnaire (Hair et al., 2000). Hence, this automation process reduced the data entry time along with the errors arising from human entries (Griffis et al., 2003). For emailing links to the sample, the researcher chose the library where the contacts were located and selected the appropriate contact list and, hence, decided to send emails to the entire contact list by choosing send now. Invitation from Strathclyde University was chosen as a subject for the email. Finally, an email invitation message was attached to the site to complete the survey online.

With these valuable advantages, as with any other data collection method, the online survey is not without certain limitations. Little may be known about the characteristics of the online communities, the self-selection bias, and the accessibility problem since, usually, the access to the potential respondents can be achieved by posting an invitation either in chat rooms, discussion groups, e-mail groups, or community boards. This can be considered by members of online communities to be inappropriate (McClelland, 1994). However, although the researcher used the online survey as the data collection method for the main study according to the aforementioned advantages, he did not incorporate the previous approach regarding

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\* Qualtrics is web based software that allows the user to create surveys and generate reports of results which can be downloaded without having any previous programming knowledge. Qualtrics allows sharing surveys and results as well as collaborating with other users.

posting invitations through chat rooms, discussion groups, email groups or community boards, as he contacted these B2B SMEs firms' managers directly by sending e-mails inviting them to participate in this research.

### **3.5.6 Questionnaire Design**

Webb (2000) stated that the initial considerations to be borne in mind when starting to design the questionnaire are: the type of information required the target respondents; and the means by which the questionnaire will be administered. During the construction of questionnaires, a number of factors must be considered including the content and wording of the questions and the structure and composition of the questionnaire itself (Parasuraman et al., 2004; Frazer and Lawley, 2000). Consequently, the researcher kept the questions short and, at the same time, legitimate and avoided, also, sensitive questions in order to reduce the participant's time and effort in completing the questionnaire (Hair et al., 2000; Parasuramana et al., 2004). Additionally, questions were worded precisely in order to avoid complex, ambiguous and leading questions (Hair et al., 2000).

In designing the questionnaire, items were drawn from the literature review and insights from in-depth interviews, the researcher developed a standardised questionnaire to collect data from a large sample of organisations in the UK. A key consideration in questionnaire design is to ensure that the questionnaire meets fully the data requirements to answer the research questions. Please see Appendix E for the design of this study's questionnaire split into four sections. The first section is entitled 'Demographics and General Business Background' and, covering questions 1 to 5, relates to information about the key informants within these firms, e.g. position within the firm, the respondent's functional area, the years of respondent's experience in industry, age of respondent, e-mail addresses of the respondent. Questions 6 to 14 relate to information about the firm, e.g. the firm's industry sector, the firm's primary business, number of employees within the firm, firm's sales turnover, the country markets which this firm exports to, social media platforms used and for how long this firm has used social media.

The second section is named 'Usage Stage of Social Media' and, covering questions 15 to 20, addresses information about factors which affect the B2B SMEs firms' use of social media: Perceived ease of use was measured using six items (Davis, 1989; Agarwal and Prasad, 1999); perceived relative advantage was measured using 7 items (Davis, 1989; Agarwal and Prasad, 1999); observability was measured using three items (Moore and Benbasat, 1991); subjective norms was measured using five items (Fishbein and Ajzen, 1975); innovativeness of the firm was measured using three items (Agarwal and Karahanna, 2000); training was measured by one item which was generated from the in-depth interviews.

The third section is named 'Implementation of Social Media' and, covered by question 21, is concerned with the B2B SMEs firms' use of social media for export purposes which was measured using twelve items generated from related literature and insights from in-depth interviews.

The fourth section is named 'The outcomes of Using Social Media' and includes questions 22 to 27 on the evaluation of the outcomes of the B2B SMEs firms' use of social media for export purposes: the number of international business contacts was measured using one item which was generated from literature and from in-depth interviews; quality of international business contacts was measured using one item which was generated from literature and from in-depth interviews; brand awareness was measured using four items (Aaker, 1996; Keller, 1993); understanding customers' views and preferences was measured by using three items which were generated from related literature and insights from in-depth interviews; understanding competition in different markets was measured by using four items which were generated from related literature and insights from in-depth interviews; and export performance was measured using three items (Raven et al., 1994; Katsikeas et al., 1996). Finally, questions 28 and 29 relate to the two factors which affect the outcomes (implications) of using social media: Cultural adaptation was measured using five items which were generated from related literature and insights from in-depth interviews; customer engagement was measured using ten items (Brodie et al., 2013; Patterson et al., 2006).

With the exception of items related to respondents' demographic and general business backgrounds, the researcher measured the participants' responses based on a 5-point Likert scale ranging from strongly disagree to strongly agree for the usage stage and customer engagement questions. The same 5-point Likert scale range from poor to excellent was deployed for the outcomes (implications) of using social media questions. Finally, the 5-point Likert scale range from not at all to all the time was used to measure the training factor. Churchill and Peter (1984) described how Likert-type scales were formulated from the literature since, typically, they were thought of as more reliable. Prior to distributing the questionnaire, it was necessary for the researcher to pre-test it in order to ensure its reliability (Hair, et al., 2006).

### **3.5.7 Measures**

This section describes the measurement scales that were employed in this study. In order to measure this study's constructs, existing scales were employed mainly according to its high reliability and relevance with the current study. Additionally, some other measures were developed from scratch. In the main study, the researcher asked the participants about their demographic characteristics and, also, about their general business backgrounds. For example, the participants were asked to list the foreign country markets which the firm exported to; how long the firm had used social media platforms; the number of employees within the firm; the social media platforms which the firm was using now, and the industry sector that the firm belongs to.

#### **3.5.7.1 Existing Measures**

- **Perceived Ease of Use:** Measurement of this variable is adopted from (Davis, 1989; Agarwal and Prasad, 1999) using a five-point Likert scale anchored at (1) strongly disagree and (5) strongly agree. It consists of 6 items as following:
- **Perceived Relative Advantage:** Measurement of this variable is adopted from (Davis, 1989; Agarwal and Prasad, 1999) using a five-point Likert scale anchored at (1) strongly disagree and (5) strongly agree. It consists of 7 items.

- Observability:** Measurement of this variable is adopted from (Moore and Benbasat, 1991) using a five-point Likert scale anchored at (1) strongly disagree and (5) strongly agree. It consists of 3 items.
- **Subjective Norms:** Measurement of this variable is adopted from (Fishbein and Ajzen, 1975) using a five-point Likert scale anchored at (1) strongly disagree and (5) strongly agree. It consists of 5 items.
  - **Innovativeness of the Firm:** Measurement of this variable is adopted from (Agarwal and Karahanna, 2000) using a five-point Likert scale anchored at (1) strongly disagree and (5) strongly agree. It consists of 3 items.
  - **Brand Awareness:** Measurement of this variable is adopted from (Aaker, 1996; Rossiter and Percy, 1987; Keller, 1993) using a five-point Likert scale anchored at (1) Poor and (5) Excellent. It contains 4 items.
  - **Export Performance:** Measurement of this variable is adopted from (Raven et al., 1994; Evangelista, 1994; Katsikeas et al., 1996) using a five-point Likert scale anchored at (1) Poor and (5) Excellent. It contains 3 items.
  - **Customer Engagement:** Measurement of this variable is adopted from Brodie et al. (2013), Patterson et al. (2006) using a five-point Likert scale anchored at (1) strongly agrees (5) strongly disagree. It contains 10 items.

### 3.5.7.2 New Measures

The existing literature failed to produce a satisfactory pool of measures to assess. Hence, new measures were developed. The researcher developed from scratch the following four constructs: use of social media; cultural adaptation; understanding customers' views and preferences through social media; and understanding competition in different markets via social media. In addition, the researcher developed the following three variables: number of international business contacts; the quality of international business contacts; and training.

In order to develop these scales, the researcher followed the same process as Churchill (1979). The first step of the scale development (the theoretical importance and existence of the construct) started with defining what the construct was intended

to measure. The in-depth literature review was the initial point for defining the construct and selecting the items included in the scales of each construct.

In the second step, the researcher generated a pool of potential items that sampled the domain of the construct. From this pool of items the new scale was derived. To produce the measures, 10 in-depth interviews were conducted with marketing/export managers matching the profile of the participants (See Appendix D: Interview Guide). Each interview lasted between 45 minutes and one hour. From these 10 interviews, an initial pool of 20 items was generated to measure different constructs.

The next step related to pilot study for pre-testing the proposed questionnaire. This step is recommendable and useful to test the proposed questionnaire and measures. Using a pre-test minimises the problems associated with instruction and design such as response fatigue and misunderstanding (Zikmund, 2003; Sekaran, 2003). It is a beneficial process which reduces flaws and/or complex items (Churchill, 1995). For this stage, the researcher asked the participants to complete the survey and to write their comments on the items. This allowed them the opportunity to express their agreement/disagreement with every item used to measure the defined construct. Additionally, by using open-ended questions, they were asked to identify either specific items to be added which they considered to relate to the construct, or items to be deleted from the questionnaire (Lewis et al., 2005). According to Zikmund (2003), the two key methods of pre-testing are:

- 1- Evaluation of the questionnaire by a committee of experts; and
- 2- A trial run with representatives from the population pool.

For pre-testing this questionnaire, the researcher used a convenience sample and conducted personal interviews with 15 marketing managers from the population pool (which considered the second method of Zikmund (2003)'s pre-testing technique), and 3 marketing academics who were experts in the area of social media marketing (which considered the first method of Zikmund (2003)'s pre-testing technique). These interviews resulted in the researcher adding and deleting some items in addition to making some minor modifications regarding the wording on each scale item to generate the purified measures. Through this process 24 items were selected and were included in the final scales.

After developing an amended draft, the researcher carried out a second pre-test by sending the questionnaire to 5 SMEs B2B in the UK. The sample was chosen using convenience sampling; this is an appropriate method for pre-testing because it is cost and time efficient. The responses from the firms showed the areas where the questionnaire was weak in terms of wording of the items and in terms of the sequencing of a few questions. Generally, based on the feedback from the respondents, the researcher revised the questionnaire to provide the final questionnaire prior to the main launch.

The following Table summarizes the previous measures, their definitions, the items and their sources.

**Table 3.4: Thesis Scales**

| <b>Constructs</b>                   | <b>Definition</b>   | <b>Items</b>   | <b>Source</b>                            |
|-------------------------------------|---|--|--|
| <b>Perceived Ease of Use</b>        | The extent to which the individual believes that using a particular system would be easy. | <ul style="list-style-type: none"> <li>• It is easy for me to remember how to perform tasks using the social media platforms.</li> <li>• I believe that it is easy to get social media sites to do what I want them to do.</li> <li>• My interaction with social media sites for exporting efforts is easy and understandable.</li> <li>• I find social networks sites flexible to interact with.</li> <li>• It is easy for me to become skilful at using social networks for exporting efforts.</li> <li>• Overall, I believe that social media sites are easy to use for marketing to other companies.</li> </ul>  | Davis (1989); Agarwal and Prasad (1999). |
| <b>Perceived Relative Advantage</b> | The degree to which an innovation was perceived as being better than its antecedents.     | <ul style="list-style-type: none"> <li>• Using social media sites enables me to accomplish exporting efforts more quickly.</li> <li>• Using social media sites improves our exporting performance.</li> <li>• Using social media sites gives me greater control over my international social interactions.</li> <li>• Using social media sites improves the quality of the firm's exporting activities.</li> <li>• By using social media, our firm would find it more effective in exporting efforts.</li> <li>• Using social media sites allows me to accomplish more exporting work that would otherwise be possible.</li> <li>• Overall, I find using social media</li> </ul> | Davis (1989); Agarwal and Prasad (1999). |

| <b>Constructs</b>                 | <b>Definition</b>  | <b>Items</b>   | <b>Source</b>                 |
|-----------------------------------|--|--|-------------------------------|
|                                   |  | sites will be advantageous to my company.  |                               |
| <b>Observability</b>              | The extent to which the results of an innovation may be observed.  | <ul style="list-style-type: none"> <li>• I have seen social media in use outside my company.</li> <li>• It is easy for me to observe others using social media outside my company.</li> <li>• There are plenty of opportunities to see others using social media.</li> </ul>   | Moore and Benbasat (1991).    |
| <b>Subjective Norms</b>           | A person's perception that most people who are important to him think he should or should not perform the behaviour in question.                       | <ul style="list-style-type: none"> <li>• Most people who are important to our company (stakeholders) think that we should use social media sites.</li> <li>• It is expected that companies like ours should use social media sites.</li> <li>• Companies like ours think that we will benefit from social media in our company.</li> <li>• Our competitors use social media sites.</li> <li>• Our customers use social media sites.</li> </ul>   | Fishbein and Ajzen (1975).    |
| <b>Innovativeness of the Firm</b> | The organisation's orientation to promote new ideas, novelty, and creative processes leading to new and innovative products, technology, or processes. | <ul style="list-style-type: none"> <li>• If our firm heard about a new information technology, it would look for ways to experiment with it.</li> <li>• Among our peers, our company is usually the first to try out new information technologies.</li> <li>• Overall, our company likes to experiment with new information technologies.</li> </ul>   | Agarwal and Karahanna (2000). |
| <b>Training</b>                   | The option for formal and informal learning including regular training programs, conferences, webinars, and industry articles.                         | <ul style="list-style-type: none"> <li>• Training for using social media through regular training programs/sessions, aggregate and share external conferences, webinars, and industry articles.</li> </ul>   | New scale.                    |
| <b>Social Media Use</b>           | A person's actual use of an information technology (social media).   | <ul style="list-style-type: none"> <li>• We use social media to generate leads abroad.</li> <li>• We use social media to sustain our relationships with our present customers.</li> <li>• We use social media to strength our relationships with our present customers.</li> <li>• We are unsure how to make the best out of social media.</li> <li>• Social media is a channel through which we collect intelligence on the needs of customers abroad.</li> <li>• We keep our eyes on what international customers have to say for us in various social media platforms.</li> <li>• Every social media initiative we</li> </ul> | New scale.                    |



| <b>Constructs</b>                                     | <b>Definition</b>   | <b>Items</b>   | <b>Source</b>   |
|---|---|--|---|
|   |   | <p>launch abroad has very clear objectives to serve and meet.</p> <ul style="list-style-type: none"> <li>• We actively seek to have international customers engaged with our social media initiatives.</li> <li>• We have revised aspects of our exporting strategy based on the intelligence we generated through social media.</li> <li>• We have revised aspects of our exporting tactics based on the intelligence we generated through social media.</li> <li>• Every social media initiative we launch abroad has very clear criteria against which it is evaluated.</li> <li>• We very rarely evaluate the social media initiative we launch abroad.</li> </ul> |   |
| <b>Number of international Business Contacts</b>      | The scope of firm's international contacts and networking.  | <ul style="list-style-type: none"> <li>• Establishing expanding contacts with business customers abroad.</li> </ul>  | New scale.  |
| <b>Quality of International Business Contacts</b>     | Qualified perspective which considered as the most attractive potential international customers who fit the firm's needs. | <ul style="list-style-type: none"> <li>• Reaching the top quality international business contacts.</li> </ul>  | New scale.  |
| <b>Brand Awareness</b>                                | The business customer's ability to recognize and recall the brand under different conditions.                             | <ul style="list-style-type: none"> <li>• Recognizing your company/brand among other competing companies/brands in social media.</li> <li>• Making your company/brand comes to the minds of your business customers.</li> <li>• Making your business customers know what your brand stands for (brand knowledge).</li> <li>• Making your business customers have an opinion about your brand (brand opinion).</li> </ul>  | Aaker (1996); Rossiter and Percy (1987); Keller (1993). |
| <b>Understanding Customers' views and Preferences</b> | Knowledge about customers 'opinions and viewpoints in relation to the firm and its products, their needs and preferences. | <ul style="list-style-type: none"> <li>• Understanding what customers say about your firm, its products.</li> <li>• Understanding the preferences of your international B2B customers.</li> <li>• Monitoring the experience of doing business with our existing customers that are discussed in different social media platforms.</li> </ul>   | New scale.  |
| <b>Understanding Competition in Different Markets</b> | Knowledge about competitors' habits and firm's industry trends in different markets.                                      | <ul style="list-style-type: none"> <li>• Gaining insights into different markets 'trends.</li> <li>• Gaining insights into your competitors' strengths and weaknesses comparing to your company.</li> <li>• Gaining insights into your competitors' strategy changes.</li> </ul>   | New scale.  |

| Constructs                 | Definition  | Items   | Source  |
|----------------------------|---|---|---|
|                            |   | <ul style="list-style-type: none"> <li>• Forecasting your competitors' future plans.</li> </ul>   |   |
| <b>Export Performance</b>  | The outcomes from the firm's international activities.  | <ul style="list-style-type: none"> <li>• Contribution of social media to the overall profit of your company.</li> <li>• Contribution of social media to the market share.</li> <li>• Contribution of social media to the export sales.</li> </ul>   | Raven et al. (1994); Evangelista (1994); Katsikeas et al. (1996). |
| <b>Cultural Adaptation</b> | Systematic modification of marketing strategy to consider language, culture, and context in such a way that it is compatible with the customer's cultural patterns, meanings, and values. | <ul style="list-style-type: none"> <li>• We translate the body of our social media messages into the local language.</li> <li>• We adjust the timing, tone, and content of our social media messages to better appeal to the target audience in the local markets.</li> <li>• We adapt the social media messages as we learn more about the local culture and values.</li> <li>• We adjust the social media messages according to local laws, rules, and customs.</li> <li>• We seek to adjust our social media strategy to make it more attractive to the target audience in the local markets.</li> </ul>   | New scale.  |
| <b>Customer Engagement</b> | A psychological state that occurs by virtue of interactive, cocreative customer experiences with a focal agent/object.  | <ul style="list-style-type: none"> <li>• I have found that my customers can continue using this online social platform for very long periods at a time.</li> <li>• I have found that my customers devote a lot of energy to this online social platform.</li> <li>• I have found that my customers usually try very hard to perform well on this online social platform.</li> <li>• I get non-distracted attention of my customers when interacting through this online social platform.</li> <li>• I feel that my customers are immersed in this online social platform.</li> <li>• I have noticed that my customers pay a lot of attention to this online social platform.</li> <li>• I find my customers enthusiastic when using this online social platform.</li> <li>• My customers find this online social media platform meaningful and purposeful.</li> <li>• I find my customers excited when using this online social platform.</li> <li>• My customers are generally interested in this online social platform.</li> </ul> | Brodie et al. (2013); Patterson et al. (2006).                    |

### 3.5.8 Questionnaire Administration

The main survey was conducted between March and November 2014. Prior to sending the surveys, the researcher telephoned the sample firms. These calls were done to:

- Confirm that the firm met the criteria of the firm to be included in the sample; and
- Confirm the key informants in the firms to whom the surveys needed to be addressed.

These telephone calls helped the researcher to re-introduce him and what the research was about before sending detailed emails attached to the site to complete the survey online by using Qualtrics software. This made it easier for the researcher to call again and to remind the participants to complete the surveys if they had not already done so. Although this was a time-consuming task and, in many cases, the researcher was unable to contact the participants on the first occasion due to that these managers either being busy in meetings, or away, it offered the opportunity to raise the response rate. A total of 277 responses were received with a response rate of 26.6% out of 1043 eligible firms (Katsikeas et al., 2006).

As a result of using sampling, non-response bias might be a problem. Non response bias refers to the difference between the answers from respondents and non-respondents. Thus, in order to check the potential for any non-response bias, the researcher assumed that non-respondents were more like those who delayed in responding than early respondents and he compared those early respondents with those late respondents (De Valck et al., 2007). Hence, in certain characteristics, if there was no significant difference between people who responded late and people who responded early, it was unlikely that non-respondents differed significantly from the respondents.

In order to detect non-response bias, the researcher conducted an independent samples t-test for the difference of means between the groups to determine whether significant differences existed between the two groups [the first third of the respondents (the first 92 respondents)], and [the last third of the respondents (the last 92 respondents)] for the research's constructs as a common practice (Karahanna et

al., 2006; Armstrong and Overton, 1977). The results did not confirm statistically significant differences amongst the early and late respondents and, therefore, the results indicated that respondents did not differ from non-respondents. As a result, a non-response bias was not regarded as a significant limitation in this research survey (See Appendix F).

### **3.6 Chapter Summary**

This chapter discussed in detail the research philosophy, research approach, research methods and the research design. The post-positivism philosophy was the appropriate paradigm and, accordingly, the research approach related to this position and the resultant procedure illustrated and discussed. The next chapter discusses the descriptive data analysis, data screening and the measurement and structure model analysis.

# **CHAPTER FOUR: DATA ANALYSIS**

# CHAPTER FOUR

## DATA ANALYSIS

### 4.1 Introduction

This chapter presents the analysis of the data collected from the questionnaire. The first section contains the preliminary analysis of the respondents' profiles and of the scale scores along with data screening for some issues such as missing data, outliers, normality and multicollinearity. The second section presents the Common Method Variance (CMV). The third section illustrates the psychometric qualities of the constructs by assessing the validity and reliability of the measures. The fourth section reports the results of assessing the relationships proposed in this study. The final section investigates the moderation effects of: experience of using social media; size of the firm; number of countries which the firm exports to; and the type of industry (manufacturing or services) which the firm belongs to.

### 4.2 Preliminary Analysis

The researcher analysed the Quantitative data obtained from the survey questionnaire by using the Statistical Package for Social Sciences (SPSS; v17.0). This is an established statistical package commonly used in the fields of information systems research, social sciences and business studies (Zikmund, 2003). Therefore, the researcher used this tool to perform descriptive statistics such as frequencies, percentages, mean values and standard deviations. These analyses were performed separately for each variable within the study (Sekaran, 2000). In addition, the researcher used the SPSS to screen data for some issues such as checking of missing data; used the Mahalanobis Distance ( $D^2$ ) test to identify outliers; and used kurtosis and skewness statistics to find out the normality of the data, and finally multicollinearity.

### 4.2.1 Respondents Profile

This section focuses on providing general information about the respondents and the participant firms and, therefore, aims to provide brief insights of the profile of the sample used in this study. The researcher used frequency analysis to distribute the participating companies according to the following criteria:

- Position in organisation;
- Functional area;
- Personal experience in the industry;
- Age of respondents;
- Type of industry;
- Number of employees;
- Annual turnover of the firms;
- Foreign country markets which the firm exports to;
- Social networking sites used by firms; and
- Years of using social networking sites for marketing purposes.

### Respondents Position in Organisation

Table 4.1: Respondents by Position

| Category          | Frequency | Percent |
|-------------------|-----------|---------|
| Upper Management  | 116       | 41.9    |
| Middle Management | 147       | 53.1    |
| Owner             | 14        | 5.1     |
| Total             | 277       | 100.0   |

Table 4.1 reveals that 41.9% of the respondents to this survey were in upper management positions, 53.1% were in middle management positions and only 5.1% were owners of the firms.

### Respondents Functional Area

Table 4.2: Respondents by Functional Area

| Category         | Frequency | Percent |
|------------------|-----------|---------|
| Marketing/ Sales | 221       | 79.8    |
| Exporting        | 56        | 20.2    |
| Total            | 277       | 100.0   |

Table 4.2 indicates that more than half (79.8%) of the respondents to this survey held the position of the firm's Marketing & Sales manager. On the other hand, 20.2% held the position of exporting manager.

From Table 4.2 and Table 4.1, it is clear that, although participants were from marketing and exporting functional areas, they came in a good mixture of hierarchical positions; this allowed the research to capture the respondents' views independently of the position they belonged to.

### **Respondents Years of Experience in Industry**

**Table 4.3: Respondents by Years of Experience in Industry**

| <b>Category</b>           | <b>Frequency</b> | <b>Percent</b> |
|---------------------------|------------------|----------------|
| <b>Less than 10</b>       | 123              | 44.4           |
| <b>10 to less than 20</b> | 102              | 36.8           |
| <b>20 to less than 30</b> | 39               | 14.1           |
| <b>30 to less than 40</b> | 9                | 3.2            |
| <b>40 less than 50</b>    | 3                | 1.1            |
| <b>More than 50</b>       | 1                | 0.4            |
| <b>Total</b>              | 277              | 100.0          |

Table 4.3 indicates that 44.4% of the sample had less than 10 years' experience in their industry; 36.8% from 10-20 years; 14.1% from 20-30 years; 3.2% from 30-40 years; 1.1% from 40-50 years; and, finally, 0.4% had more than 50 years' experience. It is clear that the majority of the respondents (81%) had less than 20 years of experience in their industry; however, around 20% of them had more than 20 years of experience in their industry.

### **Respondents Age**

**Table 4.4: Respondents by Age**

| <b>Category</b>           | <b>Frequency</b> | <b>Percent</b> |
|---------------------------|------------------|----------------|
| <b>Less than 20</b>       | 1                | 0.4            |
| <b>20 to less than 30</b> | 73               | 26.4           |
| <b>30 to less than 40</b> | 107              | 38.6           |
| <b>40 to less than 50</b> | 61               | 22.0           |
| <b>50 and more</b>        | 35               | 12.6           |
| <b>Total</b>              | 277              | 100.0          |

Table 4.4 shows that only 0.4% of the respondents were aged less than 20 years; 26.4% were between 20 to less than 30 years; 38.6% were between 30 to less than 40



years; 22% were from 40 to less than 50 years; and the remaining 12.6% were more than 50 years old. This means that more than half of the respondents were less than 40 years old and the remaining were more than 40 years old; this allowed the research to illustrate a good mixture of respondents' views.

### **Firms Type of Industry**

**Table 4.5: Respondents by Industry Type**

| <b>Category</b>      | <b>Frequency</b> | <b>Percent</b> |
|----------------------|------------------|----------------|
| <b>Manufacturing</b> | 148              | 53.4           |
| <b>Service</b>       | 129              | 46.6           |
| <b>Total</b>         | 277              | 100.0          |

Table 4.5 shows that 53.4% of firms were in the manufacturing industry and 46.6% were in the service industry; this illustrated that the respondents came from a properly mixture of industry type.

### **Firms by Number of Employees**

**Table 4.6: Respondents by Number of Employees**

| <b>Category</b>             | <b>Frequency</b> | <b>Percent</b> |
|-----------------------------|------------------|----------------|
| <b>Less than 50</b>         | 115              | 41.5           |
| <b>50 to less than 100</b>  | 61               | 22.0           |
| <b>100 to less than 150</b> | 62               | 22.4           |
| <b>150 to 250</b>           | 39               | 14.1           |
| <b>Total</b>                | 277              | 100.0          |

Table 4.6 illustrates that 41.5% of the sample fell into the category of less than 50 employees; 22% had from 50 to less than 100 employees; 22.4% fell into the category from 100 to less than 150 employees; and only 14.1% fell into the category of 150-250 employees. Hence, it is clear that the respondents came from a good mixture of both small and medium sized firms.

### **Firms by Annual Turnover**

**Table 4.7: Respondents by Annual Turnover**

| <b>Category</b>                       | <b>Frequency</b> | <b>Percent</b> |
|---------------------------------------|------------------|----------------|
| <b>less than £100.000</b>             | 16               | 5.8            |
| <b>£100.000 to less than £500.000</b> | 37               | 13.4           |
| <b>£500.000 to less than £1M</b>      | 29               | 10.5           |
| <b>£1M to less than £5M</b>           | 66               | 23.8           |
| <b>£5M to less than £10M</b>          | 61               | 22.0           |
| <b>£10M to £40M</b>                   | 68               | 24.5           |
| <b>Total</b>                          | 277              | 100.0          |

As shown in Table 4.7, 5.8% of the firms fell into the category of having a turnover of less than £100.000; 13.4% fell into the category from £100.000 to less than £500.000; 10.5% from £500.000 to less than £1M; 23.8% from £1M to less than £5M; 22% from £5M to less than £10M; and, finally, 24.5% from £10M to £40M.

### **Foreign Country Markets that the Firms Export to**

**Table 4.8: Foreign Country Markets Firm Exports to**

| <b>Category</b> | <b>Frequency</b> | <b>Percent</b> |
|-----------------|------------------|----------------|
| <b>Europe</b>   | 63               | 22.7           |
| <b>Asia</b>     | 15               | 5.4            |
| <b>America</b>  | 17               | 6.1            |
| <b>Africa</b>   | 3                | 1.1            |
| <b>Multi</b>    | 179              | 64.6           |
| <b>Total</b>    | 277              | 100.0          |

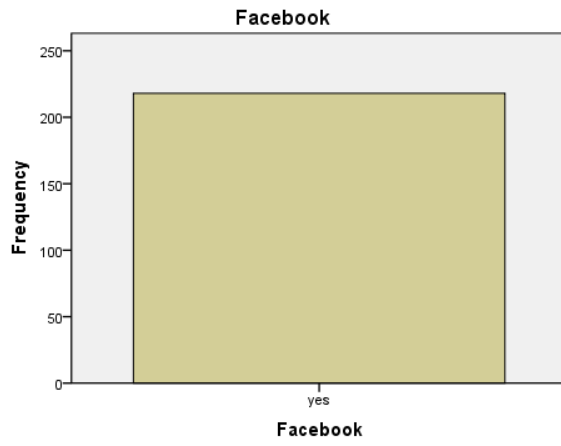
As shown in Table 4.8, 22.7% of the firms exported to Europe; 5.4% exported to Asia; 6.1% to America; 1.1% to Africa; and 64.6% exported to more than one country. It is clear that more than half of the firms (65%) dealt with different foreign country markets; this helped in capturing different views of participants regarding adjusting for cultural differences.

### **Social Networking Sites used by Firms**

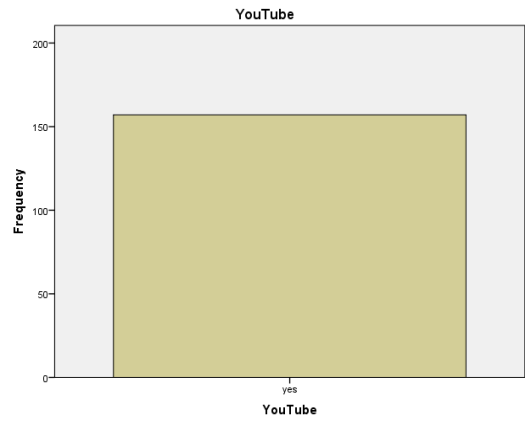
**Table 4.9: SNSs Used by Firms**

| <b>Social Networking Sites</b> | <b>Frequency</b> | <b>Percentage</b> |
|--------------------------------|------------------|-------------------|
| <b>Facebook</b>                | 218              | 78.7              |
| <b>LinkedIn</b>                | 180              | 65.0              |
| <b>Twitter</b>                 | 219              | 79.1              |
| <b>YouTube</b>                 | 157              | 56.7              |
| <b>Others</b>                  | 71               | 25.6              |

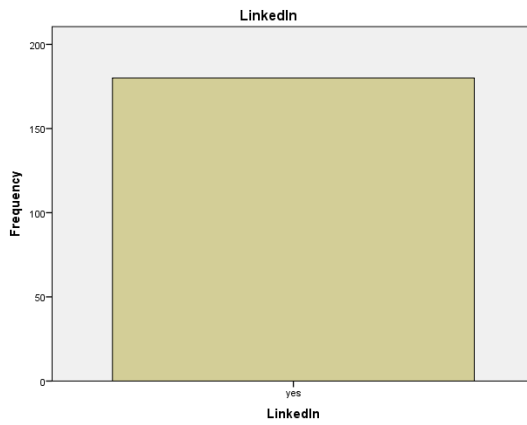
**Figure 4.1: Facebook Used by Firms**



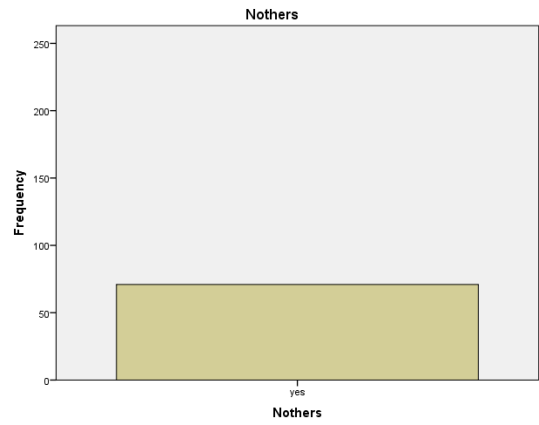
**Figure 4.4: YouTube Used by Firms**



**Figure 4.2: LinkedIn Used by Firms**



**Figure 4.5: Other SNSs Used by Firms**



**Figure 4.3: Twitter Used by Firms**

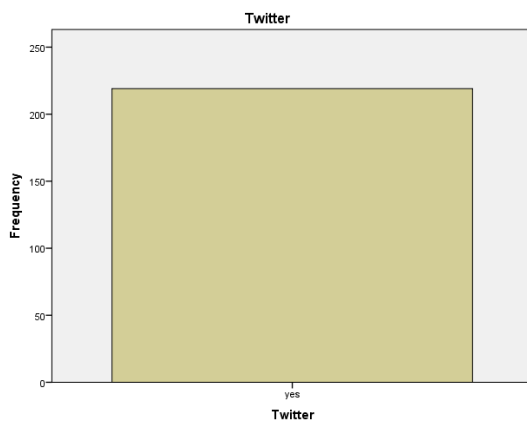


Table 4.9 and Figures 4.1 to 4.5 above show that 218 (78.7%) firms used Facebook; 180 firms (65%) used LinkedIn; 219 firms (79.1%) used Twitter; 157 firms (56.7%) used YouTube; and, finally, 71 firms (25.6%) used other social media platforms. Hence, it is clear that there was a good mixture of social media platforms used by respondents; this helped in capturing their different viewpoints.

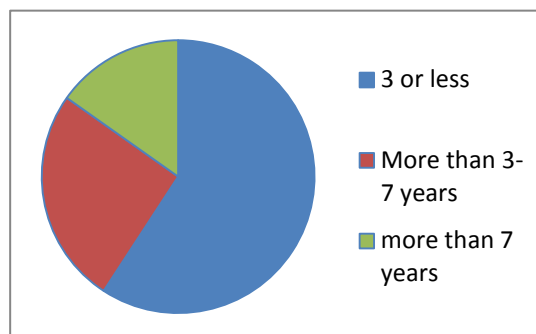
### Years of SNSs Use for Marketing Purposes

**Table 4.10: Firms by SNSs Years of Use**

| Category             | Frequency | Percent |
|----------------------|-----------|---------|
| 3 or less            | 164       | 59.2    |
| More than 3 -7 years | 71        | 25.6    |
| More than 7 years    | 42        | 15.2    |
| Total                | 277       | 100.0   |

Table 4.10 and following Figure 4.6 illustrate that 59.2% of the sample had used the social media platforms for 3 years or less; 25.6% had used them from more than 3 to 7 years; and 15.2% had used them for more than 7 years. Thus, it is clear that more than half of the respondents (59%) had low experience in using different social media platforms as they used them for 3 years or less.

**Figure 4.6: Firms by SNSs Years of Use**



### 4.2.2 Descriptive Statistics of Scale Scores

This section presents the descriptive statistics of the survey constructs. Table 4.11 illustrates the results of the respondents' ratings of each item of the constructs based on their mean and standard deviation. On the one hand, the researcher measured the constructs of: Perceived Ease of Use (PEOU), Perceived Relative Advantage (PRA), Observability (OBSERV), Subjective Norms (SN), Innovativeness of the Firm

(INNOV), Social Media Use (SMUSE), and Customer Engagement (CE) by using a five-point Likert scale ranging from ‘Strongly disagree’ (Item scale point 1) and ‘Strongly agree’ (Item scale point 5). On the other hand, the researcher measured the items for Training (TRAIN) and Cultural Adaptation (CA) on a five-point Likert scale ranging from ‘Not at all’ (Item scale point 1) and ‘All the time’ (Item scale point 5). Finally, the researcher measured responses to the items for the: Number of International Business Contacts (NOIBC), Quality of International Business Contacts (QOIBC), Brand Awareness (BA), Understanding Customers’ Views and Preferences (UCUST), Understanding Competition in Different Markets (UCOMP), and Export Performance (EXP), on a five-point Likert scale ranging from ‘Poor’ (Item scale point 1) and ‘Excellent’ (Item scale point 5).

**Table 4.11: Descriptive Statistics of Scale Scores**

| Items  | Mean  | Std. Deviation |
|--|-------|----------------|
| <b>Perceived Ease of Use</b>   |       |                |
| It is easy for me to remember how to perform tasks using the social media platforms. <b>(PEOU1)</b>                  | 3.953 | 0.781          |
| I believe that it is easy to get social media sites to do what I want them to do. <b>(PEOU2)</b>                     | 3.830 | 0.853          |
| My interaction with social media sites for exporting efforts is easy and understandable. <b>(PEOU3)</b>              | 3.819 | 0.819          |
| I find social networks sites flexible to interact with. <b>(PEOU4)</b>   | 3.949 | 0.862          |
| It is easy for me to become skillful at using social networks for exporting efforts. <b>(PEOU5)</b>                  | 3.787 | 0.886          |
| Overall, I believe that social media sites are easy to use for marketing to other companies. <b>(PEOU6)</b>          | 3.960 | 0.857          |
| <b>Perceived Relative Advantage</b>  |       |                |
| Using social media sites enables me to accomplish exporting efforts more quickly. <b>(PRA1)</b>                      | 3.527 | 0.899          |
| Using social media sites improves our exporting performance. <b>(PRA2)</b>   | 3.614 | 0.912          |
| Using social media sites gives me greater control over my international social interactions. <b>(PRA3)</b>           | 3.708 | 0.828          |
| Using social media sites improves the quality of the firm's exporting activities. <b>(PRA4)</b>                      | 3.502 | 0.923          |
| By using social media, our firm would find it more effective in exporting efforts. <b>(PRA5)</b>                     | 3.570 | 0.901          |
| Using social media sites allows me to accomplish more exporting work that would otherwise be possible. <b>(PRA6)</b> | 3.563 | 0.971          |
| Overall, I find using social media sites will be advantageous to my company. <b>(PRA7)</b>                           | 4.047 | 0.703          |
| <b>Observability</b>   |       |                |
| I have seen social media in use outside my company. <b>(OBSERV1)</b>   | 4.394 | 0.608          |
| It is easy for me to observe others using social media outside my company. <b>(OBSERV2)</b>                          | 4.191 | 0.709          |
| There are plenty of opportunities to see others using social media. <b>(OBSERV3)</b>                                 | 4.259 | 0.700          |
| <b>Subjective Norms</b>  |       |                |

|   |       |       |
|---|-------|-------|
| Most people who are important to our company (stakeholders) think that we should use social media sites. (SN1)  | 3.755 | 0.895 |
| It is expected that companies like ours should use social media sites. (SN2)  | 3.949 | 0.903 |
| Companies like ours think that we will benefit from social media in our company. (SN3)  | 4.018 | 0.759 |
| Our competitors use social media sites. (SN4)   | 4.126 | 0.698 |
| Our customers use social media sites. (SN5)   | 4.123 | 0.664 |
| <b>Innovativeness of the Firm</b>   |       |       |
| If our firm heard about a new information technology, it would look for ways to experiment with it. (INNOV1)  | 3.931 | 0.816 |
| Among our peers, our company is usually the first to try out new information technologies. (INNOV2)   | 3.469 | 0.995 |
| Overall, our company likes to experiment with new information technologies. (INNOV3)  | 3.838 | 0.876 |
| Training for using social media through regular training programs/sessions, aggregate and shared external conferences, webinars, and industry articles. <b>Training (TRAIN)</b> | 3.003 | 1.134 |
| <b>Social Media Use</b>   |       |       |
| We use social media to generate leads abroad. (SMUSE1)  | 4.155 | 0.382 |
| We use social media to sustain our relationships with our present customers. (SMUSE2)   | 3.928 | 0.835 |
| We use social media to strength our relationships with our present customers. (SMUSE3)  | 3.928 | 0.818 |
| We are unsure how to make the best out of social media. (SMUSE4)  | 3.184 | 1.045 |
| Social media is a channel through which we collect intelligence on the needs of customers abroad. (SMUSE5)  | 4.130 | 0.396 |
| We keep our eyes on what international customers have to say for us in various social media platforms. (SMUSE6)   | 3.819 | 0.874 |
| Every social media initiative we launch abroad has very clear objectives to serve and meet. (SMUSE7)  | 3.531 | 0.961 |
| We actively seek to have international customers engaged with our social media initiatives. (SMUSE8)  | 3.751 | 0.909 |
| We have revised aspects of our exporting strategy based on the intelligence we generated through social media. (SMUSE9)   | 3.227 | 1.051 |
| We have revised aspects of our exporting tactics based on the intelligence we generated through social media. (SMUSE10)   | 3.278 | 1.093 |
| Every social media initiative we launch abroad has very clear criteria against which it is evaluated. (SMUSE11)   | 3.311 | 1.009 |
| We very rarely evaluate the social media initiative we launch abroad. (SMUSE12)   | 2.877 | 0.934 |
| Establishing expanding contacts with business customers abroad. <b>Number of International Business Contacts (NOIBC)</b>  | 3.177 | 1.043 |
| Reaching the top quality international business contacts. <b>Quality of International Business Contacts (QOIBC)</b>   | 3.130 | 1.041 |
| <b>Brand Awareness</b>  |       |       |
| Recognizing your company/brand among other competing companies/brands in social media. (BA1)  | 3.462 | 0.942 |
| Making your company/brand comes to the minds of your business customers. (BA2)  | 3.455 | 0.953 |
| “Making your business customers know what your brand stands for (brand knowledge)”. (BA3)   | 3.448 | 1.005 |
| Making your business customers have an opinion about your brand (brand opinion). (BA4)  | 3.408 | 1.012 |
| <b>Understanding Customers’ Views and Preferences</b>   |       |       |
| Understanding what customers say about your firm, its products. (UCUST1)  | 3.311 | 0.995 |

|  |       |       |
|--|-------|-------|
| Understanding the preferences of your international B2B customers. (UCUST2)  | 3.259 | 1.048 |
| Monitoring the experience of doing business with our existing customers that are discussed in different social media platforms. (UCUST3) | 3.202 | 1.054 |
| <b>Understanding Competition in Different Markets</b>  |       |       |
| Gaining insights into different markets 'trends. (UCOMP1)  | 3.401 | 1.000 |
| Gaining insights into your competitors' strengths and weaknesses comparing to your company. (UCOMP2)                                     | 3.296 | 0.978 |
| Gaining insights into your competitors' strategy changes. (UCOMP3)   | 3.227 | 1.026 |
| Forecasting your competitors' future plans. (UCOMP4)   | 2.986 | 1.077 |
| <b>Export Performance</b>  |       |       |
| Contribution of social media to the overall profit of your company. (EXP1)   | 2.978 | 1.126 |
| Contribution of social media to the market share. (EXP2)   | 2.982 | 1.072 |
| Contribution of social media to the export sales. (EXP3)   | 2.975 | 1.095 |
| <b>Cultural Differences</b>  |       |       |
| We translate the body of our social media messages into the local language. (CA1)  | 3.001 | 1.154 |
| We adjust the timing, tone, and content of our social media messages to better appeal to the target audience in the local markets. (CA2) | 3.025 | 1.105 |
| We adapt the social media messages as we learn more about the local culture and values. (CA3)  | 3.000 | 1.083 |
| We adjust the social media messages according to local laws, rules, and customs. (CA4)   | 3.069 | 1.119 |
| We seek to adjust our social media strategy to make it more attractive to the target audience in the local markets. (CA5)                | 3.141 | 1.122 |
| <b>Customer Engagement</b>   |       |       |
| I have found that my customers can continue using this online social platform for very long periods at a time. (CE1)                     | 3.574 | 0.872 |
| I have found that my customers devote a lot of energy to this online social platform. (CE2)  | 3.462 | 0.976 |
| I have found that my customers usually try very hard to perform well on this online social platform. (CE3)                               | 3.404 | 0.898 |
| I get non-distracted attention of my customers when interacting through this online social platform. (CE4)                               | 3.256 | 0.957 |
| I feel that my customers are immersed in this online social platform. (CE5)  | 3.339 | 0.948 |
| I have noticed that my customers pay a lot of attention to this online social platform. (CE6)  | 3.433 | 0.925 |
| I find my customers enthusiastic when using this online social platform. (CE7)   | 3.513 | 0.879 |
| My customers find this online social media platform meaningful and purposeful. (CE8)   | 3.563 | 0.893 |
| I find my customers excited when using this online social platform. (CE9)  | 3.426 | 0.904 |
| My customers are generally interested in this online social platform. (CE10)   | 3.653 | 0.886 |

Table 4.11 shows that variables mean ranged within the scale midpoint and above given that 5–point Likert type scales were used. The lowest mean, 2.877 ( $\pm$ .944), related to SMUSE12 of the social media use construct whereas the highest one, 4.394 ( $\pm$ .608), related to OBSERV1 of the observability construct.

It is an essential part of the preliminary analysis to know the level of correlation in data and to figure out if there is any departure from the linearity that might affect the correlations (Field, 2006). Table 4.12 presents the results of the Bivariate Pearson's correlations between all latent constructs. All latent constructs were positively and significantly correlated with each other ( $P < .01$ ).

**Table 4.12: Correlation Matrix for Latent Constructs**

|        | PEOU                 | PRA                  | OBSERV               | SN                   | INNOV                | SMUSE                | TRAIN                | NOIBC                | QOIBC                | BA                   | UCUST                | UCOMP                | EXP                  | CA                   | CE |
|--------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----|
| PEOU   | 1                    |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |    |
| PRA    | .558 <sup>(**)</sup> | 1                    |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |    |
| OBSERV | .315 <sup>(**)</sup> | .192 <sup>(**)</sup> | 1                    |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |    |
| SN     | .515 <sup>(**)</sup> | .462 <sup>(**)</sup> | .446 <sup>(**)</sup> | 1                    |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |    |
| INNOV  | .490 <sup>(**)</sup> | .549 <sup>(**)</sup> | .249 <sup>(**)</sup> | .468 <sup>(**)</sup> | 1                    |                      |                      |                      |                      |                      |                      |                      |                      |                      |    |
| SMUSE  | .584 <sup>(**)</sup> | .711 <sup>(**)</sup> | .286 <sup>(**)</sup> | .541 <sup>(**)</sup> | .584 <sup>(**)</sup> | 1                    |                      |                      |                      |                      |                      |                      |                      |                      |    |
| TRAIN  | .414 <sup>(**)</sup> | .477 <sup>(**)</sup> | .259 <sup>(**)</sup> | .402 <sup>(**)</sup> | .413 <sup>(**)</sup> | .453 <sup>(**)</sup> | 1                    |                      |                      |                      |                      |                      |                      |                      |    |
| NOIBC  | .375 <sup>(**)</sup> | .396 <sup>(**)</sup> | .222 <sup>(**)</sup> | .371 <sup>(**)</sup> | .414 <sup>(**)</sup> | .387 <sup>(**)</sup> | .632 <sup>(**)</sup> | 1                    |                      |                      |                      |                      |                      |                      |    |
| QOIBC  | .517 <sup>(**)</sup> | .521 <sup>(**)</sup> | .262 <sup>(**)</sup> | .439 <sup>(**)</sup> | .440 <sup>(**)</sup> | .474 <sup>(**)</sup> | .628 <sup>(**)</sup> | .760 <sup>(**)</sup> | 1                    |                      |                      |                      |                      |                      |    |
| BA     | .583 <sup>(**)</sup> | .570 <sup>(**)</sup> | .269 <sup>(**)</sup> | .518 <sup>(**)</sup> | .572 <sup>(**)</sup> | .668 <sup>(**)</sup> | .443 <sup>(**)</sup> | .450 <sup>(**)</sup> | .518 <sup>(**)</sup> | 1                    |                      |                      |                      |                      |    |
| UCUST  | .589 <sup>(**)</sup> | .661 <sup>(**)</sup> | .234 <sup>(**)</sup> | .488 <sup>(**)</sup> | .552 <sup>(**)</sup> | .665 <sup>(**)</sup> | .430 <sup>(**)</sup> | .384 <sup>(**)</sup> | .491 <sup>(**)</sup> | .810 <sup>(**)</sup> | 1                    |                      |                      |                      |    |
| UCOMP  | .573 <sup>(**)</sup> | .602 <sup>(**)</sup> | .178 <sup>(**)</sup> | .456 <sup>(**)</sup> | .551 <sup>(**)</sup> | .581 <sup>(**)</sup> | .461 <sup>(**)</sup> | .421 <sup>(**)</sup> | .529 <sup>(**)</sup> | .751 <sup>(**)</sup> | .777 <sup>(**)</sup> | 1                    |                      |                      |    |
| EXP    | .556 <sup>(**)</sup> | .751 <sup>(**)</sup> | .121 <sup>(*)</sup>  | .444 <sup>(**)</sup> | .587 <sup>(**)</sup> | .654 <sup>(**)</sup> | .447 <sup>(**)</sup> | .418 <sup>(**)</sup> | .550 <sup>(**)</sup> | .744 <sup>(**)</sup> | .822 <sup>(**)</sup> | .797 <sup>(**)</sup> | 1                    |                      |    |
| CA     | .534 <sup>(**)</sup> | .632 <sup>(**)</sup> | .153 <sup>(*)</sup>  | .378 <sup>(**)</sup> | .518 <sup>(**)</sup> | .638 <sup>(**)</sup> | .549 <sup>(**)</sup> | .416 <sup>(**)</sup> | .518 <sup>(**)</sup> | .672 <sup>(**)</sup> | .720 <sup>(**)</sup> | .694 <sup>(**)</sup> | .754 <sup>(**)</sup> | 1                    |    |
| CE     | .612 <sup>(**)</sup> | .662 <sup>(**)</sup> | .201 <sup>(**)</sup> | .505 <sup>(**)</sup> | .570 <sup>(**)</sup> | .610 <sup>(**)</sup> | .501 <sup>(**)</sup> | .427 <sup>(**)</sup> | .579 <sup>(**)</sup> | .643 <sup>(**)</sup> | .654 <sup>(**)</sup> | .681 <sup>(**)</sup> | .720 <sup>(**)</sup> | .667 <sup>(**)</sup> | 1  |

<sup>(\*\*)</sup> Correlation is significant at the .01 level (2-tailed)

<sup>(\*)</sup> Correlation is significant at the .05 level (2-tailed)

### 4.2.3 Missing Data

Missing data is one of the crucial problems in data analysis since it has significant effects on reliability, validity and generalizability (Tabachnick and Fidell, 2007). In other words, missing data can affect the statistical power and the accuracy of the estimating parameters (Tsikriktsis, 2005). It was argued that less than 10% of all valid responses ought to be attributable to missing data (Kline, 1998). In order to control the missing data (values), which could arise from errors in data entry or respondents' refusal to answer questions, the researcher used Qualtrics software. This software has an option of not allowing the respondent to proceed to the next question without completing the previous one which allowed for not having missing



values. The researcher followed this procedure along with the well-designed and extensively pretested questionnaire; these results controlled the amount of missing data.

#### **4.2.4 Outliers**

Outliers can be defined as “observations with a unique combination of characteristics identifiable as distinctly different from the other observations” (Hair et al., 2010, p.64). According to Tabachnick and Fidell (2007, p.22) an outlier is “a case with such an extreme value on one variable (a univariate outlier) or such a strange combination of scores on two or more variables (multivariate outlier) that it distorts statistics”. These outliers can result from: incorrect data entries, sampling errors or other observations which the researcher cannot explain (Meyers et al., 2006; Tabachnick and Fidell, 2007; Osborne and Overbay, 2004).

As suggested by Kline (2005) and Hair et al. (2010), the researcher identified the univariate outliers by determining standard scores (Z-scores) of the observed data. It is assumed that any case, which shows a Z-score  $> 3.29$ , is considered to be a potential outlier (Tabachnick and Fidell, 2007). The results illustrate that only one variable (OBSERV1) had standard values exceeding 3.29, which in turn was attributed to just two cases. Cohen et al. (2003, p.128) suggested that “if outliers are few (less than 1% or 2% of n) and not very extreme, they are probably best left alone”. Hence, the two outliers were ignored.

For the multivariate outliers, the researcher used Mahalanobis Distance ( $D^2$ ) for both items and scales; this is a measure of distance of each observation from the mean of all observations (Byrne 2010; Kline, 2005; Hair et al., 2006). As mentioned by Hair et al. (2010, pp.66-67), “observations having  $D^2/df$  value exceeding 2.5 in small samples and 3 or 4 in large samples ( $>200$ ) can be designated as possible outliers”. The multivariate outliers’ results for both items and scales showed that there was no single case with  $D^2$  greater than the critical value mentioned above (See Appendix G and Appendix H).

#### **4.2.5 Normality**

The assessment normality can be conducted on both levels: univariate and multivariate. Meyers et al. (2006, p.67) argued that the “shape of a distribution of continuous variables in a multivariate analysis should correspond to a (univariate) normal distribution”. Accordingly, if variables illustrated univariate normality, there was assumed to be multivariate normality (Meyers et al. 2006; Weston et al., 2008).

Since this normality was considered to be an assumption of multivariate analysis, Hair et al. (2010) argued that, with a small sample size (<50), the significant departure from normality was problematic. However, a small departure from normality was neglected for a sample size >200.

Normality can be examined by calculating skewness and kurtosis statistics. A skewness refers to the degree of symmetry of a distribution around the mean. As for kurtosis, it refers to the measurement of the general peakedness of a distribution. According to Lei and Lomax (2005), the cut-off values for skewness and kurtosis range between the absolute values -2.0 and +3.5. On the other hand, Curran et al. (1996) argued that skewness values of less than 2 and kurtosis values of less than 7 were acceptable cut-off points. The skewness and kurtosis statistics for both items and scales were found within the acceptable level with the exception of SMUSE5 (Items normality) which had a value more than 4. However, according to Curran et al. (1996), this is considered acceptable. Accordingly, no deviation from data normality occurred either for items or scales (See Appendix I and Appendix J).

#### **4.2.6 Multicollinearity**

The multicollinearity assumption is an important element in multivariate analysis. This study's results showed that the correlations coefficients between all variables did not exceed 0.90; this was a critical value for indicating serious multicollinearity issues (Hair et al., 2010; Tabachnick and Fidell, 2007). In addition, the researcher calculated the Variance Inflation Factor (VIF) with tolerance values for the inspection of any multicollinearity problems. As suggested by Hair et al. (2010), a VIF greater than 10 with tolerance less than 0.10 indicated a serious multicollinearity

problem. The results showed that no value exceeded these cut offs. Therefore, the multicollinearity problem did not affect this study (See Appendix K).

### **4.3 Common Method Variance (CMV)**

Common Method Variance (CMV) refers to “the amount of spurious covariance shared among variables because of the common method used in collecting data” (Malhotra et al., 2006, p.1865). Podsakoff et al. (2003) illustrated some sources of CMV such as: Consistency motif- “the propensity for respondents to try to maintain consistency in their responses to questions”; social desirability – “the tendency of some people to respond to items more as a result of their social acceptability than their true feelings”; and knowledge deficiency (p.882). The problem with CMV is that it inflates or deflates the relationship between the independent variable and the dependent variable since it creates unreal internal consistency (Podsakoff et al., 2003; Chang et al., 2010; Donaldson and Grant-Vallone, 2002).

In order to control CMV, Podsakoff et al. (2003) suggested procedural remedies. Accordingly, the researcher conducted careful construction, development and improvement of scale items by pre-testing the questionnaire; these helped to eliminate any ambiguity and vagueness with the questionnaire (Tourangeau et al., 2000). In addition, these remedies protected the respondents’ anonymity and guaranteed the confidentiality of their answers. This reduced the respondents’ apprehension on the evaluation of their answers since the researcher would not know the identity of the respondent who completed the questionnaire (Podsakoff et al., 2003).

In addition to procedural techniques, the researcher used statistical techniques to test if CMV was a problem. He used the two well-established practices to assess the common method variance, namely: Harman’s one-factor test; and the unmeasured latent method factor (Podsakoff et al., 2012; Podsakoff et al., 2003). Harman’s one-factor test examines the possibility that all the variables can be grouped in a common factor by using exploratory factor analysis; this allows the un-rotation solution of these variables (Bliemel and Hassanein, 2006; Podsakoff et al., 2003; Bagozzi,

2011). The main assumption is that “if a substantial amount of common method variance is present, either (a) a single factor will emerge from the factor analysis or (b) one general factor will account for the majority of the covariance among measures” (Podsakoff et al., 2003, p.889).

Table 4.13 illustrates the results of using Harman’s one-factor test; the total variance, explained for the all cases, was below the limit of 50%. This revealed that the CMV did not affect this study.

**Table 4.13: Total Variance Explained**

| Component | Initial Eigenvalues |               |              | Extraction Sums of Squared Loadings |               |              |
|-----------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
|           | Total               | % of Variance | Cumulative % | Total                               | % of Variance | Cumulative % |
| 1         | 31.205              | 45.890        | 45.890       | 31.205                              | 45.890        | 45.890       |
| 2         | 3.872               | 5.694         | 51.584       |                                     |               |              |
| 3         | 2.582               | 3.798         | 55.382       |                                     |               |              |
| 4         | 2.179               | 3.205         | 58.586       |                                     |               |              |
| 5         | 1.903               | 2.798         | 61.385       |                                     |               |              |
| 6         | 1.684               | 2.477         | 63.861       |                                     |               |              |
| 7         | 1.504               | 2.212         | 66.073       |                                     |               |              |
| 8         | 1.351               | 1.987         | 68.060       |                                     |               |              |
| 9         | 1.314               | 1.932         | 69.993       |                                     |               |              |
| 10        | 1.171               | 1.721         | 71.714       |                                     |               |              |
| 11        | 1.026               | 1.508         | 73.222       |                                     |               |              |
| 12        | .966                | 1.420         | 74.642       |                                     |               |              |
| 13        | .931                | 1.369         | 76.011       |                                     |               |              |
| 14        | .821                | 1.208         | 77.219       |                                     |               |              |
| 15        | .728                | 1.070         | 78.289       |                                     |               |              |
| 16        | .661                | .973          | 79.262       |                                     |               |              |
| 17        | .637                | .937          | 80.199       |                                     |               |              |
| 18        | .621                | .913          | 81.112       |                                     |               |              |
| 19        | .583                | .858          | 81.970       |                                     |               |              |
| 20        | .562                | .826          | 82.796       |                                     |               |              |
| 21        | .547                | .805          | 83.600       |                                     |               |              |
| 22        | .519                | .764          | 84.364       |                                     |               |              |
| 23        | .515                | .757          | 85.121       |                                     |               |              |
| 24        | .482                | .709          | 85.830       |                                     |               |              |
| 25        | .471                | .693          | 86.523       |                                     |               |              |
| 26        | .445                | .655          | 87.178       |                                     |               |              |
| 27        | .427                | .628          | 87.806       |                                     |               |              |
| 28        | .412                | .606          | 88.412       |                                     |               |              |
| 29        | .383                | .563          | 88.975       |                                     |               |              |

| Component | Initial Eigenvalues |               |              | Extraction Sums of Squared Loadings |               |              |
|-----------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
|           | Total               | % of Variance | Cumulative % | Total                               | % of Variance | Cumulative % |
| 30        | .369                | .543          | 89.518       |                                     |               |              |
| 31        | .365                | .537          | 90.055       |                                     |               |              |
| 32        | .347                | .511          | 90.565       |                                     |               |              |
| 33        | .330                | .486          | 91.051       |                                     |               |              |
| 34        | .314                | .461          | 91.512       |                                     |               |              |
| 35        | .307                | .451          | 91.963       |                                     |               |              |
| 36        | .291                | .428          | 92.392       |                                     |               |              |
| 37        | .283                | .417          | 92.808       |                                     |               |              |
| 38        | .274                | .404          | 93.212       |                                     |               |              |
| 39        | .270                | .397          | 93.609       |                                     |               |              |
| 40        | .259                | .381          | 93.990       |                                     |               |              |
| 41        | .251                | .368          | 94.358       |                                     |               |              |
| 42        | .240                | .354          | 94.712       |                                     |               |              |
| 43        | .233                | .342          | 95.054       |                                     |               |              |
| 44        | .221                | .324          | 95.378       |                                     |               |              |
| 45        | .217                | .319          | 95.697       |                                     |               |              |
| 46        | .204                | .300          | 95.997       |                                     |               |              |
| 47        | .195                | .286          | 96.283       |                                     |               |              |
| 48        | .188                | .276          | 96.560       |                                     |               |              |
| 49        | .185                | .271          | 96.831       |                                     |               |              |
| 50        | .182                | .267          | 97.098       |                                     |               |              |
| 51        | .171                | .252          | 97.350       |                                     |               |              |
| 52        | .162                | .238          | 97.587       |                                     |               |              |
| 53        | .147                | .216          | 97.803       |                                     |               |              |
| 54        | .145                | .213          | 98.016       |                                     |               |              |
| 55        | .144                | .211          | 98.228       |                                     |               |              |
| 56        | .139                | .205          | 98.432       |                                     |               |              |
| 57        | .121                | .178          | 98.611       |                                     |               |              |
| 58        | .116                | .171          | 98.782       |                                     |               |              |
| 59        | .112                | .165          | 98.947       |                                     |               |              |
| 60        | .102                | .150          | 99.096       |                                     |               |              |
| 61        | .099                | .146          | 99.242       |                                     |               |              |
| 62        | .094                | .138          | 99.380       |                                     |               |              |
| 63        | .086                | .127          | 99.507       |                                     |               |              |
| 64        | .078                | .115          | 99.622       |                                     |               |              |
| 65        | .074                | .109          | 99.731       |                                     |               |              |
| 66        | .072                | .107          | 99.837       |                                     |               |              |
| 67        | .063                | .093          | 99.930       |                                     |               |              |
| 68        | .047                | .070          | 100.000      |                                     |               |              |

Extraction Method: Principal Component Analysis.

Although the previous results illustrated the absence of CMV by using Harman's one-factor test since it provided important indications of whether or not one factor accounts for most of the covariance, it was likely to be affected by the number of examined variables (Podsakoff et al., 2003). Hence, the researcher used another statistical technique along with the previous test which was unmeasured latent method factor. This test allows all indicators, besides loading on their hypothesised constructs, to be loaded on a latent common factor (Podsakoff et al., 2003; Podsakoff et al., 2012; Meade et al., 2007; Chin et al., 2012). This common variable determines the common variance among the observed items. The results showed that the variance extracted from the common latent factor was only 0.07; this was the squared of the constant regression weights of all indicators on the latent common factor ( $.261^2$ ). This fell below the 0.50 value which was suggested to be an indication of the existence of CMV (Cole et al., 2011) (See Appendix L and Appendix M). Accordingly, the CMV did not affect this study. This outcome allowed proceeding to the next stage of the analysis which aimed to assess the psychometric properties of the constructs (scales) employed in this study.

#### **4.4 Psychometric Properties of Different Constructs**

Factor Analysis (FA) techniques, as described by Field (2006), can be used conveniently for data reduction purposes as well as to understand the structure of the set of variables. Those techniques are used to summarize or reduce a large set of variables by using a smaller set of components (factors) (Hair et al., 2006).

For this study, the researcher used Exploratory Factor Analysis (EFA) to examine the dimensions of each construct, followed by Confirmatory Factor Analysis (CFA), in order to test and confirm the relationships between the observed variables under each hypothesised construct (Hair et al., 2006).

#### **4.4.1 Exploratory Factor Analysis (EFA)**

The EFA is used when the researcher wishes to identify a set of latent constructs underlying a battery of measured variables (Hair et al, 2006). EFA is done through: 1) extraction which is the process to determine the factors underlying a number of variables (Hair et al., 2006; Miller et al., 2002); and 2) rotation, following the extraction step; this aims to present the pattern of loadings in a manner that is easier and most adequate to interpret (Hair et al., 2006).

The Principal Component Analysis (PCA) is a preferred method for extracting factors by reducing the number of dimensions without much loss of information since it considers the total variance (Hair et al., 2006). For the rotation, the two most widely used methods are: orthogonal; and oblique (Field, 2009; Hair et al., 2006). An orthogonal rotation produces factors that are uncorrelated whereas an oblique rotation allows factors to correlate (Bryman and Cramer, 2005). By using Varimax, the orthogonal rotation is by far the most common choice since, compared to oblique rotation, it offers higher generalizability and replicability for its results (Tabachnick and Fidell, 2001). The researcher used CFA and structural equation modelling to verify the dimensions selected through the EFA process.

Since this study contained some measures, which were developed from scratch and other measures which were not applied to the context of social media except for very few previous studies, the researcher divided the total sample (N= 277) randomly into two split-half samples (n1= 138, n2= 139). He performed EFA on the first split-half sample in order to identify the factor structure. He performed CFA on the remaining half sample by using structural equation modelling (Rhodes and Arceo, 2004).

##### **4.4.1.1 Innovation Characteristics**

The results of the Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity showed that the value of the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy value was 0.896 which was classified as meritorious and the Bartlett's test of Sphericity was ( $p < .001$ ); these results revealed the appropriateness of sample data for conducting factor analysis.

Hence, the researcher conducted the factor extraction process by using PCA on the basis of eigenvalue of 1.0 as the benchmark in deciding the number of factors (Hair et al., 2006). From using PCA, the factor extraction results indicated the identification of five factors; the first one explained 43.089% of the total variance of 73.817%, and the other four factors explained the remaining variance in the model. All the variables score high communalities varied from 0.645 to 0.855.

Consequently, the original rotated component matrix (Table 4.14) presents loadings of each measured item on each of the identified five latent factors. The Table shows that there were cross loadings of some items which were expected to be loaded on expected factors with loadings exceeding the minimum criteria of 0.30 (Hair et al., 1998; Tabachnick and Fidell, 2001); these needed to be dropped (PEOU1, PRA7, SN2, SN3).

**Table 4.14: Original Rotated Component Matrix for Innovation Constructs**

| Items  | Component |       |       |   |   |
|--|-----------|-------|-------|---|---|
|  | 1         | 2     | 3     | 4 | 5 |
| It is easy for me to remember how to perform tasks using the social media platforms. <b>(PEOU1)</b>                  |           | 0.683 | 0.505 |   |   |
| I believe that it is easy to get social media sites to do what I want them to do. <b>(PEOU2)</b>                     |           | 0.768 |       |   |   |
| My interaction with social media sites for exporting efforts is easy and understandable. <b>(PEOU3)</b>              |           | 0.704 |       |   |   |
| I find social networks sites flexible to interact with. <b>(PEOU4)</b>   |           | 0.728 |       |   |   |
| It is easy for me to become skillful at using social networks for exporting efforts. <b>(PEOU5)</b>                  |           | 0.752 |       |   |   |
| Overall, I believe that social media sites are easy to use for marketing to other companies. <b>(PEOU6)</b>          |           | 0.770 |       |   |   |
| Using social media sites enables me to accomplish exporting efforts more quickly. <b>(PRA1)</b>                      | 0.765     |       |       |   |   |
| Using social media sites improves our exporting performance. <b>(PRA2)</b>   | 0.801     |       |       |   |   |
| Using social media sites gives me greater control over my international social interactions. <b>(PRA3)</b>           | 0.501     |       |       |   |   |
| Using social media sites improve the quality of the firm's exporting activities. <b>(PRA4)</b>                       | 0.823     |       |       |   |   |
| By using social media, our firm would find it more effective in exporting efforts. <b>(PRA5)</b>                     | 0.804     |       |       |   |   |
| Using social media sites allows me to accomplish more exporting work that would otherwise be possible. <b>(PRA6)</b> | 0.865     |       |       |   |   |



|   |       |  |       |       |
|---|-------|--|-------|-------|
| Overall, I find using social media sites will be advantageous to my company. <b>(PRA7)</b>                            | 0.363 |  | 0.700 |       |
| I have seen social media in use outside my company. <b>(OBSERV1)</b>  |       |  |       | 0.706 |
| It is easy for me to observe others using social media outside my company. <b>(OBSERV2)</b>                           |       |  |       | 0.877 |
| There are plenty of opportunities to see others using social media. <b>(OBSERV3)</b>                                  |       |  |       | 0.889 |
| Most people who are important to our company (stakeholders) think that we should use social media sites. <b>(SN1)</b> |       |  |       | 0.443 |
| It is expected that companies like ours should use social media sites. <b>(SN2)</b>                                   | 0.410 |  | 0.462 | 0.381 |
| Companies like ours think that we will benefit from social media in our company. <b>(SN3)</b>                         |       |  | 0.655 | 0.394 |
| Our competitors use social media sites. <b>(SN4)</b>  |       |  |       | 0.867 |
| Our customers use social media sites. <b>(SN5)</b>  |       |  |       | 0.683 |

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 10 iterations.

After deleting the cross-loading items, the results of the KMO and Bartlett's Test of Sphericity showed that the value of the KMO measure of sampling adequacy value was 0.874 which was classified as meritorious and the Bartlett's test of Sphericity was ( $p < .001$ ). These results revealed the appropriateness of sample data for conducting factor analysis.

Hence, the researcher conducted factor extraction process by using PCA on the basis of eigenvalue of 1.0 as the benchmark in deciding the number of factors (Hair et al., 2006). The results indicated the identification of four factors, the first one explained 43.872% of the total variance of 72.539%, and the other three factors explained the remaining variance in the model. All the variables scored high communalities which varied from 0.568 to 0.848.

Consequently, the purified rotated component matrix (Table 4.15) presents loadings of each measured item on each of the identified four latent factors. The loading matrix shows that the measured items have loadings higher than 0.50 whereas Hair et al. (1998) suggested that a loading of more than 0.40 was statistically significant at the 0.05 alpha level.

**Table 4.15: Purified Rotated Component Matrix for Innovation Constructs after Dropping**

**Items**

| Items  | Component |       |       |       |
|--|-----------|-------|-------|-------|
|  | 1         | 2     | 3     | 4     |
| I believe that it is easy to get social media sites to do what I want them to do. (PEOU2)                      |           | 0.784 |       |       |
| My interaction with social media sites for exporting efforts is easy and understandable. (PEOU3)               |           | 0.675 |       |       |
| I find social networks sites flexible to interact with. (PEOU4)  |           | 0.760 |       |       |
| It is easy for me to become skillful at using social networks for exporting efforts. (PEOU5)                   |           | 0.747 |       |       |
| Overall, I believe that social media sites are easy to use for marketing to other companies. (PEOU6)           |           | 0.807 |       |       |
| Using social media sites enables me to accomplish exporting efforts more quickly. (PRA1)                       | 0.810     |       |       |       |
| Using social media sites improves our exporting performance. (PRA2)  | 0.814     |       |       |       |
| Using social media sites gives me greater control over my international social interactions. (PRA3)            | 0.636     |       |       |       |
| Using social media sites improve the quality of the firm's exporting activities. (PRA4)                        | 0.813     |       |       |       |
| By using social media, our firm would find it more effective in exporting efforts. (PRA5)                      | 0.857     |       |       |       |
| Using social media sites allows me to accomplish more exporting work that would otherwise be possible. (PRA6)  | 0.844     |       |       |       |
| I have seen social media in use outside my company. (OBSERV1)  |           |       | 0.781 |       |
| It is easy for me to observe others using social media outside my company. (OBSERV2)                           |           |       | 0.834 |       |
| There are plenty of opportunities to see others using social media. (OBSERV3)                                  |           |       | 0.897 |       |
| Most people who are important to our company (stakeholders) think that we should use social media sites. (SN1) |           |       |       | 0.560 |
| Our competitors use social media sites. (SN4)  |           |       |       | 0.851 |
| Our customers use social media sites. (SN5)  |           |       |       | 0.816 |

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 5 iterations.

#### **4.4.1.2 Innovativeness of the Firm (INNOV) Construct**

The results of the KMO and Bartlett's Test of Sphericity showed that the value of the KMO measure of sampling adequacy value was 0.707; this was classified as middling and the Bartlett's test of Sphericity was ( $p < .001$ ). These results revealed the appropriateness of sample data for conducting factor analysis. Hence, the researcher conducted the factor extraction process by using PCA on the basis of eigenvalue of 1.0 as the benchmark in deciding the number of factors (Hair et al., 2006). The results indicated identification of one factor; this explained 79.468% of the total variance in the model. All the variables scored high communalities which varied from 0.716 to 0.854.

#### **4.4.1.3 Social media Use (SMUSE) Construct**

The results of the KMO and Bartlett's Test of Sphericity showed that the value of the KMO measure of sampling adequacy value was 0.811; this was classified as meritorious and the Bartlett's test of Sphericity was ( $p < .001$ ). These results revealed the appropriateness of sample data for conducting factor analysis. Hence, the researcher conducted the factor extraction process by using PCA on the basis of eigenvalue of 1.0 as the benchmark in deciding the number of factors (Hair et al., 2006). The results indicated the identification of three factors; the first one explained 44.044% of the total variance of 66.078%, and the other two factors explained the remaining variance in the model. All the variables scored high communalities which varied from 0.571 to 0.792 except for SMUSE12 with a value of 0.443 below the minimum value of 0.50 (Hair et al., 2006).

Consequently, the original rotated component matrix (Table 4.16) presents loadings of each measured item on the identified latent factors identified. The Table shows that there are cross loadings of items which were expected to loaded on one factor (SMUSE) with loadings exceeding the minimum criteria of 0.30 (Hair et al., 1998; Tabachnick and Fidell, 2001). Consequently, SMUSE7, SMUSE9, SMUSE10, and SMUSE11 needed to be dropped first, SMUSE12 and SMUSE4 needed to be dropped in a subsequent step to reach the final stage.

**Table 4.16: Original Rotated Component Matrix for Social Media Use (SMUSE) Construct**

| Items   | Component |       |       |
|---|-----------|-------|-------|
|   | 1         | 2     | 3     |
| We use social media to generate sales leads abroad. (SMUSE1)  |           | 0.877 |       |
| We use social media to sustain our relationships with our present customers. (SMUSE2)                                   | 0.809     |       |       |
| We use social media to strength our relationships with our present customers. (SMUSE3)                                  | 0.774     |       |       |
| We are unsure how to make the best out of social media. (SMUSE4)  |           |       | 0.718 |
| Social media is a channel through which we collect intelligence on the needs of customers abroad. (SMUSE5)              |           | 0.862 |       |
| We keep our eyes on what international customers have to say for us in various social media platforms. (SMUSE6)         | 0.696     |       |       |
| Every social media initiative we launch abroad has very clear objectives to serve and meet. (SMUSE7)                    | 0.597     | 0.466 |       |
| We actively seek to have international customers engaged with our social media initiatives. (SMUSE8)                    | 0.777     |       |       |
| We have revised aspects of our exporting strategy based on the intelligence we generated through social media. (SMUSE9) | 0.420     |       | 0.618 |
| We have revised aspects of our exporting tactics based on the intelligence we generated through social media. (SMUSE10) | 0.552     |       | 0.667 |
| Every social media initiative we launch abroad has very clear criteria against which it is evaluated. (SMUSE11)         | 0.487     | 0.407 | 0.463 |
| We very rarely evaluate the social media initiative we launch abroad. (SMUSE12)   | 0.625     |       |       |

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 4 iterations.

After deleting the cross-loading items, the results of the KMO and Bartlett's Test of Sphericity show that the value of the KMO measure of sampling adequacy value was 0.727; this could be classified as middling and the Bartlett's test of Sphericity was ( $p < .001$ ). These results revealed the appropriateness of sample data for conducting factor analysis.

Hence, the researcher conducted the factor extraction process by using PCA on the basis of eigenvalue of 1.0 as the benchmark in deciding the number of factors (Hair et al., 2006). The results indicated identification of two factors; the first one explained 53.336% of the total variance of 75.138%; and the other factor explained

the remaining variance in the model. All the variables scored high communalities which varied from 0.637 to 0.813.

Consequently, the purified rotated component matrix (Table 4.17) presents loadings of each measured item on each of the identified two latent factors identified. The loading matrix showed that the measured items had loadings higher than 0.50 whereas Hair et al. (1998) suggested that a loading of more than 0.40 was statistically significant at the 0.05 alpha level. These new developed two sub-factors were named: 1) establish and strengthen relationships with existing customers abroad (ESR); and 2) understand new customers abroad and sell to them (UCS). In terms of internal consistency, the Cronbach alphas for those two sub-factors were 0.860 for ESR, and 0.737 for UCS, respectively. As those Cronbach alphas were higher than the suggested threshold (0.70), hence, this evidence indicated that the scale was considered reliable and could be used for further analysis (Hair et al., 2006).

**Table 4.17: Purified Rotated Component Matrix for Social Media Use (SMUSE) Construct after Dropping Items**

| Items   | Component |       |
|---|-----------|-------|
|   | 1         | 2     |
| We use social media to generate sales leads abroad. (SMUSE1)  |           | 0.885 |
| We use social media to sustain our relationships with our present customers. (SMUSE2)                           | 0.900     |       |
| We use social media to strength our relationships with our present customers. (SMUSE3)                          | 0.851     |       |
| Social media is a channel through which we collect intelligence on the needs of customers abroad. (SMUSE5)      |           | 0.887 |
| We keep our eyes on what international customers have to say for us in various social media platforms. (SMUSE6) | 0.719     |       |
| We actively seek to have international customers engaged with our social media initiatives. (SMUSE8)            | 0.813     |       |
| <b>Cronbach Alpha</b>   | 0.860     | 0.737 |

Extraction Method: Principal Component Analysis.  
 Rotation Method: Varimax with Kaiser Normalization.<sup>a</sup>  
 a. Rotation converged in 3 iterations.

#### 4.4.1.4 Brand Awareness (BA) Construct

The results of the KMO and Bartlett's Test of Sphericity showed that the value of the KMO measure of sampling adequacy value was 0.848; this was classified as meritorious and the Bartlett's test of Sphericity was ( $p < .001$ ). These results revealed the appropriateness of the sample data for conducting factor analysis. Hence, the researcher conducted the factor extraction process by using PCA on the basis of

eigenvalue of 1.0 as the benchmark in deciding the number of factors (Hair et al., 2006). The results indicated identification of one factor which explained 83.087% of the total variance in the model. All the variables scored high communalities which varied from 0.802 to 0.876.

#### **4.4.1.5 Understanding Customers' Views and Preferences (UCUST) Construct**

The results of the KMO and Bartlett's Test of Sphericity showed that the value of the KMO measure of sampling adequacy value was 0.745; this was classified as middling and the Bartlett's test of Sphericity was ( $p < .001$ ). These results revealed the appropriateness of sample data for conducting factor analysis. Hence, the researcher conducted the factor extraction process by using PCA on the basis of eigenvalue of 1.0 as the benchmark in deciding the number of factors (Hair et al., 2006). The results indicated identification of one factor which explained 81.604% of the total variance in the model. All the variables scored high communalities which varied from 0.802 to 0.836.

#### **4.4.1.6 Understanding Competition in Different Markets (UCOMP) Construct**

The results of the KMO and Bartlett's Test of Sphericity showed that the value of the KMO measure of sampling adequacy value was 0.828; this was classified as meritorious and the Bartlett's test of Sphericity was ( $p < .001$ ). These results revealed the appropriateness of sample data for conducting factor analysis. Hence, the researcher conducted the factor extraction process by using PCA on the basis of eigenvalue of 1.0 as the benchmark in deciding the number of factors (Hair et al., 2006). The results indicated the identification of one factor which explained 76.727% of the total variance in the model. All the variables scored high communalities which varied from 0.714 to 0.848.

#### **4.4.1.7 Cultural Adaptation (CA) Construct**

The results of the KMO and Bartlett's Test of Sphericity showed that the value of the KMO measure of sampling adequacy value was 0.909; this was classified as meritorious and the Bartlett's test of Sphericity was ( $p < .001$ ). These results revealed the appropriateness of sample data for conducting factor analysis. Hence, the researcher conducted the factor extraction process by using PCA on the basis of eigenvalue of 1.0 as the benchmark in deciding the number of factors (Hair et al., 2006). The results indicated the identification of one factor which explained 82.235% of the total variance in the model. All the variables scored high communalities which varied from 0.779 to 0.851.

#### **4.4.1.8 Customer Engagement (CE) Construct**

The results of the KMO and Bartlett's Test of Sphericity showed that the value of the KMO measure of sampling adequacy value was 0.923; this was classified as meritorious and the Bartlett's test of Sphericity was ( $p < .001$ ). The results revealed the appropriateness of sample data for conducting factor analysis. Hence, the researcher conducted the factor extraction process by using PCA on the basis of eigenvalue of 1.0 as the benchmark in deciding the number of factors (Hair et al., 2006). The results indicated the identification of one factor which explained 68.045% of the total variance in the model. All the variables scored high communalities which varied from 0.543 to 0.733.

#### **4.4.1.9 Export Performance (EXP) Construct**

The results of the KMO and Bartlett's Test of Sphericity showed that the value of the KMO measure of sampling adequacy value was 0.757; this was classified as middling and the Bartlett's test of Sphericity was ( $p < .001$ ). These results revealed the appropriateness of sample data for conducting factor analysis. Hence, the researcher conducted the factor extraction process by using PCA on the basis of eigenvalue of 1.0 as the benchmark in deciding the number of factors (Hair et al.,

2006). The results indicated the identification of one factor which explained 88.879% of the total variance in the model. All the variables scored high communalities which varied from 0.857 to 0.911.

Since this research's theoretical goal was to identify interrelationships, the researcher used a two-stage approach. Firstly, he used a measurement model assessment (Stage1) and, then, structural equation modelling to assess a structure model (Stage2) (Schumacker and Lomax, 2004).

Structure equation modelling is a statistical technique which is being considered as the second generation of multivariate analysis. The reason is that SEM integrates both latent (unobserved) variables, which can be represented in the model, with its inferring observed (manifest/indicator) variables (Chin, 1998; Hu, 1997). According to Hu (1997), a more precise and holistic perspective can be achieved through the use of SEM to provide a more precise prediction of the theoretical construct. In addition, SEM goes beyond other multivariate techniques in that it allows interrelationships among number of variables (both measurement and structure component of the model) to be examined simultaneously instead of being able to examine only a single construct relationship at a time (Hair et al., 2006). Another benefit of using SEM is its ability to estimate the measurement errors and to incorporate these errors in the model (Hair et al., 2010). As argued by Lacobucci et al. (2007), the SEM is better than regression because of the reduced standard errors which result from simultaneously estimation of all parameters in the SEM model.

Although there are a lot of programs, such as LISREL, EQS, Smart PLS and Mplus which can be used for SEM, the researcher chose Analysis of Moment Structures, called AMOS program version 21, because of its graphics interface ease of use; its capability in assessing the measurement and structure model; its popularity among researchers; and because it offered powerful and rigorous statistical techniques to deal with complex models (Byrne, 2001; Tabachnick and Fidell, 2001; Hair et al., 2006).



#### **4.4.2 Confirmatory Factor Analysis (CFA)**

The Confirmatory Factor Analysis (CFA) tests the psychometric and unidimensionality of all measures (Byrne, 2010). In order to verify and confirm the scale yielded from EFA, it is recommended to perform CFA after EFA (Byrne, 2010). In performing CFA, the researcher used goodness-of-fit criteria indices, validity and reliability to evaluate the measurement model (Hair et al., 2006). Consequently, the researcher used CFA with the second half of the sample (n=139) to assess the unidimensionality, validity and reliability.

Goodness-of-fit (GFI) indices measure the degree of correspondence between the actual/observed covariance matrix and the one yielded from the proposed model. SEM has three main types of fit measures: absolute fit indices; incremental fit indices; and parsimonious fit indices (Hair et al., 1998, Byrne, 2010). Absolute fit measures indicate how well the estimated model reproduces the observed data; these include the likelihood ratio statistic chi-square ( $X^2$ ), root mean square error of approximation (RMSEA), and the GFI index (Hair et al., 1998; Byrne, 2010). Incremental fit measures indicate how well the estimated model fits relative to the alternative baseline model; the null model is the most commonly used baseline model. These measures include Normed Fit Index (NFI), Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI). The last fit measure is the parsimonious fit indices which indicate if the model can be improved by specifying fewer estimated parameter paths; these include Adjusted Goodness-of-Fit Index (AGFI) and the PNFI Parsimony Normed Fit Index (Hair et al., 1998; Byrne, 2010).

A single-model index may be limited; therefore, the researcher used multiple indicators to establish a good model. The mostly used fit indices are the CFI, TLI, and the Root Mean Square Error of Approximation (RMSEA). According to the literature, CFI values of less than 0.90 do not usually indicate model fit (Kline, 2005; Hair et al., 2006) whereas an index of 0.95 is preferable (Kline, 2005). TLI values of more than 0.90 indicate a good fit (Byrne, 2010); however an index of above .95 is preferable (Hair et al., 2006). RMSEA values between 0.03 and 0.08 are preferable; however, MacCallum et al. (1996) and El-Gohary (2012) elaborated on these cut

points and noted that (RMSEA) values ranging from 0.08 to 0.10 indicated recommended fit levels.

Other indicators were used in the literature. The chi-square ( $X^2$ ) statistic is considered to be a fundamental goodness of fit to measure the difference between the observed and the estimated matrices (Hair et al., 2010). Significant ( $X^2$ ) indicates that the two metrics are different; this points to a problem with the model fit. Also, ( $X^2$ ) is very sensitive to sample size. However, a way to address the problem of ( $X^2$ ) is to use the ( $X^2/df$ ) ratio (normed chi-square) to minimise the influence of the sample size. The general rule is that below 2.00 and even up to 5.00 is acceptable whereas others argued that an accepted and recommended ratio for this statistic was as low as 3.00 (Segars and Grover, 1993; Kline, 2005). For the GFI, values greater than 0.90 typically indicate good fit (Byrne, 2010); however, 0.95 is preferable (Hair et al., 2006). Many scholars argued recently that GFI was sensitive to sample size (e.g. Byrne, 2010, Hair et al., 2010, Hooper et al., 2008). In addition, for AGFI, some argued that values between 0.90 and 0.95 indicated an adequate fit (Kline, 2005; Byrne, 2010); however AGFI, with values greater than 0.80, indicate good model fit (Segars and Grover, 1993, Straub et al., 2004).

#### **4.4.2.1 Construct Validity**

Construct validity refers to the extent to which the measurement indicators actually reflect the construct that they designed to measure (Hair et al., 2006). Construct's validity refers to "the measure, based on a suitable operational definition of the construct, appropriately reflects the concept of interest" (Lewis et al., 2005, p.396). This construct validity consists of: convergent validity; and discriminant validity.

##### **I. Convergent Validity**

Convergent validity is the extent to which observed variables of a particular construct share in common a high portion of the variance (Hair et al., 2006). Average Variance Extracted (AVE) and Construct Reliability (CR) estimation are used to assess the convergent validity of each of the constructs (Hair et al., 2006). For accepted convergent validity, AVE is recommended to be greater than .5 and

CR to be greater than 0.70 (Hair et al., 2006). The researcher calculated AVE by using the following formula suggested by Hair et al. (2006).

$$AVE = \frac{\sum_{i=1}^n \lambda_i^2}{n}$$

Note: in the formula mentioned above  $\lambda$  represents factor loadings (standardized regression weights),  $i$  represents a specific item, and  $n$  represents the total number of items.

## II. Discriminant Validity

Discriminant validity refers to the extent to which a latent construct is truly distinct from other latent constructs (Hair et al., 2006). In order to assess the discriminant validity, each construct's AVE should be larger than the corresponding squared inter-construct correlation estimate (SIC) (Hair et al., 2006).

### 4.4.2.2 Reliability

Despite that the coefficient alpha remains the commonly applied estimate; it may understate reliability since it relates to the number of scale items (Hair et al., 2010). In order to deal with this problem, the researcher used CR derived from the CFA. A CR value greater than 0.70 is considered acceptable (Bagozzi and Yi, 1988). In order to calculate the overall reliability of the each of the latent constructs used in the model, the researcher used the following formula suggested by (Hair et al., 2006).

$$CR = \frac{(\sum_{i=1}^n \lambda_i)^2}{(\sum_{i=1}^n \lambda_i)^2 + (\sum_{i=1}^n \delta_i)}$$

Note: in the formula mentioned above  $\lambda$  represents factor loadings (standardized regression weights),  $i$  represents a specific item,  $n$  represents the total number of items, and  $\delta$  represents the error variance term for each latent construct.

After the model indicators were established, the researcher used those indicators to interpret the confirmatory factor analysis for each factor. These are illustrated next.

### I. Perceived Ease of Use, Perceived Relative Advantage, Observability and Subjective Norms Constructs (Usage Stage)

CFA was performed on the measurement model comprising four constructs, which were: Perceived Ease of Use (PEOU); Perceived Relative Advantage (PRA); Observability (OBSERV); and Subjective Norms (SN). Modification Indices (MI) showed that there was a significant covariance between some construct measurements' errors for (PRA3) and (OBSERV2) and, also, between (PRA2) and (SN1), accompanied by high MI-regression weights which were candidates to be freed or deleted subsequently (Hair et al., 2010; Byrne, 2010).

**Table 4.18: Summary of Findings (CFA): PEOU, PRA, OBSERV, and SN**

| Item Wording   | Initial Standardized Loadings | Final Standardized Loadings |
|--|-------------------------------|-----------------------------|
| <b>Perceived Ease of Use</b>   |                               |                             |
| I believe that it is easy to get social media sites to do what I want them to do. (PEOU2)                      | 0.825                         | 0.825                       |
| My interaction with social media sites for exporting efforts is easy and understandable. (PEOU3)               | 0.768                         | 0.770                       |
| I find social networks sites flexible to interact with. (PEOU4)  | 0.719                         | 0.718                       |
| It is easy for me to become skillful at using social networks for exporting efforts. (PEOU5)                   | 0.722                         | 0.724                       |
| Overall, I believe that social media sites are easy to use for marketing to other companies. (PEOU6)           | 0.790                         | 0.788                       |
| <b>Perceived Relative Advantage</b>  |                               |                             |
| Using social media sites enables me to accomplish exporting efforts more quickly. (PRA1)                       | 0.867                         | 0.871                       |
| Using social media sites improves the quality of the its exporting activities. (PRA4)                          | 0.847                         | 0.837                       |
| By using social media, our firm would find it more effective in exporting efforts. (PRA5)                      | 0.882                         | 0.904                       |
| Using social media sites allows me to accomplish more exporting work that would otherwise be possible. (PRA6)  | 0.861                         | 0.839                       |
| <b>Observability</b>   |                               |                             |
| I have seen social media in use outside my company. (OBSERV1)  | 0.810                         | 0.810                       |
| It is easy for me to observe others using social media outside my company. (OBSERV2)                           | 0.800                         | 0.801                       |
| There are plenty of opportunities to see others using social media. (OBSERV3)                                  | 0.869                         | 0.868                       |
| <b>Subjective Norms</b>  |                               |                             |
| Most people who are important to our company (stakeholders) think that we should use social media sites. (SN1) | 0.586                         | 0.591                       |
| Our competitors use social media sites. (SN4)  | 0.700                         | 0.694                       |
| Our customers use social media sites. (SN5)  | 0.714                         | 0.710                       |

|  |                |            |             |            |            |              |
|--|----------------|------------|-------------|------------|------------|--------------|
| <b>Excluded</b>  |                |            |             |            |            |              |
| Using social media sites give me greater control over my international social interactions. (PRA3) |                |            | 0.626       |            |            |              |
| Using social media sites improve our exporting performance. (PRA2)                                 |                |            | 0.890       |            |            |              |
| <b>Fit Indices</b>   |                |            |             |            |            |              |
|  | <b>CMIN/DF</b> | <b>GFI</b> | <b>AGFI</b> | <b>CFI</b> | <b>TLI</b> | <b>RMSEA</b> |
| <b>Initial</b>   | 2.063          | 0.834      | 0.776       | .919       | 0.903      | .088         |
| <b>Final</b>   | 1.765          | 0.890      | 0.814       | 0.946      | 0.932      | 0.074        |

**Table 4.19: Validity and Reliability of: PEOU, PRA, OBSERV, and SN**

| <b>Construct</b> | <b>Construct Reliability (CR)</b> | <b>Average Variance Extracted (AVE)</b> | <b>Highest (Corr<sup>2</sup>)</b> | <b>Discriminant Validity</b> |
|------------------|-----------------------------------|---|-----------------------------------|------------------------------|
| <b>PEOU</b>      | 0.899                             | 0.642                                   | 0.485                             | 1.324                        |
| <b>PRA</b>       | 0.924                             | 0.751                                   | 0.365                             | 2.058                        |
| <b>OBSERV</b>    | 0.939                             | 0.838                                   | 0.317                             | 2.644                        |
| <b>SN</b>        | 0.803                             | 0.579                                   | 0.485                             | 1.194                        |

As presented in Table 4.18 and Table 4.19, the model CMIN normed chi-square ratio with degrees of freedom was 1.765, (GFI) 0.890, (AGFI) 0.814, (CFI) 0.946, (TLI) 0.932, (RMSEA) 0.074. Thus, the re-specification of these factors improved them to fall within the acceptable level as illustrated by final fit indices. The item factor loadings were all above 0.50 (Hair et al., 2010; Chin, 1998) as illustrated by final standardized loadings, with construct reliability for the factors above the acceptable score of 0.70 (Hair et al., 2010). In addition, the convergent validity was within the acceptable level of greater than 0.50 (Hair et al., 2010). Finally, for the discriminant validity,  $AVE/(Corr^2)$  needed to be greater than 1;  $(Corr^2)$  represents the highest  $(Corr^2)$  between factor of interest and remaining factors (Gounaris, 2005).

## **II. Innovativeness of the Firm (INNOV)**

CFA was performed on the measurement model of INNOV. As presented in Table 4.20, the model CMIN normed chi-square ratio with degrees of freedom was 1.393, (GFI) 0.950, (AGFI) 0.800, (CFI) 0.937, (TLI) 0.912, (RMSEA) 0.104; these fell within the acceptable range. The factor loadings for these three items were 0.787, 0.806 and 0.942. The item factor loadings were all above 0.50 (Hair et al., 2010; Chin, 1998), with construct reliability for the factors above the acceptable score of 0.70 (Hair et al., 2010). In addition, the convergent validity was within the acceptable level of greater than 0.50 (Hair et al., 2010).

**Table 4.20: Summary of Findings (CFA): Innovativeness of the Firm (INNOV)**

| Item Wording   |         | Initial Standardized Loadings | Final Standardized Loadings |       |       |       |  |
|--|---------|-------------------------------|-----------------------------|-------|-------|-------|--|
| If our firm heard about a new information technology, it would look for ways to experiment with it. (INNOV1) |         | 0.787                         | 0.787                       |       |       |       |  |
| Among our peers, our company is usually the first to try out new information technologies. (INNOV2)          |         | 0.806                         | 0.806                       |       |       |       |  |
| Overall, our company likes to experiment with new information technologies. (INNOV3)                         |         | 0.942                         | 0.942                       |       |       |       |  |
| Fit Indices  |         |                               |                             |       |       |       |  |
|  | CMIN/DF | GFI                           | AGFI                        | CFI   | TLI   | RMSEA |  |
| <b>Final</b>   | 1.393   | 0.950                         | 0.800                       | 0.937 | 0.912 | 0.104 |  |
| <b>Composite Construct Reliability: 0.868; Average Variance Extracted (AVE): 0.688</b>                       |         |                               |                             |       |       |       |  |

### III. Social Media Use (SMUSE)

CFA was performed on the measurement model of SMUSE. MI showed that there was significant covariance between the same construct measurements' errors for SMUSE6, SMUSE8, accompanied by high MI-regression weights which were candidates to be freed or deleted (Hair et al., 2010; Byrne, 2010). Therefore, SMUSE8 was excluded.

**Table 4.21: Summary of Findings (CFA): Social Media Use (SMUSE)**

| Item Wording   |         | Initial Standardized Loadings | Final Standardized Loadings |       |       |       |  |
|--|---------|-------------------------------|-----------------------------|-------|-------|-------|--|
| <b>ESR</b>   |         |                               |                             |       |       |       |  |
| We use social media to sustain our relationships with our present customers. (SMUSE2)                    |         | 0.899                         | 0.877                       |       |       |       |  |
| We use social media to strengthen our relationships with our present customers (SMUSE3)                  |         | 0.852                         | 0.895                       |       |       |       |  |
| We keep a close eye on what international customers have to say for us in various social media. (SMUSE6) |         | 0.600                         | 0.538                       |       |       |       |  |
| <b>UCS</b>   |         |                               |                             |       |       |       |  |
| We use social media to generate sales leads abroad. (SMUSE1)   |         | 0.734                         | 0.739                       |       |       |       |  |
| Social media is a channel through which we collect intelligence on the needs customers abroad. (SMUSE5)  |         | 0.734                         | 0.729                       |       |       |       |  |
| <b>Excluded</b>  |         |                               |                             |       |       |       |  |
| We actively seek to have international customers engaged with our social media initiatives. (SMUSE8)     |         | 0.768                         |                             |       |       |       |  |
| Fit Indices  |         |                               |                             |       |       |       |  |
|  | CMIN/DF | GFI                           | AGFI                        | CFI   | TLI   | RMSEA |  |
| <b>Initial</b>   | 4.567   | 0.921                         | 0.794                       | 0.924 | 0.857 | 0.161 |  |
| <b>Final</b>   | 4.001   | 0.961                         | 0.855                       | 0.954 | 0.884 | 0.107 |  |

**Table 4.22: Validity and Reliability of Social Media Use (SMUSE)**

| SMUSE constructs  | Construct Reliability (CR) | Average Variance Extracted (AVE) | (Highest (Corr <sup>2</sup> )) | Discriminant Validity |
|---|----------------------------|----------------------------------|--------------------------------|-----------------------|
| Established and Strengthened Relationships with Existing Customers Abroad (ESR) | 0.860                      | 0.682                            | 0.346                          | 1.971                 |
| Understanding New Customers Abroad and Selling them (UCS)                       | 0.938                      | 0.883                            | 0.346                          | 2.408                 |

As presented in Table 4.21 and Table 4.22, the model CMIN normed chi-square ratio with degrees of freedom was 4.001, (GFI) 0.961, (AGFI) 0.855, (CFI) 0.954, (TLI) 0.884, (RMSEA) 0.107; these fell within the acceptable range as illustrated by final fit indices. The item factor loadings were all above 0.50 (Hair et al., 2010; Chin, 1998) as illustrated by final standardized loadings, with construct reliability for the factors above the acceptable score of 0.70 (Hair et al., 2010). In addition, the convergent validity was within the acceptable level of greater than 0.50 (Hair et al., 2010). Finally, for the discriminant validity,  $AVE/(Corr^2)$  needed to be greater than 1;  $(Corr^2)$ ; this represented the highest  $(Corr)^2$  between factor of interest and remaining factors (Gounaris, 2005).

#### **IV. Brand Awareness (BA)**

CFA was performed on the measurement model of BA. As presented in Table 4.23, the model CMIN normed chi-square ratio with degrees of freedom was 1.032, (GFI) 0.992, (AGFI) 0.962, (CFI) 1.000, (TLI) 1.000, (RMSEA) 0.015; these fell within the acceptable range with the exception of RMSEA which fell within the accepted values. The item factor loadings were all above 0.50 (Hair et al., 2010; Chin, 1998), with construct reliability for the factors above the acceptable score of 0.70 (Hair et al., 2010). In addition, the convergent validity was within the acceptable level of greater than 0.50 (Hair et al., 2010).

**Table 4.23: Summary of Findings (CFA): Brand Awareness (BA)**

| Item Wording   |         | Initial Standardized Loadings | Final Standardized Loadings |       |       |       |  |
|--|---------|-------------------------------|-----------------------------|-------|-------|-------|--|
| Recognizing your company/brand among other competing companies/brands in social media. (BA1) |         | 0.862                         | 0.862                       |       |       |       |  |
| Making your company/brand comes to the minds of your business customers. (BA2)               |         | 0.921                         | 0.921                       |       |       |       |  |
| Making your business customers know what your brand stands for (brand knowledge). (BA3)      |         | 0.886                         | 0.886                       |       |       |       |  |
| Making your business customers have an opinion about your brand (brand opinion). (BA4)       |         | 0.885                         | 0.885                       |       |       |       |  |
| Fit Indices  |         |                               |                             |       |       |       |  |
|  | CMIN/DF | GFI                           | AGFI                        | CFI   | TLI   | RMSEA |  |
| <b>Final</b>   | 1.032   | 0.992                         | 0.962                       | 1.000 | 1.000 | 0.015 |  |
| <b>Composite Construct Reliability: 0.936; Average Variance Extracted (AVE): 0.786</b>       |         |                               |                             |       |       |       |  |

### V. Understanding Customers' Views and Preferences (UCUST)

CFA was performed on the measurement model of UCUST. As presented in Table 4.24, the model CMIN normed chi-square ratio with degrees of freedom was 0.722, (GFI) 0.997, (AGFI) 0.979, (CFI) 1.000, (TLI) 1.002, (RMSEA) 0.000; these fell within the acceptable range. The item factor loadings were all above 0.50 (Hair et al., 2010; Chin, 1998), with construct reliability above the acceptable score of 0.70 (Hair et al., 2010). In addition, the convergent validity was within the acceptable level of greater than 0.50 (Hair et al., 2010).

**Table 4.24: Summary of Findings (CFA): Understanding Customers' Views and Preferences (UCUST)**

| Item Wording   |         | Initial Standardized Loadings | Final Standardized Loadings |       |       |       |  |
|--|---------|-------------------------------|-----------------------------|-------|-------|-------|--|
| Understanding what customers say about your firm, its products. (UCUST1)   |         | 0.915                         | 0.915                       |       |       |       |  |
| Understanding the preferences of your international B2B customers. (UCUST2)  |         | 0.926                         | 0.926                       |       |       |       |  |
| Monitoring the experience of doing business with our existing customers that are discussed in different social media platforms. (UCUST3) |         | 0.896                         | 0.896                       |       |       |       |  |
| Fit Indices  |         |                               |                             |       |       |       |  |
|  | CMIN/DF | GFI                           | AGFI                        | CFI   | TLI   | RMSEA |  |
| <b>Final</b>   | 0.722   | 0.997                         | 0.979                       | 1.000 | 1.002 | 0.000 |  |
| <b>Composite Construct Reliability: 0.926; Average Variance Extracted (AVE): 0.806</b>   |         |                               |                             |       |       |       |  |

### VI. Understanding Competition in Different Markets (UCOMP)

CFA was performed on the measurement model of UCOMP. MI showed that there was significant covariance between same construct measurements' errors for UCOMP1 and UCOMP2, accompanied by high MI-regression weights which



were candidates to be freed or deleted (Hair et al., 2010; Byrne, 2010). Therefore, UCOMP2 was excluded.

**Table 4.25: Summary of Findings (CFA): Understanding Competition in Different Markets (UCOMP)**

| Item Wording   |                | Initial Standardized Loadings | Final Standardized Loadings |            |            |              |  |
|--|----------------|-------------------------------|-----------------------------|------------|------------|--------------|--|
| Gaining insights into different markets 'trends. (UCOMP1)  |                | 0.775                         | 0.737                       |            |            |              |  |
| Gaining insights into your competitors' strategy changes. (UCOMP3)                                   |                | 0.931                         | 0.980                       |            |            |              |  |
| Forecasting your competitors' future plans. (UCOMP4)   |                | 0.827                         | 0.847                       |            |            |              |  |
| <b>Excluded</b>  |                |                               |                             |            |            |              |  |
| Gaining insights into your competitors' strengths and weaknesses comparing to your company. (UCOMP2) |                | 0.819                         |                             |            |            |              |  |
| <b>Fit Indices</b>   |                |                               |                             |            |            |              |  |
|  | <b>CMIN/DF</b> | <b>GFI</b>                    | <b>AGFI</b>                 | <b>CFI</b> | <b>TLI</b> | <b>RMSEA</b> |  |
| <b>Initial</b>   | 12.829         | 0.910                         | 0.551                       | 0.938      | 0.814      | 0.293        |  |
| <b>Final</b>   | 1.613          | 0.992                         | 0.954                       | 0.997      | 0.992      | 0.06         |  |
| <b>Composite Construct Reliability: 0.874; Average Variance Extracted (AVE): 0.700</b>               |                |                               |                             |            |            |              |  |

As presented in Table 4.25, the model CMIN normed chi-square ratio with degrees of freedom was 1.613, (GFI) 0.992, (AGFI) 0.954, (CFI) 0.997, (TLI) 0.992, (RMSEA) 0.06; these fell within the accepted values. Thus, when compared to the initial model, the re-specification of the model improved this factor to fall within the acceptable level as illustrated by final fit indices. The item factor loadings were all above 0.50 (Hair et al., 2010; Chin, 1998) as illustrated by final standardized loadings, with construct reliability for the factors above the acceptable score of 0.70 (Hair et al., 2010). In addition, the convergent validity was within the acceptable level of greater than 0.50 (Hair et al., 2010).

## **VII. Cultural Adaptation (CA)**

CFA was performed on the measurement model of CA. MI showed that CA5 was correlated with CA2 and CA2 with CA1, accompanied by high MI-regression weights. Therefore, CA5 and CA1 were excluded subsequently.

**Table 4.26: Summary of Findings (CFA): Cultural Adaptation (CA)**

| Item Wording   |                | Initial Standardized Loadings | Final Standardized Loadings |            |            |              |  |
|--|----------------|-------------------------------|-----------------------------|------------|------------|--------------|--|
| We adjust the timing, tone, and content of our social media messages to better appeal to the target audience in the local markets. (CA2) |                | 0.897                         | 0.895                       |            |            |              |  |
| We adapt the social media messages as we learn more about the local culture and values. (CA3)  |                | 0.932                         | 0.936                       |            |            |              |  |
| We adjust the social media messages according to local laws, rules, and customs. (CA4)   |                | 0.883                         | 0.884                       |            |            |              |  |
| <b>Excluded</b>  |                |                               |                             |            |            |              |  |
| We translate the body of our social media messages into the local language. (CA1)  |                | 0.854                         |                             |            |            |              |  |
| We seek to adjust our social media strategy to make it more attractive to the target audience in the local markets. (CA5)                |                | 0.815                         |                             |            |            |              |  |
| <b>Fit Indices</b>   |                |                               |                             |            |            |              |  |
|  | <b>CMIN/DF</b> | <b>GFI</b>                    | <b>AGFI</b>                 | <b>CFI</b> | <b>TLI</b> | <b>RMSEA</b> |  |
| <b>Initial</b>   | 5.332          | 0.934                         | 0.803                       | 0.967      | 0.933      | 0.177        |  |
| <b>Final</b>   | .009           | 1.000                         | 1.000                       | 1.000      | 1.009      | 0.000        |  |
| <b>Composite Construct Reliability: 0.915; Average Variance Extracted (AVE): 0.783</b>   |                |                               |                             |            |            |              |  |

As presented in Table 4.26, the model CMIN normed chi-square ratio with degrees of freedom was 0.009, (GFI) 1.000, (AGFI) 1.000, (CFI) 1.000, (TLI) 1.009, (RMSEA) 0.000; these fell within the accepted values. Thus, when compared to the initial model, the re-specification of the model improved this factor to fall within the acceptable level as illustrated by final fit indices. The item factor loadings were all above 0.50 (Hair et al., 2010; Chin, 1998) as illustrated by final standardized loadings, with construct reliability for the factor above the acceptable score of 0.70 (Hair et al., 2010). In addition, the convergent validity was within the acceptable level of greater than 0.50 (Hair et al., 2010).

### VIII. Customer Engagement (CE)

CFA was performed on the measurement model of CE. MI showed that there was significant covariance between CE7, CE8, CE9 and CE10 measurements' errors, accompanied by high MI-regression weights, as CE7 was correlated with CE8 and CE8 with CE9. Therefore, CE7 and CE9 were excluded subsequently. In the following step, CE8 was correlated with CE10 and CE10 was correlated with CE1, hence, CE8 and CE10 were excluded subsequently.

**Table 4.27: Summary of Findings (CFA): Customer Engagement (CE)**

| Item Wording   | Initial Standardized Loadings | Final Standardized Loadings |             |            |            |              |  |
|--|-------------------------------|-----------------------------|-------------|------------|------------|--------------|--|
| I have found that my customers can continue using this online social platform for very long periods at a time. (CE1) | 0.717                         | 0.727                       |             |            |            |              |  |
| I have found that my customers devote a lot of energy to this online social platform. (CE2)                          | 0.875                         | 0.906                       |             |            |            |              |  |
| I have found that my customers usually try very hard to perform well on this online social platform. (CE3)           | 0.845                         | 0.900                       |             |            |            |              |  |
| I get non distracted attention of my customers when interacting through this online social platform. (CE4)           | 0.796                         | 0.816                       |             |            |            |              |  |
| I feel that my customers are immersed in this online social platform. (CE5)  | 0.811                         | 0.810                       |             |            |            |              |  |
| I have noticed that my customers pay a lot of attention to this online social platform. (CE6)                        | 0.891                         | 0.856                       |             |            |            |              |  |
| <b>Excluded</b>  |                               |                             |             |            |            |              |  |
| I find my customers enthusiastic when using this online social platform. (CE7)                                       | 0.796                         |                             |             |            |            |              |  |
| My customers find this online social media platform meaningful and purposeful. (CE8)                                 | 0.826                         |                             |             |            |            |              |  |
| I find my customers excited when using this online social platform. (CE9)  | 0.839                         |                             |             |            |            |              |  |
| My customers are generally interested in this online social platform. (CE10)   | 0.842                         |                             |             |            |            |              |  |
| <b>Fit Indices</b>   |                               |                             |             |            |            |              |  |
|  | <b>CMIN/DF</b>                | <b>GFI</b>                  | <b>AGFI</b> | <b>CFI</b> | <b>TLI</b> | <b>RMSEA</b> |  |
| <b>Initial</b>   | 3.578                         | 0.833                       | 0.737       | 0.928      | 0.907      | 0.137        |  |
| <b>Final</b>   | 1.484                         | 0.969                       | 0.928       | 0.993      | 0.989      | 0.059        |  |
| <b>Composite Construct Reliability: .9601 ; Average Variance Extracted (AVE): .7165</b>                              |                               |                             |             |            |            |              |  |

As presented in Table 4.27, the model CMIN normed chi-square ratio with degrees of freedom was 1.484, (GFI) 0.969, (AGFI) 0.928, (CFI) 0.993, (TLI) 0.989, (RMSEA) 0.059; these fell within the accepted values. Thus, when compared to the initial model, the re-specification of the model improved this factor to fall within the acceptable level as illustrated by final fit indices. The item factor loadings were all above 0.50 (Hair et al., 2010; Chin, 1998) as illustrated by final standardized loadings, with construct reliability for the factors above the acceptable score 0.70 (Hair et al., 2010). In addition, the convergent validity was within the acceptable level of greater than 0.50 (Hair et al., 2010).

### **IX. Export Performance (EXP)**

CFA was performed on the measurement model of EXP. As presented in Table 4.28, the model CMIN normed chi-square ratio with degrees of freedom

was 0.201, (GFI) 0.999, (AGFI) 0.994, (CFI) 1.000, (TLI) 1.005, (RMSEA) 0.000; these fell within the acceptable range. The item factor loadings were all above 0.50 (Hair et al., 2010; Chin, 1998), with construct reliability for the factors above the acceptable score of 0.70 (Hair et al., 2010). In addition, the convergent validity was within the acceptable level of greater than 0.50 (Hair et al., 2010).

**Table 4.28: Summary of Findings (CFA): Export Performance (EXP)**

| Item Wording   |         | Initial Standardized Loadings | Final Standardized Loadings |       |       |       |  |
|--|---------|-------------------------------|-----------------------------|-------|-------|-------|--|
| Contribution of social media to the overall profit of your company. (EXP1)             |         | 0.932                         | 0.932                       |       |       |       |  |
| Contribution of social media to the market share. (EXP3)                               |         | 0.951                         | 0.951                       |       |       |       |  |
| Contribution of social media to the export sales. (EXP4)                               |         | 0.920                         | 0.920                       |       |       |       |  |
| Fit Indices  |         |                               |                             |       |       |       |  |
|  | CMIN/DF | GFI                           | AGFI                        | CFI   | TLI   | RMSEA |  |
| <b>Final</b>   | 0.201   | 0.999                         | 0.994                       | 1.000 | 1.005 | 0.000 |  |
| <b>Composite Construct Reliability: 0.947; Average Variance Extracted (AVE): 0.857</b> |         |                               |                             |       |       |       |  |

The next step was to test the CFA for the whole measurement model. All standardised regression weights (factor loadings) were above 0.60. The CFA results indicated a good fit to the data ( $\chi^2/df=1.948$ , GFI=0.863, CFI=0.923, TLI=0.910, RMSEA=0.059). All the t-values were significant at  $p<.0001$  (See Appendix N and Appendix O).

## 4.5 Investigation of Hypotheses

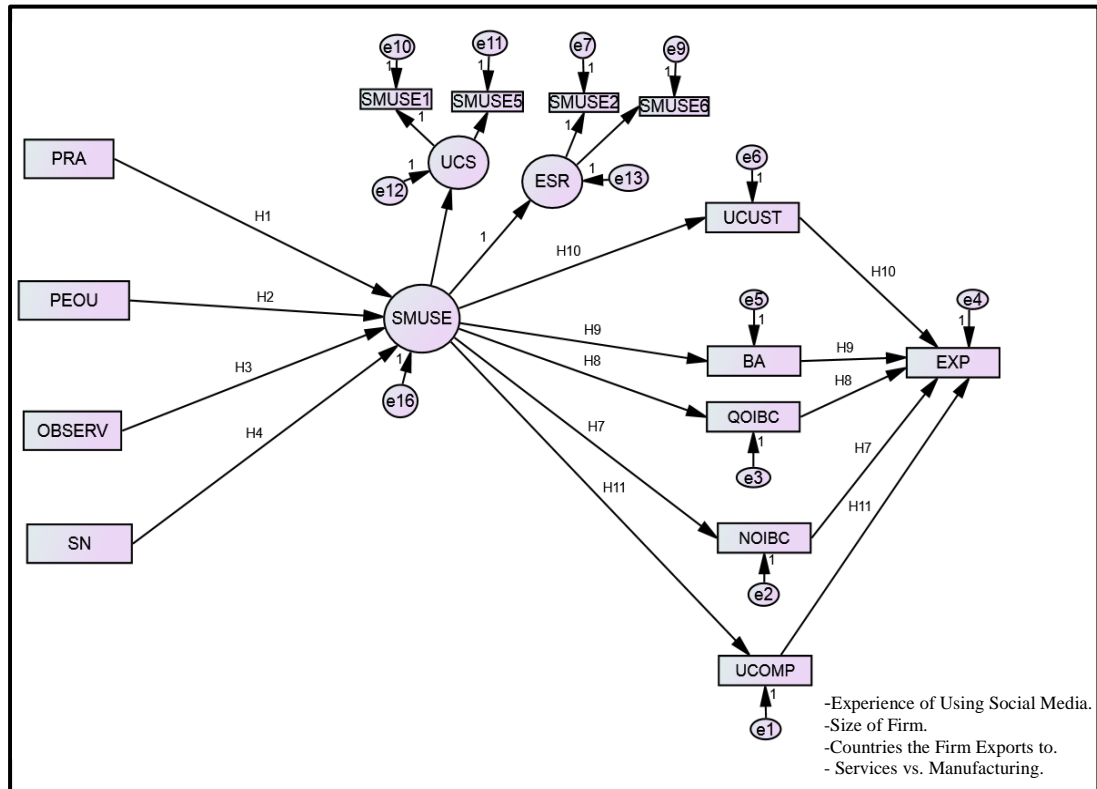
After establishing and confirming the validity and reliability of the measurement model, the next stage of analysis was to test the causal relationships between the research constructs (structural model) (Hair et al., 2010; Schumacker and Lomax, 2010). SEM helps to define the relationships among the latent constructs (Byrne, 2010).

The latent constructs, used in the proposed theoretical model, were classified in two main categories: exogenous; and endogenous variables. Exogenous variables were Perceived Ease of Use (PEOU), Perceived Relative Advantage (PRA),

Observability (OBSERV) and Subjective Norms (SN) while the endogenous variables were SMUSE1, SMUSE2, SMUSE5 and SMUSE6; these represented both established and strengthened relationships with existing customers abroad (ESR). Also, there were understanding new customers abroad and selling them (UCS) as two sub-factors of the SMUSE construct after deleting SMUSE3 since the MI showed that there was significant covariance between the measurement error for that item and UCS, the number of international business contacts (NOIBC), quality of international business contacts (QOIBC), brand awareness (BA), understanding customers' views and preferences (UCUST), understanding competition in different markets (UCOMP) and export performance (EXP). Figure 4.7 depicts the overall structural model.

The fit indices indicated that the hypothesized structural model provided the good fit to the data. Although the likelihood ratio chi-square ( $\chi^2 = 246.911$ ;  $df = 65$ ;  $p = 0.000$ ) was significant ( $p < 0.001$ ), other fit measures showed that model adequately fitted the observed data ( $\chi^2/df$ ) was within the accepted value ( $3.799$ )  $< 5$  (Hair et al., 2010; Kline, 2005; Byrne, 2010), the absolute fit measures i.e. GFI and RMSEA were 0.892 and 0.101 respectively indicating the accepted fit of the model. As for GFI, it was almost 0.90 which represented the cut off value. On the other hand, it was accepted for the RMSEA because RMSEA of between 0.08 and 0.10 considered as a suggested fit level and below 0.08 showed a good fit (MacCallum et al, 1996; El-Gohary, 2012). The incremental fit measures, i.e. CFI and TLI were 0.933 and 0.907 respectively; these were above the minimum requirement showing adequate fit between 0.90 and 0.95 (Kline, 2005; Hair et al., 2010), and the parsimony fit measure, i.e. AGFI, was 0.826; this was, also, above the cut-off point of  $> .80$  (Hair et al., 2010; Straub et al., 2004).

**Figure 4.7: Proposed Structural Model**



### 4.5.1 Hypotheses Investigation: Direct Relationships

Having demonstrated a satisfactory structural model fit as previously presented in section 4.5, the next step was to test and examine the research hypotheses. To do this, AMOS was employed to perform structural equation modelling. However, before examining the research hypotheses, the Squared Multiple Correlation (SMC) for the structural equations was evaluated. This SMC, which gave the percentage of the variance in the latent dependent variable(s) accounted for by the latent independent variables. The SMC value for EXP was 0.776 which illustrated that the model explained about 80% of the variance associated with using social media for exporting. In addition, it was found that 66% of the variance in SMUSE was determined by PEOU, PRA, OBERV and SN. Table 4.29 shows the results of the hypothesized direct relationships for the SEM of the proposed research model followed by examining the mediating and moderating effects within the same model.

**Table 4.29: Path Results and Hypotheses Testing**

| Hypothesis | Path (relationship) | Standardized $\beta$ | t-value  | Result        |
|------------|---------------------|----------------------|----------|---------------|
| <i>H1</i>  | PRA → SMUSE         | 0.498                | 7.921*** | Supported     |
| <i>H2</i>  | PEOU → SMUSE        | 0.303                | 5.449*** | Supported     |
| <i>H3</i>  | OBSERV → SMUSE      | -0.018               | -0.423   | Not Supported |
| <i>H4</i>  | SN → SMUSE          | 0.164                | 3.206**  | Supported     |

(\*\* $p < 0.01$ , \*\*\* $p < 0.001$ ).

Table 4.29 shows that, with the exception of the relationship between OBSERV and SMUSE, there was significant support for all the hypothesised direct relationships in the model. When the Critical Ratio (CR or t-value), which was obtained by dividing the regression weight estimate by the estimate of its standard error (S.E), was higher than 1.96 for an estimate (regression weight), then, the parameter coefficient value was statistically significant at the 0.05 level (Hair et. al., 2006). The next points explain the main results in more detail.

#### **I. Perceived Relative Advantage and Social Media Use**

The results demonstrated support for hypothesis *H1* proposed in the model. The standardized regression weight and critical ratio for PRA to SMUSE were 0.498 and 7.921 respectively, suggesting that this path was statistically significant at the  $p = 0.001$  ( $\beta = 0.498$ ,  $p < 0.001$ ).

#### **II. Perceived Ease of Use and Social Media Use**

The results demonstrated support for hypothesis *H2* proposed in the model. The standardized regression weight and critical ratio for PEOU to SMUSE were 0.303 and 5.449 respectively, suggesting that this path was statistically significant at the  $p = 0.001$  ( $\beta = 0.303$ ,  $p < 0.001$ ).

#### **III. Observability and Social Media Use**

The results did not demonstrate support for hypothesis *H3* proposed in the model. The standardized regression weight and critical ratio for OBSERV to SMUSE were -0.018 and -0.423 respectively, suggesting that this path was statistically non-significant.

#### **IV. Subjective Norms and Social Media Use**

The results demonstrated support for hypothesis *H4* proposed in the model. The standardized regression weight and critical ratio for SN to SMUSE were

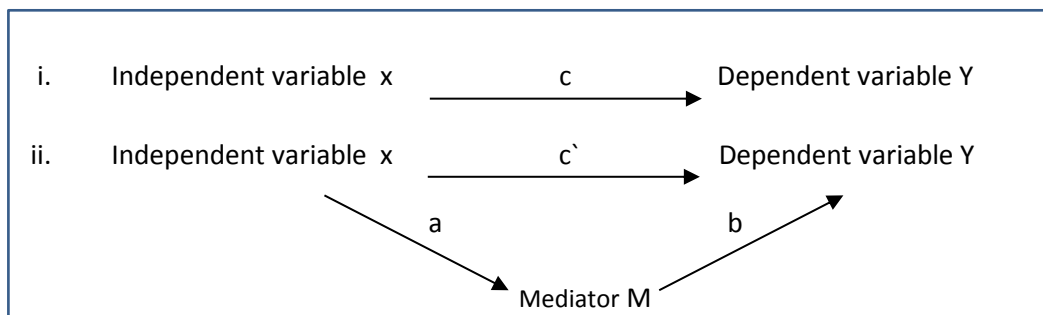
0.164 and 3.206 respectively, suggesting that this path was statistically significant at the  $p = 0.01$  ( $\beta = 0.164, p < 0.01$ ).

#### 4.5.2 Hypotheses Investigation: Indirect Relationships

Mediation effect or indirect effect means that the effect of the independent (exogenous) variable X on the dependent (endogenous) variable Y goes through a mediator (another endogenous variable) M (Hair et al., 2010).

To illustrate the concept of mediation, Figure 4.8 depicts a simple mediation model. In that figure, Path c represents a direct simple regression between X and Y. Figure 4.8 shows, also, the relationship between X and Y mediated by M. According to these mediated relationships: (a) shows the standardized path coefficient from the independent variable X to the mediating variable M; (b) shows the standardized path coefficient from the mediating variable M to the dependent variable Y; and, finally, (c') shows the standardized path coefficient from the independent variable X to the dependent variable Y.

**Figure 4.8: Direct and Indirect Effects**



According to the results of three regression equations used to estimate the coefficients of a, b, and c', the assessment of the mediation effect was achieved. Full mediation was achieved if there was no longer a significant direct effect of X on Y after finding a significant indirect effect. In contrast, if there remained a significant direct effect between X and Y after controlling for the mediator, then partial mediation was achieved (Hair et al., 2010).



The previous causal steps approach, proposed by Baron and Kenny (1986), was the most commonly used approach to assess the mediation. However, despite its simplicity, it suffered from serious limitations. Recent statistical-simulation studies showed that there was very little ability to detect mediated effects using the causal-step method (MacKinnon et al., 2002). Also, the test required that there was a significant overall relationship between X and Y for mediation to exist (MacKinnon and Fairchild, 2009). Hence, its disadvantages were great enough to recommend that it was not used and rigorous procedures were required to examine the magnitude of the indirect effect and its statistical significance (Preacher and Hayes, 2008).

The Sobel test, which is one of the product of coefficient approaches, is widely used. Due to the strict assumption of normality of the sample distribution of paths for the product of coefficient methods, the Sobel test may not provide conservative standard error estimates. Accordingly, these product of coefficient approaches require a large sample in order to be confident that the sampling distribution of  $(a*b)$  divided by its standard error is normal (Preacher and Hayes, 2008). In accordance with this view, Stone and Sobel (1990) found that, when they examined the estimations of indirect effect distribution, samples of less than 400 tended to skew positively. According to Preacher and Hayes (2008) and Shrout and Bolger (2002), this tends to weaken the product of coefficient method in terms of its power (Type 1 error).

Bootstrapping is a better alternative when managing small to moderate samples since it does not impose distributional assumption of a, b, or their product as bootstrapping approximates the sampling distribution of ab empirically, with no recourse to mathematical derivations (Preacher and Hayes, 2008). Hence, bootstrapping provides confidence intervals which cannot be obtained with the product of coefficients method, as the Sobel test and product of coefficients method assume symmetry of sampling distribution of ab (Lockwood and MacKinnon, 1998). However, there are a few disadvantages of bootstrapping. First, the number of resampling; which takes time, determines the accuracy of the confidence limits; however, this advantage exists no longer with the fast desktop computers. Second, the difficulty of gaining similar confidence limits if the same sample is subjected to bootstrapping several times (Lockwood and MacKinnon, 1998). This study used this

technique to produce an approximation of the sampling distribution of the product of a and b by taking a new bootstrap sample of size (n) by randomly sampling observations from the original data set, repeating this K times preferably 1000 times with 0.95 confidence interval and, finally, examining the distribution of (a\*b) that was generated from each bootstrap sample (Hair et al., 2010; Preacher and Hayes, 2008).

Direct effect with excluding the mediators was conducted first to obtain the standardized coefficient between the independent variable and the dependent variable. Hence, as shown in Table 4.30, the bootstrapping technique obtained the standardized coefficient for both direct and indirect effects with the existence of the mediator.

**Table 4.30: Direct and Indirect Effects**

| Direct Path   | Direct Effect | Indirect Path via Mediator | Direct Effect with the existence of Mediator | Indirect Effect     | Results        |
|---------------|---------------|----------------------------|--|---------------------|----------------|
| SMUSE and EXP | 0.790***      | SMUSE→ NOIBC→EXP           | 0.187 <sup>ns</sup>                          | 0.077 <sup>ns</sup> | No Mediation   |
|               |               | SMUSE→ QOIBC→EXP           | 0.076 <sup>ns</sup>                          | 0.205*              | Full Mediation |
|               |               | SMUSE→ UCUST→EXP           | 0.108 <sup>ns</sup>                          | 0.274*              | Full Mediation |
|               |               | SMUSE→ UCOMP→EXP           | 0.110 <sup>ns</sup>                          | 0.274**             | Full Mediation |

(\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ )

Table 4.30 shows that QOIBC, UCUST and UCOMP were found to fully mediate the relationship between SMUSE and EXP (\* $p < 0.05$ , \*\* $p < 0.01$ ). Thus, hypotheses *H8*, *H10*, *H11* considering the indirect effect of SMUSE on EXP through those constructs were supported. On the other hand there was no significant mediation for the NOIBC between the SMUSE and EXP. Thus, hypothesis *H7*, considering the indirect effect of SMUSE on EXP through NOIBC, was not supported. In addition, the direct effect without the existence of mediators (X→Y) and indirect path estimates (X→M→Y) were found to be statistically significant with the exception of the path from (BA) to (EXP) which was insignificant. Hence, it was excluded from the mediation analysis and, accordingly, *H9*, considering the indirect effect of SMUSE on EXP through BA, was not supported.

### **4.5.3 Hypotheses Investigation: Moderation Relations**

A moderating effect occurs when “a third variable or construct changes the relationship between two related variables/constructs” (Hair et al., 2010, p.770). The researcher used the Moderated Regression Analysis (MRA) and subgroup analysis. Both methods were used in a myriad of studies (Sharma et al. 1981). It is important to use both MRA and subgroup analysis in order to identify the presence of moderator variable and to capture the various types of moderator (La et al., 2004; Patterson et al., 2014).

The interaction effect, described in this section, followed a procedure in Sharma et al. (1981). They suggested the use of MRA to investigate whether the proposed moderator variable was either quasi- moderator or pure moderator or not a moderator or an independent variable (predictor). In order to identify moderating variables, the researcher needed to conduct the following three-step process (Sharma et al., 1981).

The first step examined the significance of the interaction between the hypothesized moderator variable and the predictor variable. The second step checked the relationship between the moderator and the dependent variable. The third step checked the relationship between the moderator and the independent variable. If the moderator was related to the dependent variable, it was a quasi-moderator; and, if it was related to the independent variable, it was an antecedent (exogenous) variable. If the moderator was unrelated to the dependent variable, it was a pure moderator. Alternatively, if it was unrelated to the independent variable, a subgroup analysis needed to be conducted in order to determine if the hypothesized moderator was a homologizer or, if not, it was not a moderator.

In order to avoid the problem of multicollinearity in MRA, the predictor and moderating variables were mean-centred before the interaction variables were calculated (Little et al., 2006; Aiken et al., 1991). This mean centring alleviated the instability of regression estimates and ensured that standard errors were stable and robust (Aiken et al., 1991). In addition, mean centring gave more practical meaning to the regression coefficients since the zero point of Z was its average value rather than arbitrary values (Little et al., 2006). The mean centring was achieved by subtracting the variable mean from all observations.

Multi-group invariance analysis is a SEM framework for the purpose of testing types of differences between similar models estimated for different groups of respondents (above the mean and below the mean of specific construct) (Hair et al., 2010). Different approaches can be used to split the sample into groups based on mean or median. However, when the sample is normally distributed, mean and median will be the same value as the median may be a better mechanism to split the sample in case of outliers existence which might pull the mean in one direction (Malhorta, 1996; Hair et al., 2013). Hence the researcher used the mean for splitting the sample. In order to conduct the multi-group invariance analysis, the following three stages were undertaken:

- I. The first stage aimed to test the validity of the scores for each group and the equality of meanings of the structure model across the examined groups by checking for the model fit statistics (Hair et al., 2010).
- II. The second stage aimed to establish configural (baseline model) and scalar (factorial) invariances. The aim of the baseline model was to examine whether the same observed variable was a measure of the hypothesized latent variable across the different groups. So, it was expected to get similar but not identical factor loadings. The baseline model had no between-group invariance constraints on estimated parameters. Hence, different parameters values might exist across groups (Teo et al., 2009). The configural invariance was achieved when the baseline model structure was invariant across groups. The configural model tested the overall model fit across groups simultaneously and served, also, as a base against which all subsequent models were compared (Bollen, 1998). The scalar invariance meant that the “the amounts of a construct (i.e. mean) have the same meaning between the different samples being considered” (Teo et al., 2009, p.1002). Thus, the intercepts of all indicators were constrained to be equal.
- III. The third stage aimed to test the moderation effect for individual factors only after the null hypothesis of equality was rejected. Hence, by placing constraints on each one of these factors in sequence and by comparing the ( $\chi^2$ ) value for every constraint with the ( $\chi^2$ ) for the baseline model, the significance of the change was assessed.

The following are the results of the MRA and the multi-group invariance analysis for the hypothesized moderators.

#### 4.5.3.1 Moderating Effects of Customer Engagement

##### I. Moderation Regression Analysis (MRA) of Customer Engagement (CE) as a Moderator between SMUSE and NOIBC, QOIBC, BA, UCUST and UCOPM

##### - Moderation Regression Analysis (MRA) of Customer Engagement (CE) between SMUSE and NOIBC

Table 4.31 shows the MRA with NOIBC as the dependent variable. The analysis shows that SMUSE and CE had a significant influence on NOIBC and that there was significant interaction between the two variables. Since there was a significant relationship between the moderator variable and the dependent variable, the moderator variable (CE) was classified as a quasi- moderator (Sharma et al., 1981).

**Table 4.31: Moderated Regression Analysis (MRA) with (NOIBC) as Dependent Variable**

| Predictors              | Model 1  | Model 2  | Model 3  |
|-------------------------|----------|----------|----------|
| SMUSE                   | 0.677*** | 0.486*** | 0.506*** |
| CE                      |          | 0.332*** | 0.308*** |
| Interaction             |          |          | 0.109*   |
| R <sup>2</sup>          | 0.458    | 0.532    | 0.543    |
| Adjusted R <sup>2</sup> | 0.456    | 0.528    | 0.538    |

(\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ )

##### - Moderation Regression Analysis (MRA) of Customer Engagement (CE) between SMUSE and QOIBC

Table 4.32 shows the MRA with QOIBC as the dependent variable. The analysis shows that SMUSE and CE had a significant influence on QOIBC and that there was significant interaction between the two variables. Since there was a significant relationship between the moderator variable and the dependent variable, the moderator variable (CE) was classified as a quasi- moderator (Sharma et al., 1981).

**Table 4.32: Moderated Regression Analysis (MRA) with (QOIBC) as Dependent Variable**

| Predictors              | Model 1  | Model 2  | Model 3  |
|-------------------------|----------|----------|----------|
| SMUSE                   | 0.627*** | 0.375*** | 0.396*** |
| CE                      |          | 0.440*** | 0.415*** |
| Interaction             |          |          | 0.116**  |
| R <sup>2</sup>          | 0.394    | 0.524    | 0.537    |
| Adjusted R <sup>2</sup> | 0.391    | 0.520    | 0.532    |

(\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ )

**- Moderation Regression Analysis (MRA) of Customer Engagement (CE) between SMUSE and BA**

Table 4.33 shows the MRA with the BA as the dependent variable. The analysis shows that SMUSE and CE had a significant influence on BA and that there was a significant interaction between the two variables. This meant that CE was a moderator (Sharma et al., 1981). Since there was a significant relationship between the moderator variable and the dependent variable, the moderator variable (CE) was classified as a quasi- moderator (Sharma et al., 1981).

**Table 4.33: Moderated Regression Analysis (MRA) with (BA) as Dependent Variable**

| Predictors              | Model 1  | Model 2  | Model 3  |
|-------------------------|----------|----------|----------|
| SMUSE                   | 0.649*** | 0.417*** | 0.426*** |
| CE                      |          | 0.405*** | 0.393*** |
| Interaction             |          |          | 0.153*   |
| R <sup>2</sup>          | 0.421    | 0.531    | 0.533    |
| Adjusted R <sup>2</sup> | 0.419    | 0.527    | 0.528    |

(\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ )

**- Moderation Regression Analysis (MRA) of Customer Engagement (CE) between SMUSE and UCUST**

Table 4.34 shows the MRA with UCUST as the dependent variable. The analysis shows that SMUSE and CE had a significant influence on UCUST and that there was a significant interaction between the two variables. Since there was a significant relationship between the moderator variable and the dependent variable, the moderator variable (CE) was classified as a quasi- moderator (Sharma et al., 1981).

**Table 4.34: Moderated Regression Analysis (MRA) with (UCUST) as Dependent Variable**

| Predictors              | Model 1  | Model 2  | Model 3  |
|-------------------------|----------|----------|----------|
| SMUSE                   | 0.632*** | 0.383*** | 0.400*** |
| CE                      |          | 0.434*** | 0.414*** |
| Interaction             |          |          | 0.094*   |
| R <sup>2</sup>          | 0.400    | 0.526    | 0.535    |
| Adjusted R <sup>2</sup> | 0.397    | 0.523    | 0.530    |

(\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ )

**- Moderation Regression Analysis (MRA) of Customer Engagement (CE) between SMUSE and UCOMP**

Table 4.35 shows the MRA with UCOMP as the dependent variable. The analysis shows that SMUSE and CE had a significant influence on UCOMP and that there was a significant interaction between the two variables. Since there was a significant

relationship between the moderator variable and the dependent variable, the moderator variable (CE) was classified as a quasi- moderator (Sharma et al., 1981).

**Table 4.35: Moderated Regression Analysis (MRA) with (UCOMP) as Dependent Variable**

| Predictors              | Model 1  | Model 2  | Model 3  |
|-------------------------|----------|----------|----------|
| SMUSE                   | 0.551*** | 0.240*** | 0.266*** |
| CE                      |          | 0.543*** | 0.511*** |
| Interaction             |          |          | 0.147**  |
| R <sup>2</sup>          | 0.304    | 0.502    | 0.523    |
| Adjusted R <sup>2</sup> | 0.301    | 0.498    | 0.517    |

(\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ )

## II. Multi-group Analysis of Customer Engagement (CE) as a Moderator between SMUSE and NOIBC, QOIBC, BA, UCUST and UCOPM

The data was split into two groups based on the mean of the customer engagement's level: below the mean (CE1) with group size 141; and above the mean (CE2) with group size 136. Firstly, the structure model was applied separately to both groups to check the model fit statistics (Byrne, 2010). Table 4.36 below shows the results of both groups; this illustrates that both samples showed an acceptable model fit.

**Table 4.36: Structural Model Fit Indices- (CE) Groups**

| <i>Structural Model Fit Indices</i> | CMIN/DF | GFI   | AGFI  | CFI   | TLI   | RMSEA |
|-------------------------------------|---------|-------|-------|-------|-------|-------|
| <i>Model</i>                        |         |       |       |       |       |       |
| <b>Model 1 (CE1)</b>                | 2.499   | 0.902 | 0.815 | 0.922 | 0.898 | 0.103 |
| <b>Model 2 (CE2)</b>                | 1.957   | 0.929 | 0.864 | 0.969 | 0.953 | 0.084 |

Having satisfied the model fit for both groups from the previous stage, the next stage of analysis was to examine both models simultaneously in order to obtain the baseline and structural models as shown in Table 4.37. The results of the two models, obtained from the multi-group invariance test (baseline and structural models), show that:

- (1) The baseline model, where all parameters of both models were estimated freely, demonstrated an acceptable model fit which indicated that there was a similar pattern of constrained and unconstrained parameters in both samples.
- (2) The structural model, where the intercepts of all indicators were constrained to be equal, demonstrated an acceptable model fit. In order to test the scalar

invariance, ( $X^2$ ) difference test showed a significant value; this meant that, in the overall model (scalar), both groups (CE1 and CE2) were different.

**Table 4.37: Configural and Structural Models' fit Indices- (CE) Groups**

| <i>Model Fit Indices</i>           | $X^2$ (df)  | $X^2/df$ | CFI   | TLI   | RMSEA | $\Delta X^2$ ( $\Delta df$ ) |
|------------------------------------|-------------|----------|-------|-------|-------|------------------------------|
| <i>Model</i>                       |             |          |       |       |       |                              |
| <b>Configural (Baseline) Model</b> | 129.229(58) | 2.228    | 0.951 | 0.924 | 0.067 | .....                        |
| <b>Structural Weights</b>          | 213.147(71) | 3.002    | 0.903 | 0.901 | 0.085 | 83.918(13) sg                |

Since the researcher was looking for significant differences in the pre-hypothesized relationships, the parameters of each one of these proposed relationships was constrained while the other model's parameters were estimated freely. The researcher followed these steps one by one with each relationship. Table 4.38 below illustrates the results.

**Table 4.38: Configural, Individual Constrained Paths' models' fit Indices and Standardized Estimates for the Structural Model- (CE) Groups**

| <i>Model Fit Indices</i>                    |                               |                               | $X^2$ (df)  | $X^2/df$ | CFI   | TLI   | RMSEA | $\Delta X^2$ ( $\Delta df$ ) |
|---|-------------------------------|-------------------------------|-------------|----------|-------|-------|-------|------------------------------|
| <i>Model</i>                                |                               |                               |             |          |       |       |       |                              |
| <b>Configural (Baseline) Model</b>          |                               |                               | 129.229(58) | 2.228    | 0.951 | 0.924 | 0.067 | .....                        |
| <b>Constrained Paths (relationship)</b>     | <b>CE1</b>                    | <b>CE2</b>                    |             |          |       |       |       |                              |
|   | <b>St. <math>\beta</math></b> | <b>St. <math>\beta</math></b> |             |          |       |       |       |                              |
| <b>SMUSE <math>\rightarrow</math> NOIBC</b> | 0.810***                      | 0.819***                      | 139.727(59) | 2.368    | 0.945 | 0.916 | 0.071 | 10.498(1) sg                 |
| <b>SMUSE <math>\rightarrow</math> QOIBC</b> | 0.801***                      | 0.808***                      | 141.095(59) | 2.391    | 0.944 | 0.914 | 0.071 | 11.866(1) sg                 |
| <b>SMUSE <math>\rightarrow</math> BA</b>    | 0.749***                      | 0.846***                      | 136.379(59) | 2.312    | 0.947 | 0.919 | 0.069 | 7.15(1) sg                   |
| <b>SMUSE <math>\rightarrow</math> UCUST</b> | 0.842***                      | 0.881***                      | 137.983(59) | 2.339    | 0.946 | 0.918 | 0.070 | 8.754(1) sg                  |
| <b>SMUSE <math>\rightarrow</math> UCOMP</b> | 0.617***                      | 0.815***                      | 145.976(59) | 2.474    | 0.941 | 0.909 | 0.073 | 16.747(1) sg                 |

As seen from Table 4.38, there were significant differences between the baseline model and all the constrained paths' models. Firstly, the constrained SMUSE  $\rightarrow$  NOIBC path model showed a significant difference from the baseline model ( $\Delta x^2 = 10.498$ ,  $df=1$ ); this indicated that CE was a moderator between SMUSE and NOIBC. Thus, the MRA result as mentioned in Table 4.31 was confirmed by the results of multi-group analysis as shown in the previous table (Table 4.38). Secondly, the constrained SMUSE  $\rightarrow$  QOIBC path model showed a significant difference from the baseline model ( $\Delta x^2 = 11.866$ ,  $df=1$ ); this indicated that CE was a moderator between SMUSE and QOIBC. Thus, the MRA result as presented in Table 4.32 was confirmed. The constrained SMUSE  $\rightarrow$  BA path model showed a significant difference from the baseline model ( $\Delta x^2 = 7.15$ ,  $df=1$ ); this indicated that CE was a moderator between SMUSE and BA. Thus, the MRA result as presented in Table 4.33 was confirmed. In addition, the constrained SMUSE  $\rightarrow$  UCUST path model showed a significant



difference from the baseline model ( $\Delta x^2 = 8.754$ ,  $df=1$ ); this indicated that CE was a moderator between SMUSE and UCUST. Thus, the MRA result as presented in Table 4.34 was confirmed. Finally, the constrained SMUSE  $\rightarrow$  UCOMP path model showed a significant difference from the baseline model ( $\Delta x^2 = 16.747$ ,  $df=1$ ); this indicated that CE was a moderator between SMUSE and UCOMP. Thus, the MRA result as presented in Table 4.35 was confirmed. The results, also, indicated that all paths in the structural model were found to be stronger for the CE2 group than for the CE1 group. Thus, according to the MRA and multi-group analysis results, along with the standardized estimates for the structural model, hypotheses *H12*, *H13*, *H14*, *H15*, and *H16* were confirmed.

#### 4.5.3.2 Moderating Effects of Cultural Adaptation

##### I. Moderation Regression Analysis (MRA) of Cultural Adaptation (CA) as a Moderator between UCUST and EXP, UCOPM and EXP

##### - Moderation Regression Analysis (MRA) of Cultural Adaptation (CA) between UCUST and EXP

Table 4.39 shows the MRA with EXP as the dependent variable. The analysis shows that UCUST and CA had a significant influence on EXP and that there was a significant interaction between the two variables. Since there was a significant relation between the moderator variable and the dependent variable, the moderator variable (CA) was classified as a quasi-moderator (Sharma et al., 1981).

**Table 4.39: Moderated Regression Analysis (MRA) with (EXP) as Dependent Variable**

| Predictors                    | Model 1  | Model 2  | Model 3  |
|-------------------------------|----------|----------|----------|
| UCUST                         | 0.822*** | 0.579*** | 0.580*** |
| CA                            |          | 0.337*** | 0.295*** |
| Interaction                   |          |          | 0.109**  |
| <b>R<sup>2</sup></b>          | 0.676    | 0.730    | 0.741    |
| <b>Adjusted R<sup>2</sup></b> | 0.675    | 0.728    | 0.738    |

(\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ )

##### - Moderation Regression Analysis (MRA) of Cultural Adaptation (CA) between UCOMP and EXP

Table 4.40 shows the MRA with the EXP as the dependent variable. The analysis shows that UCOMP and CA had a significant influence on EXP and that there was a

significant interaction between the two variables. Since there was a significant relationship between the moderator variable and the dependent variable, the moderator variable (CA) was classified as a quasi-moderator (Sharma et al., 1981).

**Table 4.40: Moderated Regression Analysis (MRA) with (EXP) as Dependent Variable**

| Predictors              | Model 1  | Model 2  | Model 3  |
|-------------------------|----------|----------|----------|
| UCOMP                   | 0.797*** | 0.527*** | 0.522*** |
| CA                      |          | 0.388*** | 0.345*** |
| Interaction             |          |          | 0.136*** |
| R <sup>2</sup>          | 0.635    | 0.713    | 0.729    |
| Adjusted R <sup>2</sup> | 0.633    | 0.711    | 0.726    |

(\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ )

## II. Multi-group Analysis of Cultural Adaptation (CA) as a Moderator between UCUST and EXP, UCOPM and EXP

The data was split into two groups based on the mean of the cultural adaptation's level: below the mean (CA1) with group size 173; and above the mean (CA2) with group size 104. Firstly, the structure model was applied separately to both groups to check the model fit statistics (Byrne, 2010). Table 4.41 below shows the results of both groups; this illustrates that both samples showed an acceptable model fit.

**Table 4.41: Structural Model Fit Indices- (CA) Groups**

| <i>Structural Model Fit Indices</i> | CMIN/DF | GFI   | AGFI  | CFI   | TLI   | RMSEA |
|-------------------------------------|---------|-------|-------|-------|-------|-------|
| <i>Model</i>                        |         |       |       |       |       |       |
| Model 1 (CA1)                       | 2.832   | 0.883 | 0.779 | 0.915 | 0.897 | 0.103 |
| Model 2 (CA2)                       | 2.675   | 0.909 | 0.827 | 0.937 | 0.903 | 0.099 |

Having satisfied the model fit for both groups from the previous stage, the next stage of analysis was to examine both models simultaneously to obtain the baseline and structural models as shown in Table 4.42. The results of the two models, obtained from the multi-group invariance test (baseline and structural models), shows that:

- (1) The baseline model, where all parameters of both models were estimated freely, showed an acceptable model fit which indicated that there was a similar pattern of constrained and unconstrained parameters in both samples.
- 2) The structural model, where the intercepts of all indicators were constrained to be equal, showed an acceptable model fit. In order to test the scalar invariance, ( $\chi^2$ ) difference test showed a significant value; this meant that, in the overall model (scalar), both groups (CA1 and CA2) were different.

**Table 4.42: Configural and Structural Models' fit Indices- (CA) Groups**

| <i>Model Fit Indices</i>           | $X^2$ (df)  | $X^2/df$ | CFI   | TLI   | RMSEA | $\Delta X^2$ ( $\Delta df$ ) |
|------------------------------------|-------------|----------|-------|-------|-------|------------------------------|
| <i>Model</i>                       |             |          |       |       |       |                              |
| <b>Configural (Baseline) Model</b> | 187.118(60) | 3.119    | 0.909 | 0.901 | 0.088 | .....                        |
| <b>Structural Weights</b>          | 228.181(72) | 3.169    | 0.901 | 0.895 | 0.089 | 41.063(12) sg                |

Since the researcher was looking for significant differences in the pre-hypothesized relationships, the parameters of each one of these proposed relationships was constrained while the other model's parameters were estimated freely. The researcher followed these steps one by one for each relationship. Table 4.43 below illustrates the results.

**Table 4.43: Configural, Individual Constrained Paths' models' fit Indices and Standardized Estimates for the Structural Model- (CA) Groups**

| <i>Model Fit Indices</i>                |                               |                               | $X^2$ (df)  | $X^2/df$ | CFI   | TLI   | RMSEA | $\Delta X^2$ ( $\Delta df$ ) |
|---|-------------------------------|-------------------------------|-------------|----------|-------|-------|-------|------------------------------|
| <i>Model</i>                            |                               |                               |             |          |       |       |       |                              |
| <b>Configural (Baseline) Model</b>      |                               |                               | 187.118(60) | 3.119    | 0.909 | 0.902 | 0.088 | .....                        |
| <b>Constrained Paths (relationship)</b> | <b>CA1</b>                    | <b>CA2</b>                    |             |          |       |       |       |                              |
|   | <b>St. <math>\beta</math></b> | <b>St. <math>\beta</math></b> |             |          |       |       |       |                              |
| <b>UCUST→ EXP</b>                       | 0.110**                       | 0.439***                      | 197.281(61) | 3.234    | 0.903 | 0.886 | 0.090 | 10.163(1) sg                 |
| <b>UCOMP→ EXP</b>                       | 0.206**                       | 0.440***                      | 195.411(61) | 3.203    | 0.904 | 0.897 | 0.090 | 8.293(1) sg                  |

As seen from Table 4.43, there were significant differences between the baseline model and all the constrained paths' models. Firstly, the constrained UCUST→ EXP path model showed a significant difference from the baseline model ( $\Delta x^2 = 10.163$ ,  $df=1$ ); this indicated that CA was a moderator between UCUST and EXP. Thus, the MRA result as shown in Table 4.39 was confirmed by the results of multi-group analysis as shown in the previous table (Table 4.43). Also, the constrained UCOMP→ EXP path model showed a significant difference from the baseline model ( $\Delta x^2 = 8.293$ ,  $df=1$ ); this indicated that CA was a moderator between UCOMP and EXP. Thus, the MRA result as presented in Table 4.40 was confirmed. The results from Table 4.43 indicated that all paths in the structural model were found to be stronger for the CA2 group than for the CA1 group. Thus, according to the MRA and multi-group analysis results, along with the standardized estimates for the structural model, hypotheses *H17* and *H18* were confirmed.

### 4.5.3.3 Moderating Effects of Training

#### I. Moderation Regression Analysis (MRA) of Training (TRAIN) as a moderator between PEOU, PRA, SN and SMUSE

##### - Moderation Regression Analysis (MRA) of Training (TRAIN) as a Moderator between PEOU and SMUSE

Table 4.44 shows the MRA with SMUSE as the dependent variable. The analysis shows that PEOU and TRAIN had a significant influence on SMUSE and that the interaction between the two variables did not. The Pearson correlation test did not imply a significant relationship between the proposed moderator and the independent variable. Accordingly, multi-group analysis was needed to determine the moderating effect (Sharma et al., 1981).

**Table 4.44: Moderated Regression Analysis (MRA) with (SMUSE) as Dependent Variable**

| Predictors              | Model 1  | Model 2  | Model 3  |
|-------------------------|----------|----------|----------|
| PEOU                    | 0.559*** | 0.392*** | 0.419*** |
| TRAIN                   |          | 0.307*** | 0.271*** |
| Interaction             |          |          | 0.076    |
| R <sup>2</sup>          | 0.312    | 0.378    | 0.383    |
| Adjusted R <sup>2</sup> | 0.310    | 0.374    | 0.376    |

(\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ )

##### - Moderation Regression Analysis (MRA) of Training (TRAIN) as a Moderator between PRA and SMUSE

Table 4.45 shows the MRA with SMUSE as the dependent variable. The analysis shows that PRA and TRAIN had a significant influence on SMUSE and that the interaction between the two variables did not. The Pearson correlation test did not imply a significant relationship between the proposed moderator and the independent variable. Accordingly, multi-group analysis was needed to determine the moderating effect (Sharma et al., 1981).

**Table 4.45: Moderated Regression Analysis (MRA) with (SMUSE) as Dependent Variable**

| Predictors              | Model 1  | Model 2  | Model 3  |
|-------------------------|----------|----------|----------|
| PRA                     | 0.700*** | 0.595*** | 0.602*** |
| TRAIN                   |          | 0.186*** | 0.160**  |
| Interaction             |          |          | 0.074    |
| R <sup>2</sup>          | 0.489    | 0.513    | 0.518    |
| Adjusted R <sup>2</sup> | 0.488    | 0.510    | 0.513    |

(\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ )

- **Moderation Regression Analysis (MRA) of Training (TRAIN) as a Moderator between SN and SMUSE**

Table 4.46 shows the MRA with SMUSE as the dependent variable. The analysis shows that SN and TRAIN had a significant influence on SMUSE and that there was significant interaction between the two variables. Since there was a significant relationship between the moderator variable and the dependent variable, the moderator variable (TRAIN) was classified as a quasi-moderator (Sharma et al., 1981).

**Table 4.46: Moderated Regression Analysis (MRA) with (SMUSE) as Dependent Variable**

| Predictors              | Model 1  | Model 2  | Model 3  |
|-------------------------|----------|----------|----------|
| SN                      | 0.535*** | 0.393*** | 0.383*** |
| TRAIN                   |          | 0.368*** | 0.382**  |
| Interaction             |          |          | 0.201*   |
| R <sup>2</sup>          | 0.286    | 0.401    | 0.402    |
| Adjusted R <sup>2</sup> | 0.284    | 0.397    | 0.395    |

(\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ )

**II. Multi-group Analysis of Training (TRAIN) as a Moderator between PEOU, PRA, SN and SMUSE**

The data was split into two groups based on the level of training: below the mean (TRAIN1) with group size 127; and above the mean (TRAIN2) with group size 150. Firstly, the structure model was applied separately to both groups to check the model fit statistics (Byrne, 2010). Table 4.47 below shows the results of both groups; this illustrates that both samples showed an acceptable model fit.

**Table 4.47: Structural Model Fit Indices- (TRAIN) Groups**

| <i>Structural Model Fit Indices</i> | CMIN/DF | GFI   | AGFI  | CFI   | TLI   | RMSEA |
|-------------------------------------|---------|-------|-------|-------|-------|-------|
| <i>Model</i>                        |         |       |       |       |       |       |
| <b>Model 1 (TRAIN 1)</b>            | 1.672   | 0.969 | 0.908 | 0.979 | 0.951 | 0.067 |
| <b>Model 2 (TRAIN 2)</b>            | .894    | 0.979 | 0.938 | 1.000 | 1.020 | 0.000 |

Having satisfied the model fit for both groups from the previous stage, the next stage of analysis was to examine both models simultaneously to obtain the baseline and structural models as shown in Table 4.48. The results of the two models, obtained from the multi-group invariance test (baseline and structural models), shows that:

- (1) The baseline model, where all parameters of both models were estimated freely, showed an acceptable model fit; this indicated that there was a similar pattern of constrained and unconstrained parameters in both samples.
- (2) The structural model, where the intercepts of all indicators were constrained to be equal, showed an acceptable model fit. In order to test the scalar invariance, an ( $X^2$ ) difference test showed a significant value, this meant that, in the overall model (scalar), both groups (TRAIN1 and TRAIN2) were different.

**Table 4.48: Configural and Structural Models' fit Indices- (TRAIN) Groups**

| <i>Model Fit Indices</i>           | $X^2$ (df) | $X^2/df$ | CFI   | TLI   | RMSEA | $\Delta X^2$ ( $\Delta df$ ) |
|------------------------------------|------------|----------|-------|-------|-------|------------------------------|
| <i>Model</i>                       |            |          |       |       |       |                              |
| <b>Configural (Baseline) Model</b> | 30.797(24) | 1.283    | 0.987 | 0.970 | 0.032 | .....                        |
| <b>Structural Weights</b>          | 60.739(31) | 1.959    | 0.944 | 0.899 | 0.059 | 29.942(7) sg                 |

Since the researcher was looking for significance differences in the pre-hypothesized relationships, the parameters of each one of these proposed relationships was constrained while the other model's parameters were estimated freely estimated. The researcher followed these steps one by one for each relationship. Table 4.49 below illustrates the results.

**Table 4.49: Configural, Individual Constrained Paths' models' fit Indices and Standardized Estimates for the Structural Model- (TRAIN) Groups**

| <i>Model Fit Indices</i>                   |                               |                               | $X^2$ (df) | $X^2/df$ | CFI   | TLI   | RMSEA | $\Delta X^2$ ( $\Delta df$ ) |
|--|-------------------------------|-------------------------------|------------|----------|-------|-------|-------|------------------------------|
| <i>Model</i>                               |                               |                               |            |          |       |       |       |                              |
| <b>Configural (Baseline) Model</b>         |                               |                               | 30.797(24) | 1.283    | 0.987 | 0.970 | 0.032 | .....                        |
| <b>Constrained Paths (relationship)</b>    | <b>TRAIN1</b>                 | <b>TRAIN2</b>                 |            |          |       |       |       |                              |
|  | <b>St. <math>\beta</math></b> | <b>St. <math>\beta</math></b> |            |          |       |       |       |                              |
| <b>PEOU <math>\rightarrow</math> SMUSE</b> | 0.211**                       | 0.202**                       | 31.864(25) | 1.275    | 0.987 | 0.971 | 0.032 | 1.067(1) ns                  |
| <b>PRA <math>\rightarrow</math> SMUSE</b>  | 0.602***                      | 0.749***                      | 30.832(25) | 1.233    | 0.989 | 0.975 | 0.029 | 0.035(1) ns                  |
| <b>SN <math>\rightarrow</math> SMUSE</b>   | 0.255***                      | 0.295***                      | 35.666(25) | 1.427    | 0.980 | 0.955 | 0.039 | 4.869(1) sg                  |

As seen from Table 4.49, there were insignificant differences between the baseline model and all the constrained paths' models with the exception of the SN  $\rightarrow$  SMUSE path model. Firstly, the constrained PEOU  $\rightarrow$  SMUSE path model showed an insignificant difference from the baseline model ( $\Delta x^2 = 1.067$ ,  $df=1$ ); this indicated that TRAIN was not a moderator between PEOU and SMUSE. Secondly, the constrained PRA  $\rightarrow$  SMUSE path model showed an insignificant difference from the baseline model ( $\Delta x^2 = 0.035$ ,  $df=1$ ); this indicated that TRAIN was not a moderator between PRA and SMUSE. Finally, the constrained SN  $\rightarrow$  SMUSE path model showed a significant difference from the baseline model ( $\Delta x^2 = 4.869$ ,  $df=1$ ); this indicated

that TRAIN was a homologizer moderator between SN and SMUSE. Thus, from the MRA results as shown in Tables 4.44, 4.45, 4.46, and the multi-group analysis as mentioned in Table 4.49, along with the standardized estimates for the structural model; which were found to be stronger for the TRAIN2 group than for the TRAIN1 group, hypothesis *H6* was partially supported.

#### 4.5.3.4 Moderating Effects of Innovativeness of the Firm

##### I. Moderation Regression Analysis (MRA) of Innovativeness of the Firm (INNOV) as a moderator between PEOU, PRA, SN and SMUSE

##### - Moderation Regression Analysis (MRA) of Innovativeness of the firm (INNOV) as a Moderator between PEOU and SMUSE

Table 4.50 shows the MRA with SMUSE as the dependent variable. The analysis shows that PEOU and INNOV had a significant influence on SMUSE and that the interaction between the two variables did not. The Pearson correlation test did not imply a significant relationship between the proposed moderator and the independent variable. Accordingly, multi-group analysis was needed to determine the moderating effect (Sharma et al., 1981).

**Table 4.50: Moderated Regression Analysis (MRA) with (SMUSE) as Dependent Variable**

| Predictors              | Model 1  | Model 2  | Model 3  |
|-------------------------|----------|----------|----------|
| PEOU                    | 0.559*** | 0.387*** | 0.408*** |
| INNOV                   |          | 0.351*** | 0.357*** |
| Interaction             |          |          | 0.018    |
| R <sup>2</sup>          | 0.312    | 0.406    | 0.417    |
| Adjusted R <sup>2</sup> | 0.310    | 0.401    | 0.411    |

(\**p* < 0.05, \*\**p* < 0.01, \*\*\**p* < 0.001)

##### - Moderation Regression Analysis (MRA) of Innovativeness of the Firm (INNOV) as a Moderator between PRA and SMUSE

Table 4.51 shows the MRA with SMUSE as the dependent variable. The analysis shows that PRA and INNOV had a significant influence on SMUSE and that the interaction between the two variables did not. The Pearson correlation test did not imply a significant relationship between the proposed moderator and the independent

variable. Accordingly, multi-group analysis was needed to determine the moderating effect (Sharma et al., 1981).

**Table 4.51: Moderated Regression Analysis (MRA) with (SMUSE) as Dependent Variable**

| Predictors              | Model 1  | Model 2  | Model 3  |
|-------------------------|----------|----------|----------|
| PRA                     | 0.700*** | 0.577*** | 0.565*** |
| INNOV                   |          | 0.224*** | 0.253**  |
| Interaction             |          |          | 0.072    |
| R <sup>2</sup>          | 0.489    | 0.524    | 0.538    |
| Adjusted R <sup>2</sup> | 0.488    | 0.521    | 0.533    |

(\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ )

### - Moderation Regression Analysis (MRA) of Innovativeness of the Firm (INNOV) as a Moderator between SN and SMUSE

Table 4.52 shows the MRA with SMUSE as the dependent variable. The analysis shows that SN and INNOV had a significant influence on SMUSE and that there was a significant interaction between the two variables. Since there was a significant relationship between the moderator variable and the dependent variable, the moderator variable (INNOV) was classified as a quasi-moderator (Sharma et al., 1981).

**Table 4.52: Moderated Regression Analysis (MRA) with (SMUSE) as Dependent Variable**

| Predictors              | Model 1  | Model 2  | Model 3  |
|-------------------------|----------|----------|----------|
| SN                      | 0.535*** | 0.361*** | 0.370*** |
| INNOV                   |          | 0.372*** | 0.384**  |
| Interaction             |          |          | 0.118**  |
| R <sup>2</sup>          | 0.286    | 0.394    | 0.399    |
| Adjusted R <sup>2</sup> | 0.284    | 0.390    | 0.392    |

(\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ )

## II. Multi-group Analysis of Innovativeness of the Firm (INNOV) as a Moderator between PEOU, PRA, SN and SMUSE

The data was split into two groups based on the level of innovation: below the mean (INNOV1) with group size 130; and above the mean (INNOV2) with group size 147. Firstly, the structure model was applied separately to both groups to check the model fit statistics (Byrne, 2010). Table 4.53 below shows the results of both groups; this illustrates that both samples showed an acceptable model fit.

**Table 4.53: Structural Model Fit Indices- (INNOV) Groups**

| <i>Structural Model Fit Indices</i> | CMIN/DF | GFI   | AGFI  | CFI   | TLI   | RMSEA |
|-------------------------------------|---------|-------|-------|-------|-------|-------|
| <i>Model</i>                        |         |       |       |       |       |       |
| Model 1 (INNOV1)                    | 1.140   | 0.977 | 0.932 | 0.966 | 0.990 | 0.031 |
| Model 2 (INNOV2)                    | 0.947   | 0.979 | 0.936 | 1.000 | 1.011 | 0.000 |



Having satisfying the model fit for both groups from the previous stage, the next stage of analysis was to examine both models simultaneously to obtain the baseline and structural models as shown in Table 4.54. The results of the two models, obtained from the multi-group invariance test (baseline and structural models), shows that:

- (1) The baseline model, where all parameters of both models were estimated freely, showed an acceptable model fit which indicated that there was a similar pattern of constrained and unconstrained parameters in both samples.
- (2) The structural model, where the intercepts of all indicators were constrained to be equal, showed an acceptable model fit. In order to test the scalar invariance, ( $X^2$ ) difference test showed a significant value; this meant that, in the overall model (scalar), both groups (INNOV1 and INNOV2) were different.

**Table 4.54: Configural and Structural Models' fit Indices- (INNOV) Groups**

| <i>Model Fit Indices</i>           | $X^2$ (df) | $X^2$ /df | CFI   | TLI   | RMSEA | $\Delta X^2$ ( $\Delta$ df) |
|------------------------------------|------------|-----------|-------|-------|-------|-----------------------------|
| <i>Model</i>                       |            |           |       |       |       |                             |
| <b>Configural (Baseline) Model</b> | 25.047(24) | 1.044     | 0.998 | 0.996 | 0.013 | .....                       |
| <b>Structural Weights</b>          | 68.080(31) | 2.196     | 0.932 | 0.878 | 0.066 | 43.033(7) sg                |

Since the researcher was looking for significance differences in the pre-hypothesized relationships, the parameters of each one of these proposed relationship was constrained while the other model's parameters were estimated freely. The researcher followed these steps one by one with each relationship. Table 4.55 below illustrates the results.

**Table 4.55: Configural, Individual Constrained Paths' models' fit Indices and Standardized Estimates for the Structural Model- (INNOV) Groups**

| <i>Model Fit Indices</i>                   |                               |                               | $X^2$ (df) | $X^2$ /df | CFI   | TLI   | RMSEA | $\Delta X^2$ ( $\Delta$ df) |
|--|-------------------------------|-------------------------------|------------|-----------|-------|-------|-------|-----------------------------|
| <i>Model</i>                               |                               |                               |            |           |       |       |       |                             |
| <b>Configural (Baseline) Model</b>         |                               |                               | 25.047(24) | 1.044     | .998  | .969  | .013  | .....                       |
| <b>Constrained Paths (relationship)</b>    | <b>INNOV1</b>                 | <b>INNOV2</b>                 |            |           |       |       |       |                             |
|  | <b>St. <math>\beta</math></b> | <b>St. <math>\beta</math></b> |            |           |       |       |       |                             |
| <b>PEOU <math>\rightarrow</math> SMUSE</b> | 0.226**                       | 0.201**                       | 25.092(25) | 1.004     | 1.000 | 1.000 | 0.004 | 0.045(1) ns                 |
| <b>PRA <math>\rightarrow</math> SMUSE</b>  | 0.671***                      | 0.756***                      | 25.292(25) | 1.012     | 0.999 | 0.999 | 0.007 | 0.245(1) ns                 |
| <b>SN <math>\rightarrow</math> SMUSE</b>   | 0.225**                       | 0.273***                      | 29.473(25) | 1.179     | 0.992 | 0.982 | 0.026 | 4.426(1) sg                 |

As seen from Table 4.55, there were insignificant differences between the baseline model and all the constrained paths' models with the exception of the SN→SMUSE path model. Firstly, the constrained PEOU→SMUSE path model showed an insignificant difference from the baseline model ( $\Delta x^2 = 0.045$ ,  $df=1$ ); this indicated that INNOV was not a moderator between PEOU and SMUSE. Secondly, the constrained PRA→SMUSE path model showed an insignificant difference from the baseline model ( $\Delta x^2 = 0.245$ ,  $df=1$ ); this indicated that INNOV was not a moderator between PRA and SMUSE. Finally, the constrained SN→SMUSE path model showed a significant difference from the baseline model ( $\Delta x^2 = 4.426$ ,  $df=1$ ); this indicated that INNOV was a homologizer moderator between SN and SMUSE. Thus, from the MRA and the multi-group analysis results, along with the standardized estimates for the structural model; which were found to be stronger for the INNOV2 group than for the IINOV1 group, hypothesis *H5* was partially supported.

#### 4.6 Investigation of Moderation Effects (Experience of Using Social media, Size of the Firm, the number of Countries the Firm Exports to, and the industry type of the firm)

##### I. Multi-group Analysis of Experience of Using Social Media as a Moderator

The data was split into two groups based on the mean of the experience of using social media's level: below the mean (EXPER1) with group size 164; and above the mean (EXPER2) with group size 113. Firstly, the structure model was applied separately to both groups to check the model fit statistics (Byrne, 2010). Table 4.56 below shows the results of both groups; this illustrates that both samples showed an acceptable model fit.

**Table 4.56: Structural Model Fit Indices- (EXPER) Groups**

| <i>Structural Model Fit Indices</i> | CMIN/DF | GFI   | AGFI  | CFI   | TLI   | RMSEA |
|-------------------------------------|---------|-------|-------|-------|-------|-------|
| <i>Model</i>                        |         |       |       |       |       |       |
| <b>Model 1 (EXPER1)</b>             | 2.972   | 0.855 | 0.825 | 0.900 | 0.860 | 0.092 |
| <b>Model 2 (EXPER2)</b>             | 2.391   | 0.848 | 0.808 | 0.913 | 0.879 | 0.091 |

Having satisfied the model fit for both groups from the previous stage, the next stage of analysis was to examine both models simultaneously to obtain the baseline and structural models as shown in Table 4.57. The results of the two models, obtained from the multi-group invariance test (baseline and structural models), shows that:

- (1) The baseline model, where all parameters of both models were estimated freely, showed an acceptable model fit which indicated that there was a similar pattern of constrained and unconstrained parameters in both samples.
- (2) The structural model, where the intercepts of all indicators were constrained to be equal, showed an acceptable model fit. In order to test the scalar invariance, the ( $X^2$ ) difference test showed a significant value; this meant that, in the overall model (scalar) both groups (EXPER1 and EXPER2) were different. This indicated that experience of using social media was a moderator.

**Table 4.57: Configural and Structural Models' fit Indices- (EXPER) Groups**

| <i>Model Fit Indices</i>           | $X^2$ (df)   | $X^2$ /df | CFI   | TLI   | RMSEA | $\Delta X^2$ ( $\Delta$ df) |
|------------------------------------|--------------|-----------|-------|-------|-------|-----------------------------|
| <i>Model</i>                       |              |           |       |       |       |                             |
| <b>Configural (Baseline) Model</b> | 348.633(130) | 2.682     | 0.906 | 0.868 | 0.078 | .....                       |
| <b>Structural Weights</b>          | 402.198(147) | 2.736     | 0.890 | 0.864 | 0.079 | 53.565(17) sg               |

## II. Multi-group Analysis of Firm Size as a Moderator

The data was split into two groups based on the mean of number of employees: small firms (SMALL) with group size 128; and medium size firms (MEDIUM) with group size 149. Firstly, the structure model was applied separately to both groups to check the model fit statistics (Byrne, 2010). Table 4.58 below shows the results of both groups; this illustrates that both samples showed an acceptable model fit.

**Table 4.58: Structural Model Fit Indices- (SIZE) Groups**

| <i>Structural Model Fit Indices</i> | CMIN/DF | GFI   | AGFI  | CFI   | TLI   | RMSEA |
|-------------------------------------|---------|-------|-------|-------|-------|-------|
| <i>Model</i>                        |         |       |       |       |       |       |
| <b>Model 1 (SMALL)</b>              | 2.658   | 0.833 | 0.801 | 0.903 | 0.864 | 0.103 |
| <b>Model 2 (MEDIUM)</b>             | 2.342   | 0.887 | 0.817 | 0.945 | 0.924 | 0.095 |

Having satisfied the model fit for both groups from the previous stage, the next stage of analysis was to examine both models simultaneously to obtain the baseline

and structural models as shown in Table 4.59. The results of the two models, obtained from the multi-group invariance test (baseline and structural models), shows that:

- (1) The baseline model, where all parameters of both models were estimated freely, showed an acceptable model fit which indicated that there was a similar pattern of constrained and unconstrained parameters in both samples.
- (2) The structural model, where the intercepts of all indicators were constrained to be equal, showed an acceptable model fit. In order to test the scalar invariance, the ( $X^2$ ) difference test showed a significant value; this meant that, in the overall model (scalar), both groups (SMALL and MEDIUM) were different. This indicated that the firm size was a moderator.

**Table 4.59: Configural and Structural Models' fit Indices- (SIZE) Groups**

| <i>Model Fit Indices</i>           | $X^2$ (df)   | $X^2$ /df | CFI   | TLI   | RMSEA | $\Delta X^2$ ( $\Delta$ df) |
|------------------------------------|--------------|-----------|-------|-------|-------|-----------------------------|
| <i>Model</i>                       |              |           |       |       |       |                             |
| <b>Configural (Baseline) Model</b> | 325.073(130) | 2.501     | 0.928 | 0.899 | 0.074 | .....                       |
| <b>Structural Weights</b>          | 355.066(147) | 2.415     | 0.923 | 0.905 | 0.072 | 29.993(17) sg               |

### III. Multi-group Analysis of Number of Countries the firm exports to as a Moderator

The data was split into two groups based on the number of countries that the firm exports to: exports mainly to one country (NOC1) with group size 98; and exports systematically to multi regions (NOC2) with group size 179. Firstly, the structure model was applied separately to both groups to check the model fit statistics (Byrne, 2010). Table 4.60 below shows the results of both groups; this illustrates that both samples showed an acceptable model fit.

**Table 4.60: Structural Model Fit Indices- (NOC) Groups**

| <i>Structural Model Fit Indices</i> | CMIN/DF | GFI   | AGFI  | CFI   | TLI   | RMSEA |
|-------------------------------------|---------|-------|-------|-------|-------|-------|
| <i>Model</i>                        |         |       |       |       |       |       |
| <b>Model 1 (NOC1)</b>               | 2.561   | 0.880 | 0.806 | 0.934 | 0.907 | 0.094 |
| <b>Model 2 (NOC2)</b>               | 2.554   | 0.821 | 0.711 | 0.902 | 0.875 | 0.107 |

Having satisfied the model fit for both groups from the previous stage, the next stage of analysis was to examine both models simultaneously to obtain the baseline and structural models as shown in Table 4.61. The results of the two models,

obtained from the multi-group invariance test (baseline and structural models), shows that:

(1) The baseline model, where all parameters of both models were estimated freely, showed an acceptable model fit which indicated that there was a similar pattern of constrained and unconstrained parameters in both samples.

(2) The structural model, where the intercepts of all indicators were constrained to be equal, showed an acceptable model fit. In order to test the scalar invariance, an ( $X^2$ ) difference test showed a significant value; this meant that, in the overall model (scalar) both groups (NOC1 and NOC2) were different. This indicated that the number of countries, which the firm exports to, was a moderator.

**Table 4.61: Configural and Structural Models' fit Indices- (NOC) Groups**

| <i>Model Fit Indices</i>           | $X^2$ (df)   | $X^2/df$ | CFI   | TLI   | RMSEA | $\Delta X^2$ ( $\Delta df$ ) |
|------------------------------------|--------------|----------|-------|-------|-------|------------------------------|
| <i>Model</i>                       |              |          |       |       |       |                              |
| <b>Configural (Baseline) Model</b> | 332.706(130) | 2.559    | 0.919 | 0.887 | 0.075 | .....                        |
| <b>Structural Weights</b>          | 361.959(147) | 2.462    | 0.914 | 0.894 | 0.073 | 29.253(17) sg                |

#### **IV. Multi-group Analysis of Number of Type of Industry of the Firm as a Moderator**

The data was split into two groups based on the type of industry that the firm belongs to: manufacturing industry (MANU) with group size 148; and service industry (SERV) with group size 129. Firstly, the structure model was applied separately to both groups to check the model fit statistics (Byrne, 2010). Table 4.62 below shows the results of both groups; this illustrates that both samples showed an acceptable model fit.

**Table 4.62: Structural Model Fit Indices- (INDUS) Groups**

| <i>Structural Model Fit Indices</i> | CMIN/DF | GFI   | AGFI  | CFI   | TLI   | RMSEA |
|-------------------------------------|---------|-------|-------|-------|-------|-------|
| <i>Model</i>                        |         |       |       |       |       |       |
| <b>Model 1 (MANU)</b>               | 2.891   | 0.841 | 0.804 | 0.905 | 0.868 | 0.101 |
| <b>Model 2 (SERV)</b>               | 2.675   | 0.858 | 0.822 | 0.915 | 0.881 | 0.103 |

Having satisfied the model fit for both groups from the previous stage, the next stage of analysis was to examine both models simultaneously to obtain the baseline and structural models as shown in Table 4.63. The results of the two models, obtained from the multi-group invariance test (baseline and structural models), shows that:

(1) The baseline model, where all parameters of both models were estimated freely, showed an acceptable model fit which indicated that there was a similar pattern of constrained and unconstrained parameters in both samples.

(2) The structural model, where the intercepts of all indicators were constrained to be equal, showed an acceptable model fit. In order to test the scalar invariance, an ( $X^2$ ) difference test showed an insignificant value; this meant that, in the overall model (scalar) both groups (MANU and SERV) were similar. This indicated that the type of industry of the firm was not a moderator.

**Table 4.63: Configural and Structural Models' fit Indices- (INDUS) Groups**

| <i>Model Fit Indices</i>           | $X^2$ (df)   | $X^2$ /df | CFI   | TLI   | RMSEA | $\Delta X^2$ ( $\Delta$ df) |
|------------------------------------|--------------|-----------|-------|-------|-------|-----------------------------|
| <i>Model</i>                       |              |           |       |       |       |                             |
| <b>Configural (Baseline) Model</b> | 361.842(130) | 2.783     | 0.910 | 0.874 | 0.081 | .....                       |
| <b>Structural Weights</b>          | 387.549(147) | 2.636     | 0.907 | 0.884 | 0.077 | 25.707(17) ng               |

## 4.7 Chapter Summary

This chapter presented the results of the preliminary analysis for the scale scores. In addition, the researcher conducted data screening for some issues such as missing data, outliers, normality, and multicollinearity. The results of common method variance (CMV) revealed that it did not affect the current study. Exploratory Factor Analysis (EFA) for the research constructs was conducted which showed an acceptable level for further analysis. The researcher used, also, confirmatory Factor Analysis (CFA) to evaluate and validate the research instrument. The results indicated that the employed measures were appropriate since they showed satisfactory and acceptable discriminant validity, convergent validity and reliability. Furthermore, the researcher used Bootstrapped standard errors test to assess the mediating proposed relationships. Moderated Regression Analysis (MRA) and the multi-group invariance analysis were used to test the moderating proposed relationships. The next chapter discusses and interprets the findings in more detail.

**CHAPTER FIVE:  
DISCUSSION OF KEY FINDINGS,  
LIMITATIONS AND DIRECTION OF  
FUTURE RESEARCH**

# CHAPTER FIVE

## DISCUSSION OF KEY FINDINGS, LIMITATIONS AND DIRECTION OF FUTURE RESEARCH

### 5.1 Introduction

This chapter presents, firstly, a summary of the results followed by a discussion of the research hypotheses. The research findings are reviewed alongside the previous research. This is followed by this study's academic contribution and practical implications. The final section discusses the limitations and the directions of future research.

### 5.2 Overview of the Findings of the Study

This section presents the findings that arise from the results of the statistical analysis testing of the hypotheses derived from our conceptual framework.

First of all, as regards Social Media Use (SMUSE), our framework suggested that Perceived Ease of Use (PEOU), Perceived Relative Advantage (PRA), Observability (OBSERV) and Subjective Norms (SN) had a direct positive effect on UK SME B2Bs' social media use for their export efforts. The analyses indicated that only PEOU, PRA and SN affected these firms' social media use while OBSERV had an insignificant effect on social media use. Therefore, hypotheses *H1*, *H2*, and *H4* were supported, while hypothesis *H3* was rejected.

Regarding the moderating effect of Innovativeness of the firm (INNOV) on the relationship between innovation characteristics and social media use, we examined this impact on the relationship between PEOU, PRA and SN as innovation characteristics and SMUSE. The results indicated that this relationship existed only for SN and not for the other relationships. Therefore, hypothesis *H5* was partially verified. Moreover, the researcher hypothesized that Training (TRAIN) would have, also, a moderating role in the relationship between innovation characteristics and



social media use. The analyses indicated that this relationship was verified only for SN and, therefore, hypothesis *H6* was partially supported.

From the implications of using social media for export efforts, the researcher hypothesized, also, that social media use indirectly influenced export performance through: Number of International Business Contacts (NOIBC); Quality of International Business Contacts (QOIBC); Brand Awareness (BA); Understanding Customers' Views and Preferences (UCUST); and Understanding Competition in Different Markets (UCOMP). The results indicated that these relationships existed with the exception of BA and NOIBC since BA had a statistically insignificant relationship with EXP and SMUSE had an insignificant indirect relationship thorough NOIBC. Therefore, hypotheses *H8*, *H10*, and *H11* were supported whereas hypotheses *H7* and *H9* were rejected.

The investigation considered, also, the moderating impact of Customer Engagement (CE). The results verified that it was an important moderator between SMUSE and: NOIBC; QOIBC; BA; UCUST; and UCOMP. Accordingly, hypotheses *H12*, *H13*, *H14*, *H15*, and *H16* were supported.

Continuing our analyses, we examined CA's moderating role on the relationship between UCUST, UCOMP and EXP. We concluded that these relationships existed. Therefore, hypotheses *H17* and *H18* were verified. Table 5.1 below summarizes the results of the hypotheses testing.

**Table 5.1: Hypotheses Overview**

| <b>Hypotheses</b>  | <b>Result</b>       |
|--|---------------------|
| <i>H1: There is a positive direct relationship between the perceived relative advantage of social media and its use for export purposes.</i>   | Supported           |
| <i>H2: There is a positive direct relationship between the perceived ease of use social media and its use for export purposes.</i>   | Supported           |
| <i>H3: There is a positive direct relationship between the observability of social media and its use for export purposes.</i>  | Rejected            |
| <i>H4: There is a positive direct relationship between the subjective norms and the use of social media for export purposes.</i>   | Supported           |
| <i>H5: Innovativeness of the firm enhances the relationship between social media's innovation characteristics (perceived ease of use, perceived relative advantage, and subjective norms) and its use for export purposes.</i> | Partially Supported |
| <i>H6: Training enhances the relationship between social media's innovation characteristics (perceived ease of use, perceived relative advantage, and subjective norms) and its use for export purposes.</i>                   | Partially Supported |

| <b>Hypotheses</b>  | <b>Result</b> |
|--|---------------|
| <i>H7: The use of social media influences export performance indirectly through the number of international business contacts.</i>   | Rejected      |
| <i>H8: The use of social media influences export performance indirectly through the quality of international business contacts.</i>  | Supported     |
| <i>H9: The use of social media influences export performance indirectly through the brand awareness.</i>   | Rejected      |
| <i>H10: The use of social media influences export performance indirectly through the understanding of customers' views and preferences.</i>  | Supported     |
| <i>H11: The use of social media influences export performance indirectly through the understanding of competition in different markets.</i>  | Supported     |
| <i>H12: Customer engagement in using social media enhances the relationship between the use of social media and the number of international business contacts.</i>                       | Supported     |
| <i>H13: Customer engagement in using social media enhances the relationship between the use of social media and the quality of international business contacts.</i>                      | Supported     |
| <i>H14: Customer engagement in using social media enhances the relationship between the use of social media and brand awareness.</i>   | Supported     |
| <i>H15: Customer engagement in using social media enhances the relationship between the use of social media and understanding customers' views and preferences through social media.</i> | Supported     |
| <i>H16: Customer engagement in using social media enhances the relationship between the use of social media and understanding competition in different markets via social media.</i>     | Supported     |
| <i>H17: Cultural adaptation enhances the relationship between understanding customers' views and preferences through social media and export performance.</i>                            | Supported     |
| <i>H18: Cultural adaptation enhances the relationship between understanding competition in different markets via social media and export performance.</i>                                | Supported     |

Additionally, the findings of the moderating effects of the firm's size for the whole model revealed that the differences in firm's size affected the benefits of SMUSE. A possible reason is that these larger SMEs have resources (more employees, larger budgets, etc.) that enable them to devote more attention to recent technological developments and can result in more benefits for them than for smaller SMEs. This is in line with Hameed et al. (2012) who argued that the size of the company might affect potentially the sale organisation's SMUSE. Also, Wamba and Carter (2014) found that firm size had a significant impact the social media use by SMEs.

Moreover, it was found that the experience of using social media by SMEs B2B firms played a moderator role on the whole model. This barrier of inadequate knowledge and skills of SMUSE can be classified as a strategic level problem. Social

media needs to be considered a key player if the SME is to achieve its goals. Accordingly, if SMEs have a well-trained social media staff, then there is a high likelihood of their using social media successfully as a competitive tool. As Mutula and Brakel (2006) stated, “Pervasive use of social media in the economy depends on well-trained human resources for developing relevant applications, supporting and maintaining systems”. Similarly, high levels of managers’ competence with SMUSE should lead to high levels of efforts and persistence and, thus, they learn how to benefit from SMUSE (Román and Rodríguez, 2015).

Furthermore, the results illustrated that the number of countries, which the firm exports to, had a moderating effect on the whole model. There was a difference between those firms that exported exclusively to one country and those that exported to more than one country. Factors, such as government (institutional rules and regulations), cultural (shared values) and available technology (the infrastructure enabling social media), were shown to influence the implementation of the most important types of social media (Berthon et al., 2012). Ultimately, local market adjustments of social media content in order to accommodate local preferences, is a necessity that arises from the inability of corporations to standardize social media practices globally. Accordingly, firms can use a “one-size fits all” strategy when it comes to SMUSE for one country. However, it will be risky for a firm to standardize the social media component of its communication strategy when engaging with many countries. Accordingly, when it comes to SMUSE which could affect the outcome of its use, it is logical to expect that it is much more challenging for those firms targeting many countries comparing to those firms targeting one country.

Moreover, the findings of the moderating effects of the type of industry (manufacturing versus service firms) on the whole model revealed that there was no significant difference. A possible reason is that the utilization of social media is almost standard in all sectors. Also, since the classification of firms into service and manufacturing categories was, to some extent, arbitrary, the services/manufacturing distinction was too broad to expect to find much difference. Firms were classified into the services and manufacturing categories according to their primary economic activities; however, this is a questionable distinction nowadays. For example, Rolls-Royce is considered to be a manufacturing company (aero engines, marine engines,

power generation equipment), but over 50% of its revenue is generated by services—that is to say, over 50% of RR revenues are generated from after-sales service contracts on the engines that they sell (Brennan et al., 2007). This result is in line with Michaelidou et al. (2011) and Smith et al. (2015) who found that there was no difference between manufacturing and services industries based on their SMUSE.

### **5.3 Validation of the Research Hypotheses**

This section introduces and discusses the results presented in the previous chapter regarding the proposed research hypotheses. The following discussions are presented in the same format as the main dimensions of the research presented in the previous chapters. These are, namely: 1) the usage stage of social media; and 2) the implications of using social media for exporting efforts.

#### **5.3.1 The Usage Stage of Social Media**

We began our research by looking at the Information Technology Management and Management Information System field for factors which impacted on SME B2B firms' use of the social media. Hence, we employed the Technology Acceptance Model (TAM) developed by Davis et al. (1989), Innovation Diffusion Theory (IDT) developed by Rogers (1995) and Theory of Reasoned Action (TRA) developed by Fishbein and Ajzen (1975).

##### **5.3.1.1 Perceived Ease of Use (PEOU)**

According to this study, Perceived Ease of Use (PEOU) represents the managers' opinions regarding PEOU of social media for export market activities. In this study, PEOU resulted in five manifested indicators namely: I believe that it is easy to get social media sites to do what I want them to do; my interaction with social media sites for exporting efforts is easy and understandable; I find social networks sites flexible to interact with; it is easy for me to become skilful at using social networks

for exporting efforts; and overall, I believe that social media sites are easy to use for marketing to other companies.

The research results supported the *H2* which proposed that PEOU had a positive effect on SMUSE for exporting efforts. The perception of social media ease of use PEOU's influence on SMUSE was significant for the research model ( $\beta=0.303$ ,  $p<0.001$ ). These results are consistent with the previous research findings that indicated a significant relationship between PEOU and adoption/use of innovation (e.g. Davis, 1989; Eid, 2010; Tornatzky and Klein, 1982; Awa et al., 2010; Dlodlo and Dhurup, 2013; Pinho and Soares, 2011; Grandon and Pearson, 2004; Cooper and Zmud, 1990; Lertwongsatien and Wongpinunwatana, 2003; Hoffman et al., 1995). However, these results contradict the findings of other research which found no significant relationship between PEOU and adoption/use of social media. As we mentioned previously, Christodoulides et al. (2015) and Siamagka et al. (2015) found that this insignificant relationship was due possibly to the ease of use of social media by the users in their sample. Veldeman et al., (2015) concluded that that the participation of social media was not effortless as deciding on how to use it in the right way is considered very hard. In addition, some previous studies argued that the reason for the insignificant results might be due to some moderating variables which caused this inconsistency in the relationship between these two variables. These are: experience of the users of the technology (Karahanna et al. (2006) and Igarria and Iivari (1995); the complexity of the system being used (Subramanian, 1994); and gender (Venkatesh and Morris, 2000). Based on this study's results, we conclude that PEOU is an important predictor of social media use.

### **5.3.1.2 Perceived Relative Advantage (PRA)**

Perceived Relative Advantage (PRA) was defined as the degree to which an innovation was perceived as being better than its antecedent. PRA was developed and manifested in four observed variables namely: using social media sites enables me to accomplish exporting efforts more quickly; using social media sites improves the quality of the firm's exporting activities; by using social media our firm would

find it more effective in exporting efforts; and using social media sites allows me to accomplish more exporting work than would otherwise be possible.

The influence of Perceived Relative Advantage (PRA) on the Use of Social Media (SMUSE) was accepted for the research model ( $\beta=0.498$ ,  $p < 0.001$ ); this supported hypothesis *H1*. These findings are consistent with those of previous research which found that PRA was an important predictor of adoption/use of an innovation (e.g. Igarria and Iivari, 1995; Eid, 2010; Rogers, 2003; Tornatzky and Klein, 1982; Grandon and Pearson, 2004; Awa et al., 2010; Christodoulides et al., 2015; Siamagka et al., 2015; Parker and Castleman, 2009; Pinho and Soares, 2011; Hossain and De Silva, 2009; Moore and Benbasat, 1991; Teo and Pok, 2003). Thus, the greater the perception of usefulness or advantage, the more likely it is that individual will adopt the new technology. Based on the result of the current research, it can be concluded that PRA is an important predictor of the use of social media. However, these findings are not consistent with some other studies (El-Gohary, 2012; Fenech, 1998) that found insignificant relationship between PRA and the technology usage. The reason for the differences in results might be the difference in context between social media and the other contexts in those studies.

### **5.3.1.3 Observability (OBSERV)**

Aligned with the previous research on technology use and acceptance, Observability (OBSERV) was defined as the degree to which the results of an innovation were observable to others. This variable was measured by: I have seen social media in use outside my company; it is easy for me to observe others using social media outside my company; and there are plenty of opportunities to see others using social media.

The link between Observability (OBSERV) and Use of Social Media (SMUSE) (hypothesis *H3*) was insignificant and was not supported by the research findings ( $\beta=-0.018$ ,  $p > 0.05$ ). This may be due to social media still being in its early stages and not many firms are using it; however, these firms still might not be observing clearly the positive results of this new technology. These findings are consistent with

Rogers (2003) who found that, among the five technological characteristics, observability was not related to the adoption of new technology. In addition, Zhang et al. (2010) found that, compared to other factors, observability had the minimum weight of affecting the behavioural intention.

However, these findings are not consistent with some other studies that found a positive relationship between observability and adoption/use of innovation. For example, Lee (2007) found a positive relationship between observability and the adoption of a system. Tornatzky and Klein (1982) concluded that the more visible the results of an innovation, the more likely the innovation would be adopted. The reason behind the differences in results between the current research and the previous research might be the difference between social media context and other contexts in these studies since the effect of observability tended to vary according to the context of use (Joo et al., 2014). Additionally, it was argued that the observability construct had various interpretations and could be confounded by other perceived attributes. As Tornatzky and Klein (1982, p.38) stated, “It is unclear whether observability per se is being assessed, or observability of cost, compatibility, effect, etc.”. Based on the result of the current research, it can be concluded that observability is not an important predictor of use of social media.

#### **5.3.1.4 Subjective Norms (SN)**

In relation to this study, we defined this variable as the individual’s perception of the viewed importance of what others thought about his/her carrying out a specific behaviour or not. Subjective norms were operationalized by: most people, who are important to our company (stakeholders), think that we should use social media sites; our competitors use social media sites; and our customers use social media sites.

As expected and consistent with previous research findings, Subjective Norms (SN) were found to be a significant predictor of Use of Social Media (SMUSE) (hypothesis *H4*). The results revealed that subjective norms were a significant determinant of use of social media in the research model ( $\beta=0.164$ ,  $p< 0.01$ ). These results are in line with some previous studies (e.g. Brown, et al., 2002; Karahanna, et al., 1999; Hu et al., 2005; Hsu and Chiu, 2004; Wang et al., 2010; Hsu and Lin,

2008; Taylor and Todd, 1995; Robinson, 2006; Liao et al., 2007; Venkatesh et al., 2003; Nasco et al., 2008; Harrison et al., 1997).

On the other hand, these findings are inconsistent with some other previous studies which found an insignificant relationship between the subjective norms and innovation adoption/use (Mathieson, 1991; Deng et al., 2011; Wong et al., 2013). This can be justified by those studies using some moderating variables, such as age gender and the voluntariness of users, which influenced the relationship between subjective norms and adoption of innovation. Also, it might be the different samples used in these studies compared to the current study (Venkatesh et al., 2003). Based on the result of the current research, it can be concluded that subjective norms is an important predictor of use of social media.

#### **5.3.1.5 Innovativeness of the Firm (INNOV)**

According to this study, Innovativeness of the Firm (INNOV) represents the extent to which the firm is oriented to supporting new ideas, novelty and creative processes that result in new and innovative products, technology, or processes. In this study, INNOV resulted in three manifested indicators namely: if our firm heard about a new information technology, it would look for ways to experiment with it; among our peers, our company is usually the first to try out new information technologies; and overall, our company likes to experiment with new information technologies. This study proposed that INNOV could influence some relationships in the hypothesized model. The following section discusses the influence of this variable.

The invariant test, using the multi-group analysis, for the research model illustrated that the INNOV groups in the research sample (below and above the mean) were variant to the overall level. Based on the obtained structural weights, the scalar model indicated that INNOV was a moderator for a part of the research model.

For every individual latent variable, the findings of ( $\Delta\chi^2$ ) indicated that below the mean and above the mean of INNOV groups were different in only one relationship (SN $\rightarrow$  SMUSE), while they were invariant for the other two relationships (PEOU $\rightarrow$ SMUSE) and (PRA $\rightarrow$ SMUSE). That was supported by the MRA test which



confirmed the moderating effect for only the relationship between the SN and SMUSE.

The moderating role of INNOV on the relationship between PEOU and SMUSE was not supported. These findings are consistent with some previous studies (Siamagka et al., 2015; Yi et al., 2006; Agarwal and Prasad, 1998). On the other hand, others confirmed the moderating effect of INNOV (Mohammadi, 2015; Faiers et al., 2007).

The research findings, regarding the moderating role of INNOV on the relationship between PRA and SMUSE, were not supported. These findings are consistent with some previous studies. For example, as we mentioned before, Yi et al. (2006) did not find a moderating effect of innovativeness on the relationships between innovation characteristics and adoption behaviour. Agarwal and Prasad (1998) found an insignificant interaction between PRA and innovativeness. In addition, Siamagka et al. (2015) did not support the moderating role of innovativeness. On the other hand, the findings are inconsistent with some research findings (Tsou, 2012; Yi et al., 2003; Faiers et al., 2007) which asserted this moderating effect was with highly innovative people who were more likely to perceive the relative advantage of the new technology and, hence, to adopt it in comparison to those with lower innovativeness.

These findings confirmed the moderating role of INNOV on the relationship between SN and SMUSE and that they were consistent with the previous research findings. For example, Lee et al. (2007) found that innovativeness moderated the relationship between SN and use of innovation. Moreover, Gumel and Othman (2013) concluded that SN's influence on the adoption of innovation varied when innovativeness was incorporated as a moderator. Hence, H5 was partially supported.

There is a reason for the research findings. Highly innovative people may not be greatly concerned about the degree of easiness of the new technology. Namely, the innovative individuals are able to cope with a higher level of risks and uncertainties regardless of the relative advantage of this new technology. Hence, they may prefer to rely on the opinions of other people, (SN) who are already using this new technology, when reaching a decision about its use.

### 5.3.1.6 Training (TRAIN)

Training (TRAIN) is considered to be one of the important factors in the adoption and continuing use of new technology (Rogers, 1994). In this study, training was developed and manifested as: training for using social media through regular training programs/sessions; through aggregate and shared external conferences; and through webinars and industry articles. This study proposed that training could influence some relationships in the hypothesized model. The following section discusses the influence of this variable.

The invariant test, using the multi-group analysis, for the research model illustrated that training groups in the research sample (below and above the mean) were variant at the overall level. Based on the obtained structural weights, the scalar model indicated that training was a moderator for a part of the research model.

For every individual latent variable, the findings of ( $\Delta\chi^2$ ) indicated that below the mean and above the mean of training groups were different in only one relationship (SN $\rightarrow$  SMUSE), while they were invariant for the other two relationships (PEOU $\rightarrow$ SMUSE) and (PRA $\rightarrow$ SMUSE). That was supported by the MRA test which supported the moderating effect for only the relationship between the SN and SMUSE.

These findings, regarding the moderating role of TRAIN on the relationship between PEOU and SMUSE, were not supported. Also, they are inconsistent with the previous research findings. For example Yi et al. (2006); Davis et al. (1989); Szajan (1996) found that PEOU's influence on the use of technology was moderated by computer experience. As for those with little computer experience, the PEOU can influence the use of technology more than those of high computer experience.

On the other hand, the moderating role of TRAIN on the relationship between PRA and SMUSE was not supported. These findings are inconsistent with some previous studies (Taylor and Todd, 1995; Karahanna et al., 1999).

Finally, these findings, regarding the moderating role of TRAIN on the relationship between SN and SMUSE, were supported. These findings are consistent with the previous research findings. For example, Morris and Venkatesh (2000);

Venkatesh and Davis (2000); Karahanna et al. (1999); Taylor and Todd (1995) confirmed the moderating role of experience in the relationship between SN and adoption behaviour. Namely, the inconsistency in the relationship between subjective norms and adoption of innovation may be due to the experience of the users affecting this relationship (Taylor and Todd, 1995; Hartwick and Barki, 1994). Hence, hypothesis H6 was partially supported.

The reason for research findings is that, with firms in our sample, 60% of the respondents had, on average, 3 years or less experience with social media platforms. Accordingly, the low experience users cannot use relative advantage in forming their future behaviours. Also, these low experience users are unable to evaluate the ease of use of this new technology. Hence, the stronger the influence of social pressures from customers, competitors, and experts, the greater the impact on behavioural outcomes. As with more experience, companies see more of the benefits of social media to customers and understand better the threats from competitors. This provides an even stronger relationship between social influence and use of social media.

### **5.3.2 Implications of Using Social Media for Exporting Efforts**

This research considers the benefits from SME B2B firms using SMUSE for their exporting efforts.

#### **5.3.2.1 The Indirect Effects of the Social Media Use (SMUSE) on Export Performance (EXP) through the Number of International Business Contacts (NOIBC) and Quality of International Business Contacts (QOIBC)**

In order to gain enriching insights into the process of social media use for exporting efforts, the number and quality of international business contacts were hypothesized to be explained by social media use. At the overall level, the indirect effect of the social media use on export performance through quality of international business contacts was supported but not for that indirect effect of the number of international business contacts. The following shows in more detail the indirect effects of social media use on export performance through NOIBC and QOIBC.

#### **- Number of International Business Contacts (NOIBC)**

The research model demonstrated a positive relationship between social media use and the number of international business contacts ( $\beta=0.871$ ,  $p< 0.001$ ). These findings illustrate that social media use has a positive relationship with the number of international business contacts. These findings are consistent with the previous research findings (e.g. Trusov et al., 2009; Searcy, 2012; Groza et al., 2012; Howe, 2006; Piller et al., 2012; Mershon, 2012; Stelzner, 2013; Schaffer, 2011; Thew, 2008; Michaelidou et al., 2011; Dong-Hun, 2010; Safko, 2011; Miller, 2012; Pergolino and Miller, 2010; Rodriguez et al., 2012). These studies suggested that social media was a new platform that provided networking opportunities for businesses since it provided an opportunity to extend the firm's searching ability and enabled access to various contacts.

#### **- Quality of International Business Contacts (QOIBC)**

The research model demonstrated a positive relationship between social media use and quality of international business contacts ( $\beta=0.875$ ,  $p< 0.001$ ). These findings illustrate that social media use has a positive relationship with quality of international business contacts. These findings are consistent with the previous research findings (Shih, 2009; Katsioloudes et al., 2007; Rodriguez et al., 2012; Hamill et al., 2011). These studies conclude that, by examining the profiles of the prospective targets, social media use can qualify leads early in the contact process.

In addition, positive relationships were demonstrated between both the number of international business contacts and quality of international business contacts with Export Performance (EXP) ( $\beta=0.163$ ,  $p< 0.01$ ;  $\beta=0.206$ ,  $p< 0.001$ ). These findings are consistent with previous research which illustrate that effective communications is critically important for the firm's successful internationalisation process (e.g. Johanson and Vahlne, 1990; O'keefe et al., 1998; Selby, 2000; Bennett, 1997; Musteen et al., 2010; Loane and Bell, 2006; Wu et al., 2003; Filatotchev et al., 2009; Rodriguez et al., 2012; Carroll, 2015; Marketo, 2010).

The researcher used Structural Equation Modelling (SEM) to examine the indirect effect of SMUSE on export performance through NOIBC and QOIBC. The empirical results suggested that SMUSE did not indirectly influence export performance through the NOIBC (hypothesis *H7* was not supported). However, SMUSE did indirectly influence export performance through the QOIBC (hypothesis *H8* was supported). A possible reason may be that the qualified prospective customers who suit the business's needs and who could be identified by using social media platforms are more important than the number of international business contacts in affecting EXP. Hence, these results suggested that QOIBC exerted a significant and positive influence on EXP. To the best of the researcher's knowledge, this is the first study to account for the indirect impact of SMUSE on EXP export through NOIBC and QOIBC.

#### **5.3.2.2 The Indirect Effect of the Social Media Use (SMUSE) on Export Performance (EXP) through Brand Awareness (BA)**

The relationship between brand awareness and export performance was hypothesized to be explained by the use of social media. The path coefficients in the research model revealed that SMUSE was a significant predictor of BA ( $\beta=0.862$ ,  $p<0.001$ ). In other words, SMUSE has a positive relationship with BA. These findings are consistent with the previous research findings (e.g. Stileman, 2009; Mangold and Foulds, 2009; Bruhn, 2014; Gunelius, 2011; McKee, 2010; Jackson, 2011; Akhtar, 2011; Zarella, 2010; Kaplan and Haenlein, 2009; Hutter and Hautz, 2013; Michaelidou et al., 2011). Hence, SMUSE gives companies better communication grounds with the customers to build brand awareness either by facilitating consumer-to-consumer communication or companies to consumer communication.

In addition, the research model demonstrated an insignificant relationship between BA and EXP ( $\beta=0.035$ ,  $p>0.05$ ). These findings are inconsistent with previous research which illustrated that there was a positive association between BA and market outcomes (Kim and Kim, 2005; Kim et al., 2003; Kim and Kum, 2004; Keller and Lehmann, 2003; Baldauf et al., 2003; Srinivasan et al., 2010). Accordingly, SMUSE did not indirectly influence export performance through BA (hypothesis *H9* was not supported). A possible reason for that result may be that offline BA is more

important to these firms in enhancing EXP than through online brand awareness via social media platforms in enhancing export performance. To the best of the researcher's knowledge, this is the first study to account for the indirect impact of SMUSE on EXP through the previously mentioned variable.

### **5.3.2.3 The Indirect Effects of the Social Media Use (SMUSE) on Export Performance (EXP) through Understanding Customers' Views and Preferences (UCUST) and Understanding Competition in different Markets (UCOPM)**

In order to gain enriching insights into the process of social media use for exporting efforts, understanding customers' views and preferences through social media and understanding competition in different markets via social media were hypothesized to be explained through use of social media. At the overall level, the indirect influence of SMUSE on export performance through UCUST and UCOMP were supported. The following shows in more detail the indirect effects through these two variables.

#### **- Understanding Customers' Views and Preferences (UCUST)**

The research model demonstrated a positive relationship between social media use and understanding customers' view and preferences through social media ( $\beta=0.913$ ,  $p < 0.001$ ). These findings illustrate that SMUSE has a positive relationship with UCUST. These findings are consistent with the previous research findings (e.g. Hamill et al., 2011; Soar, 2012; Kietzmann et al., 2011; Ribiere and Tuggle, 2010; Schneckenberg, 2009; Levy, 2009; Kazienko et al., 2013; Ferneley et al., 2009; Constantinides et al., 2008; Singh et al., 2008; Jussila et al., 2014). These studies argue that, by using social media, marketers can collect ample and high quality intelligence by listening to their customers' voices, for example, what customers say online about the firm, its products and, also, about their needs and preferences.

#### **- Understanding Competition in Different Markets (UCOMP)**

The research model demonstrated a positive relationship between social media use and understanding competition into different markets ( $\beta=0.832$ ,  $p < 0.001$ ).

These findings illustrate that SMUSE has a positive relationship with UCOMP. These findings are consistent with the previous research findings (Governatori and Iannella, 2011; Agnihotri et al., 2012; Rautio, 2013, Rapp et al., 2013). These studies conclude that social media can be used to observe competitors' digital interactions with customers; access customers' reactions to competitors; monitoring what is being said about the competitor; and tracking the industry trends.

In addition, positive relationships were demonstrated between both UCUST and UCOMP with EXP ( $\beta=0.274$ ,  $p<0.001$ ;  $\beta=0.296$ ,  $p<0.001$ ). These findings are consistent with previous research which illustrate that acquisition and utilisation of information about customers' views and preferences are positively related to firm performance (Keh et al., 2007; Yap and Md Zabid, 2011; Adidam et al., 2012). Additionally, the findings are consistent with previous research which illustrate that knowledge of the foreign market is considered to be a basis for effective internationalisation (Autio et al., 2000; Zahra et al., 2000; Petersen et al., 2002; Soh, 2003; Akyol and Akehurst, 2003; Silva, 2010).

The researcher used Structural Equation Modelling (SEM) to examine the indirect effect of SMUSE on export performance through UCUST and UCOMP. The findings suggested that SMUSE influence export performance indirectly through both UCUST and UCOMP (hypotheses *H10* and *H11* were supported). To the best of the researcher's knowledge, this is the first study to account for the indirect impact of SMUSE on EXP through the previously mentioned variables.

#### **5.3.2.4 The Moderating Role of Customer Engagement (CE) on the Relationship between Social Media Use (SMUSE) and Sales Leads (number and quality of international business contacts (NOIBC and QOIBC))**

The Moderated Regression Analysis (MRA) revealed that social media use (SMUSE) and customer engagement (CE) had a significant influence on both the number of international business contacts (NOIBC) and quality of international business contacts (QOIBC) and that there was significant interaction between SMUSE and CE for both relationships. In addition, the invariant test, using the multi-group

analysis for the research model, illustrated that, in the research sample, CE groups, below and above the mean (CE1, CE2), were variant at the overall level. Based on the obtained structural weights, the scalar model indicated that customer engagement was a moderator for a part of the research model.

For every individual latent variable, the findings of ( $\Delta x^2$ ) indicated that for CE groups below and above the mean were variant for both relationships (SMUSE→NOIBC), and (SMUSE →QOIBC).

These findings, regarding the moderating role of CE on the relationship between SMUSE and both NOIBC and QOIBC supported hypotheses *H12* and *H13*. These are consistent with previous research's implicit insights which could be employed to argue for this moderating role. For example, Mersey et al. (2010); Gorry and Westbrook (2011); Hudson and Thal (2013) stated that social media provided an opportunity for a business to engage and interact with potential customers; this will enhance its ability to build all important relationships with those customers. On the other hand, as concluded by Rodriguez and Peteron (2012); Shih (2009) that not only did CE face the challenge of discovering the prospective clients but, also, the equally challenge step was to qualify those prospects. To the best of the researcher's knowledge, this is the first study to account for the moderating impact of CE on the relationship between SMUSE and both NOIBC and QOIBC.

#### **5.3.2.5 The Moderating Role of Customer Engagement (CE) on the Relationship between Social Media Use (SMUSE) and Brand Awareness (BA)**

Customer engagement constituted a moderating variable that was theorized to influence the relationship between social media use (SMUSE) and brand awareness (BA). The MRA illustrated that SMUSE and CE had a significant influence on BA and that there was significant interaction between the two variables. In addition, at overall level, the invariant test, using the multi-group analysis for the research model, illustrated that CE groups; below and above the mean (CE1, CE2), were variant at both examined samples. Based on the obtained structural weights, the scalar model indicated that CE was a moderator for a part of the research model.



For every individual latent variable, the findings of ( $\Delta x^2$ ) indicated that for the CE groups below and above the mean were different for the proposed relationship (SMUSE  $\rightarrow$  BA).

These findings, regarding the moderating role of CE on the relationship between SMUSE and BA, supported hypothesis *H14*. These are consistent with previous research's implicit insights which could be employed to argue for this moderating role. For example, Beuker and Abbing (2010); Zailskaite-Jakste and Kuvykaite (2012) argued that social media offered firms valuable opportunities to make their brands more noticeable through interacting and engaging with customers. In the same vein, Hutter et al. (2013); Michaelidou et al. (2011); Kirby (2006); Van Doorn et al. (2010) concluded that social media was a way to expose customers to the brand and the more customers engaged, the higher the awareness of the brand. To the best of the researcher's knowledge, this is the first study to account for the moderating impact of CE on the relationship between SMUSE and BA.

#### **5.3.2.6 The Moderating Role of Customer Engagement (CE) on the Relationship between Social Media Use (SMUSE) and Understanding Customers' Views and Preferences (UCUST) and Understanding Competition in Different Markets (UCOMP)**

The MRA revealed that social media use (SMUSE) and customer engagement (CE) had a significant influence on both understanding customers' views and preferences (UCUST) and also understanding competition into different markets (UCOMP) and that there was significant interaction between the two variables (SMUSE and CE) for both relationships. In addition, the invariant test, using the multi-group analysis for the research model, illustrated that CE groups (below and above the mean) were variant at the overall level. Based on the obtained structural weights, the scalar model indicated that customer engagement was a moderator for a part of the research model.

For every individual latent variable, the findings of ( $\Delta x^2$ ) indicated that for CE groups (CE1 and CE2) below and above the mean were variant for both relationships (SMUSE  $\rightarrow$  UCUST), and (SMUSE  $\rightarrow$  UCOMP).

These findings, regarding the moderating role of CE on the relationship between SMUSE and both UCUST and UCOMP supported hypotheses *H15* and *H16*. These are consistent with previous research's implicit insights which could be employed to argue for this moderating role (Sawhney et al., 2005; Sasch, 2012; Harrigan et al., 2015; Tikkanen et al., 2009; Bijmolt et al., 2010; Singh et al., 2010). These previous research studies concluded that customer engagement via using social media was considered to be a values-added process for firms through which they could enhance the intelligence generation from using social media that could help them to better understand the marketplace. To the best of the researcher's knowledge, this is the first study to account for the moderating impact of CE on the relationship between SMUSE and both UCUST and UCOMP.

#### **5.3.2.7 The Moderating Role of Cultural Adaptation (CA) on the Relationship between Understanding Customers' Views and Preferences (UCUST), Understanding Competition in Different Markets (UCOMP) and Export Performance (EXP)**

Cultural adaptation (CA) constituted a moderating variable that was theorized to influence the relationship between both understanding customers' views and preferences (UCUST) and understanding competition into different markets (UCOMP) with EXP. The MRA illustrated that UCUST and CA, UCOMP and CA had a significant influence on EXP and that there was significant interaction between the two variables in both relationships. In addition, at the overall level, the invariant test, using the multi-group analysis for the research model, illustrated that CA groups (CA1 and CA2); below and above the mean were variant in both examined samples. Based on the obtained structural weights, the scalar model indicated that cultural adaptation was a moderator for a part of the research model.

For every individual latent variable, the findings of ( $\Delta x^2$ ) indicated that CA groups below above the mean were variant for the proposed relationships (UCUST→ EXP) and (UCOMP→EXP).

These findings, regarding the moderating role of CA on the relationship between UCUST and EXP, and UCOMP and EXP supported hypotheses *H17*, *H18* and were

consistent with previous research's implicit insights which could be employed to argue for this moderating role. The availability of quality, timely and relevant information about international markets is an important element for many firms in being successful in their export marketing (Doole et al., 2006; Wang and Olsen, 2002; Knight and Liesch, 2002; Tsai and Shih, 2004; Souchon and Durden, 2003). For the effective use of this information, communication is a crucial aspect of marketing channels (Mohr and Nevin 1990). In this respect, a number of studies on international marketing offered support to the argument that communication was affected by cultural differences and that the inadequate adaptation to local cultures and standardised communications had a negative relationship with firm performance (Razzouk et al., 2002; Melewar and Vemmervik, 2004; Zhou and Belk, 2004; Ko, 2001). Evidence showed that the sales performance, with a culture other than the salesperson's own culture, increases with high cultural intelligence (Chen et al., 2012; Ang et al., 2007). That is why it becomes obligatory for firms to customize their global marketing strategies for social media use to fit global cultural differences to better benefit from market intelligence for their export performance since the firms cannot standardized social media use across borders (Berthon et al., 2012). To the best of the researcher's knowledge, this is the first study to account for the moderating impact of CA on the relationship between UCUST and UCOMP and EXP.

#### **5.4 Summary of the Research Contributions**

This study makes several significant contributions towards the research and the theory of social media marketing as a new field of knowledge. Since the theory in the field on social media is still not well developed, this study can be considered to be a step towards building a much more robust theory. The followings are the main issues discussed.

Regarding the SME B2B firms' use of social media for exporting activities, an important step is an understanding of the theoretical determinants of the usage process. To give a better explanation for the use of social media by SMEs B2B firms, this study incorporated theories of Technology Acceptance Model (TAM) and Innovation Diffusion Theory (IDT). These were among the most effective theories in

predicting and explaining the innovation diffusion. Although a large number of studies focused on applying the technology acceptance theories either from an individual perspective (Zolkepli and Kamarulzaman, 2011; Van Raaij and Schepers, 2008; pinho and Soares, 2011; Li et al., 2011; Macredie and Mijinyawa, 2011; Hossain and De Silva, 2009; Wang et al., 2010) or from a firm's internal perspective (Gunther et al., 2009), very few studies applied and extended these technology acceptance theories within the social media context from the perspective of the firm's marketing perspective; without integrating some of these theories (Pentina et al., 2012; Christodoulides et al., 2015, Siamagka et al., 2015, Veldeman et al., 2015). This study shows that Perceived Ease of Use (PEOU), Perceived Relative Advantage (PRA) and Subjective Norms (SN) are predictors for these firms' use of social media (SMUSE).

Moreover, this study makes, also, a contribution to the literature by examining the moderating role of Training (TRAIN) on the relationships between Perceived Ease of Use and Social Media Use (PEOU→SMUSE); Perceived Relative Advantage and Social Media Use (PRA→SMUSE); and Subjective Norms and Social Media Use (SN→ SMUSE). In addition, the study makes a contribution to the literature by examining the moderating role of Innovativeness of the Firm (INNOV) on the relationships between (PEOU→SMUSE); (PRA→SMUSE); and (SN→ SMUSE). Existing research failed to examine the moderating role of these factors adequately and, especially, within the context of social media. A number of theoretical studies were devoted to the identification of these factors as obstacles/enhancers of the adoption/use of social media (Paroutis and Al Saleh, 2009; Buehrer et al., 2005; Koh and Espinola, 2010). The exception was Siamagka et al.'s (2015) study which empirically examined only the moderating effect of Innovativeness of the Firm for PEOU and PU constructs.

This study's findings showed Training was only a moderator between (SN→ SMUSE) and not for (PEOU→SMUSE) and (PRA→SMUSE). Additionally, this study showed that Innovativeness of the Firm (INNOV) was only a moderator between Subjective Norms and Social Media Use (SN→ SMUSE) and not for Perceived Ease of Use and Social Media Use (PEOU→SMUSE) and Perceived Relative Advantage and Social Media Use (PRA→SMUSE).

With regard to the role of using social media for exporting efforts, this study is one of the first studies to examine empirically the effects of SME B2B firms using social media for their exporting efforts. This study's contribution to the literature is the examination of the indirect effect of SMUSE on export performance through: Number of International Business Contacts (NOIBC), Quality of International Business Contacts (QOIBC), Brand Awareness (BA), Understanding Customers' views and preferences (UCUST), and Understanding Competition in different markets (UCOMP) on the relationship between Social Media Use (SMUSE) and Export Performance (EXP). There was no previous examination of the mechanism through which the use of social media affected the exporting efforts. Although a number of studies illustrated the direct effects of adoption/use of social media on: the number and quality of contacts (Stelzner, 2013; Miller, 2012; Groza et al., 2012; Rodriguez et al., 2012); brand awareness (Hutter and Hautz, 2013; Michaelidou et al., 2011; Mangold and Foulds, 2009); understanding customers' views and preferences (Jussila et al., 2014; Kietzmann et al., 2011; Soar, 2012); and understanding competition in different markets (Rapp et al., 2013; Agnihotri et al., 2012; He et al., 2013; Dey et al., 2011), the majority of these studies were theoretical except for a very few which statistically examined these direct relationships with different measures (see Rodriguez et al., 2012; Michaelidou et al., 2011), but not the indirect effects. Hence, this study provides an attempt to analysis the indirect effects of SMUSE on export performance through these previously mentioned factors. The study's findings revealed that the indirect effects of SMUSE on export performance were confirmed by the Quality of International Business Contacts (QOIBC), Understanding Customers' views and Preferences (UCUST), and Understanding Competition in Different Markets (UCOMP). However, the Number of International Business Contacts (NOIBC) and Brand Awareness (BA) had no indirect effect through which SMUSE influence Export Performance.

Moreover, this study adds to the existing literature by examining the interaction effect of both Customer Engagement (CE) and Cultural Adaptation (CA) in explaining export performance. For CE, the results show that it enhances the relationships between Social Media Use (SMUSE) and: NOIBC; QOIBC; BA; UCUST;

and UCOMP. Finally, CA is a moderator between UCUST, UCOMP and EXP. To the best of the researcher's knowledge, these relationships were not tested before.

Finally, this study adds to the knowledge by examining the moderating role of: experience of using social media; size of the firm; number of countries which the firm exports to; and the type of industry (manufacturing or services) which the firm belongs to, for the whole research model which to the best of the researcher's knowledge, were not tested before. The results show that: experience of using social media; size of the firm; number of countries that the firm exports to, are moderators.

## **5.5 Practical Implications**

This study highlights that Perceived Ease of Use (PEOU), Perceived Relative Advantage (PRA) and Subjective Norms (SN) affect SME B2B firms' use of social media. This study's results have several important implications for managers in SME B2B firms. For such firms that intend to adopt or use social media for their exporting efforts, they need to enhance and develop their managers' perceptions regarding PEOU and PRA. This simple to use interface is an important criterion for a social-media-related application which is considered to be an important determinant of the use of that technology. Furthermore, managers should keep in mind that useful experience is an important element in the use of social media technology. Hence, according to the results, managers must have the belief that social media increases/enhances their job performance. Additionally, with regard to external pressures, the results showed that the use of social media was affected by Subjective Norms (SN) from experts, competitors, and customers. Accordingly, firms should ensure that managers are aware of their competitors' use of social media use and that they have heard relevant comments by industry leaders and industry organisations. Hence, the organisation, with those social networks, should be aware of the effects of these networks when it comes to the use of new technology. It is important for managers not to use this new technology automatically because of this external pressure without first evaluating this new technology in accordance with PEOU and PRA which were illustrated in our model.

Moreover, our study suggests that training is a moderator in the relationship between SN and SMUSE. Therefore, training is an important enhancer of SMUSE and should be a major managerial concern. A lot of training is needed for managers when pursuing the use of these different social media tools which can help them to increase their performance and productivity. The lack of experienced and skilled staff prevents these firms from the successful use of social media. The establishment of a specialized department in charge of social media implementation within the firm should be considered perhaps as an interesting investment by export firms. However, as always the case in many SMEs firms with constrained resources, firms have to encourage their managers to attend training programmes, conferences, and webinars; these are highly recommended for the successful implementation of social media.

In addition, our findings suggest that innovativeness of the firm (INNOV) is an important tool to amplify the use of social media since it moderates the relationship between SN and SMUSE. Consequently, the firms should be open to new ideas and should work on new solutions since the firms with high levels of innovativeness are more likely to use new technology.

Moreover, the results confirmed that the size of the firm played a moderating role for the implication of using social media for export efforts. Large SMEs are more likely to benefit from social media since, because of their respective sizes, they are able to devote more attention and human and financial resources (i.e. more employees and grater expenditure) to enable them to make use of recent technological developments. Consequently, they can benefit more than smaller SMEs from using social media. However, despite their limited resources, smaller SMEs are able, also, to follow the same path in order to engage with customers and, potentially, increase their numbers of new customers; this allows them to tap into a larger-knowledge-base.

In addition, a key managerial implication of this study is the effect of SMUSE on EXP. It was found that SMUSE affected export performance indirectly rather than directly through QOIBC, UCUST and UCOMP. This means that these firms' export performance is not achieved automatically through SMUSE. Hence, these factors should be a major managerial concern.

The first factor to be considered is the QOIBC. Since different social media platforms, like Facebook, LinkedIn, Twitter, Blogs, contain detailed information about different prospective customers, organisations should use this type of information. Such information could be gained by researching the profiles of these prospective customers in order to reach the top quality sales leads. Additionally, as mentioned by Hamill et al. (2011), firms can use the customer mapping exercise; which is available on LinkedIn sites, to build a customer database that can be used to identify the ideal prospective customers who most suit the firm's business activities.

The second and third factors are related to market intelligence. Different social media platforms can be used to gather information about clients and potential markets. Firms can monitor and listen to what is being said on different social media platforms, such as blogs, podcasts, forums and online communities, about their products, customers' needs and preferences so that they can identify the trends in different markets. Moreover, marketers can identify the social media platforms that their customers are using and try to get involved in those channels. Additionally, firms can track competitors' activities on different social media platforms. This can be achieved by monitoring competitors' interactions with their customers; and the comments of their customers and the competitors' interaction to these comments. These are considered to be a new market research compared to the traditional market research. However, this information requires careful evaluation regarding its validity.

Additionally, our results point to the effect of SMUSE on both NOIBC and BA. Attracting new customers is one of the benefits of social media. Managers can use different social media platforms to get in touch with partners, retailers or simply people who might have knowledge in a specific field which could help in obtaining a large network of contacts.

Furthermore, since BA is one of the key aspects of the firm's competitive advantage (Mitchell, et al., 2001), managers can use these social media platforms to communicate with customers since this type of marketing communication can have a positive influence on perceived BA. Moreover, firms can create online communities for their brands through different forms of social media in order to promote their products and services.



This study reveals that Customer Engagement (CE) is a moderator between SMUSE and: NOIBC; QOIBC; BA; UCUST; and UCOMP. Building on current findings, the implications emanate from CE's moderating effect. Managers should focus on ways to enhance CE to ensure the achievement of a wide number of international business contacts with high quality, brand awareness and market intelligence. Firms should focus on engaging the customers emotionally and behaviourally; this means that the communications, transmitted via online social media platforms, should encourage various forms of interaction with the brand. Understanding what your customers are looking for is an essential part of CE. Based on what firms' customers are looking for and what the firms' goals are, firms have to consider how they will engage customers. In doing so, firms need to adopt the suitable (personal) tone in conversations with their customers rather than a formal tone. Firms can create their own content which adds value for different social media platforms and which encourages them to engage in transactional behaviour. LinkedIn discussion groups are beneficial places for such engagements with key stakeholders.

Moreover, Cultural Adaptation (CA) showed a moderating role between UCUST, UCOMP and EXP. As asserted by Singh (2012), countries show unique local differences in terms of how they use different social media platforms for both business and personal use. Accordingly, in order to enhance the EXP, managers should consider the adaptation of their marketing communications to the local culture on different social media platforms so that these reflect the target market's values, laws, rules and customs. This adaptation warrants special attention because of its essential role in determining success or failure of the social media effort in a foreign country. However, as we mentioned before, it will be more challenging for those firms that are targeting multi countries compared to those that targeting one country when it comes to social media usage which could affect the outcome of its use. Hence, it's preferable for managers to focus their marketing efforts on social media to one country instead of multi countries which was supported by the results of the moderating effect of number of countries that the firm exports to.

## **5.6 Limitations and Directions for Future Research of the Study**

First, the cross-section approach adopted in this research could be considered to be a limitation. Its implementation in the quantitative research requires the use of survey questionnaire to gather information and, thus, reflects the opinions of respondents at a given point. The researcher was unable to determine the causal inferences of the effects between the study dimensions because the study was not longitudinal in design. Despite the use of surveys being of value in predicting the relationships between variables, the researcher was unable to draw causal relationships between constructs. Hence, the essence of the casual relationships among the constructs at the usage stage and at the implication stage was restricted by the cross-sectional approach adopted in the study. The organisational experience from use to implication stage would be reflected most accurately by selection of longitudinal methodology, given that the effects of social media marketing efforts might prove challenging to measure in the short term. These aspects could not be studied here, however, due to lack of time. Despite the considerable time needed to implement longitudinal research in order to evaluate this study's model so that causal relationships among the study constructs could be identified, these relationships might be characterised more precisely in future studies.

Second, our study conducted a significant number of surveys with the managers responsible for social media use in a broad range of organisations. Furthermore, the integration of our approach with other methodologies, such as the netnography method advanced by Kozinets (2002), observational data, or data analytics would have enabled us to better understand how the use of social media interplays with other factors at the individual or firm level.

Third, one of the limitations of this study was to ask companies to report their perceptions through self-reporting regarding some variables which might be misleading. Thus, future research could address the survey directly to the customers, suppliers, distributors. However, this was beyond the scope of this study. By including the customers, suppliers and distributors, this will provide additional validity to the study.

Fourth, given that most current research continues to focus on Technology Acceptance Model (TAM) and Innovation Diffusion Theory (IDT), there are other variables that need to be investigated to improve the prediction of social media use. Future research may apply Unified Theory of Acceptance and Use of Technology (UTAUT) aggregated from eight dominant technology acceptance models as a theoretical base to explain the use of social media.

Fifth, demographic factors, such as age, gender and education, were not examined in this research. Therefore, the evaluation of how these factors interplay with SME B2Bs' social media use may be of benefit in future research.

Sixth, this study did not examine the extent to which certain social media platforms were the most impactful on export performance. Further research could focus on micro level regarding social media platforms and which are the most critical for B2B firms since, in this study, we asked the respondents about the extent of their general use of social media. As mentioned by Kaplan and Haenlein (2010), there are a lot of social media applications, like LinkedIn, Facebook and Twitter, with different or unique functionalities and characteristics to be used by these firms.

Seventh, Carson and Gilmore (2000) described the stage model of SME marketing development. This is a process which may have future implications as regards the identification of the most applicable and productive stage at which social media platforms can be implemented within the firm's lifecycle. Future research could try to identify which social media tools could be used in the firm's lifecycle phases as many studies focuses only on the earlier phases of the firm's lifecycle.

Eighth, the measures used for social media use, understanding customers' views and preferences, understanding competition in different markets and cultural adaptation were new and were shown to be valid and reliable in predicting export performance. However, additional research still needs to be carried out to improve and increase the measures' robustness. This could include developing more items and re-wording others with the goal of having a more complete set of measures.

Ninth, this study used single items scales for both number and quality of international business contacts; hence, future research should focus on multi-items scale development to enhance knowledge in this area and to capture these concepts.

Additionally, the export performance variable was measured subjectively. However, export performance can be measured using both objective and subjective (perceptual) measures to better capture the export performance.

Tenth, this research did not include the attitude toward the technology although, as suggested by Michaelidou et al. (2011), this factor is changing in the B2B context. Further research could examine this factor and its relationship with the actual use of the technology.

Eleventh, this study did not address the challenges/barriers of social media usage in the international marketing environment. Future research could attempt to examine the challenges that might arise from using this new technology.

Twelfth, this study has provided evidence of the moderating role of training and innovativeness of the firm on the relationship between the antecedents of the use of social media and its use construct. However, there is a need for a more in depth look into other moderators which could be tested by future research such as top management support, organisational behaviour, cost of operating or/and paying for professional service from third parties. Uncovering such factors should provide additional insights to the management about the best way to manage a company's social media strategy in order to maximize performance.

Thirteenth, the use of social media is important in business-to-customer context as it is in business-to-business context. Future research could search for the factors that affect the use of social media for their exporting efforts which could be different from those in business-to-business context.

Fourteenth, this study focused on the exporters' use of social media in UK context. Future research should try to look at other contexts such as emerging markets which are very likely to be different from the UK context. Furthermore, comparative studies, based on large multiple-country samples, could be future research avenue.

Fourteenth, given that social media should not be considered in isolation as a means of communication, a study of the consolidation of social media marketing with traditional marketing strategies might be beneficial since both remain relevant and are not mutually exclusive. This could illustrate explicitly the advantage/value that the social media integration process could have on the company.

Finally, for implementing social media within firms, managers need to be aware of not only the opportunities that could be created from this new technology but, also, the risks which could be emerged from using it. This study did not analysis the threat of social media to corporate reputation which could be destroyed by either the customers or the firm's employees. Hence, future research could investigate to what extent the social media threats and corporate response strategies are applicable in the B2B context by trying to investigate how firms could manage successfully the risks that could arise from losing the firm's corporate reputation.

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# **APPENDICES**



## **Appendix A**

### **Participant Information Sheet**

#### **Participant Information Sheet**

#### **Marketing Department**

#### **Exporting B2B Solutions: The Impact and Contribution of Using Social Media- Research Project**

I, Ziad Hassan Abdelmoety, invite you to participate in interview based research designed to study Exporting B2B Solutions: The Impact and Contribution of Using Social Media.

Before you decide whether or not to participate in an interview, it is important that you understand why the research is being done and what it will involve. Please read the following information and take any time necessary to decide whether or not you are willing to participate. If the information given here is not clear or if you would like more, please let me know and I will try to provide clarification and further information.

The interviews are being conducted as part of my work towards the degree of PhD at the University of Strathclyde. It is intended that, in the long run, the research will contribute to investigating how companies from the Business-to-Business (B2B) sectors can potentially benefit from adopting social media in their exporting efforts.

I intend to conduct a small number of indepth and personal interviews based on the research survey to enable me to develop satisfactory measures to assess. I intend to interview sales/marketing or exporting managers within these firms so that I am able to gather a wide range of views on those issues that emerge as being of key concern.

If you decide to support my research by granting me an interview, you will remain free of course to withdraw from the study at any time and without giving a reason and to forbid the use of any material gathered in the interview.

I will keep the collected interview data secure and confidential on University premises either in a locked filing cabinet or password protected University based computer files. I will not use names or personal data in any output of this research.

You will be aware of the significance of this research and there is an opportunity before you now to participate. In return, you will receive an executive summary of the findings in due course. The report of the full results of my study will be published in a PhD thesis at the University of Strathclyde.

If you wish to raise any ethical concerns either about this research or the way it is being conducted, please contact Prof Spiros Gounaris, the Chief Investigator for my project at the University of Strathclyde.

If you are happy to be involved in the project, please sign and return the attached consent form to me. If not, I thank you for your attention.

Thank you very much

Ziad Hassan Saeed Abdelmoety  
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**Appendix B**  
**Consent Form**

**Consent Form**

**Marketing Department**

**Exporting B2B Solutions: The Impact and Contribution of Using Social Media-  
Research Project**

- 1- I confirm that I have read and understood the information sheet for the above project and the researcher has answered any queries to my satisfaction.
- 2- I understand that my participation is voluntary and that I am free to withdraw from the project at any time, without having to give a reason and without any consequences.
- 3- I understand that I can withdraw my data from the study at any time.
- 4- I understand that any information recorded in the investigation will remain confidential and no information that identifies me will be made publicly available.
- 5- I consent to being a participant in the project.
- 6- I consent to being audio recorded as part of the project.

Name of Participant

Date

Signature



## **Appendix C**

### **Ethics Application Form**

# Department of Marketing

## Ethics Application Form 2011 / 2012



*To be completed by **all** dissertation students.  
(Please read notes before completing this form).*

|  |  |
|--|--|
| <b>Name of Researcher (Students):</b>                                  | Ziad Hassan Saeed Abdelmoety   |
| <b>Email Address</b>   | ziad-hassan-saeed-abdelmoety@strath.ac.uk  |
| <b>Telephone number</b>  | Home: 01415529124<br>Mobile: 07869708569   |
| <b>Degree programme</b>  | PhD Marketing  |
| <b>Name of supervisor</b>  | Prof Spiros Gounaris   |
| <b>Title of the research<br/>(Proposed title of your dissertation)</b> | Exporting B2B Solutions: The Impact and Contribution of Using Social Media.  |
| <b>Briefly outline the aims and objectives of your research</b>        | Deriving a comprehensive empirically derived theoretical framework that will allow SMEs to understand the implications as well as the limitations of using social media for their exporting efforts. |

### Methodology:

|  |  |
|--|--|
| How do you propose to communicate your research objectives to your intended respondents? | First, personal interviews will be conducted after initial phone contacts and subsequent E-mails sent to the participant with an information sheet explaining the objectives of the research. Consequently, I will send by email questionnaires to the participants along with a covering letter explaining my intentions.   |
| How is the research to be conducted?<br>(See notes if to be conducted online)            | By sending questionnaires using Qualtrics software and by conducting personal interviews.  |
| Where do you propose to conduct the research?  | Surveys will be conducted remotely from the respondents. Regarding the interviews, they will be done face-to-face.   |
| What are the expected outcomes of the research?  | Promote international exchanges and exports and especially for SMEs, which can improve the scope of their contacts and networking, increasing the company/brand awareness and ultimately their sales abroad. The data for this research is being collected for no other purpose than academic research and to achieve part-fulfilment of the requirements for the PhD degree. Also, data collected will be destroyed upon completion of the survey report. |
| Duration of research   | From 1 November 2013 to April 2014 for the questionnaires and the interviews will be conducted between 1 July 2013 till Oct 2013. These are estimates of the time required for each.   |

### Characteristics of Target Respondents:

|   |   |
|---|---|
| Estimated number of participants  | Target 100-300 for surveys , and 10-20 for the interviews.      |
| Age range<br>(normally 18-65, permission required for age range exceeding 65) | From 18-65  |
| Gender of volunteers  | <b>Male and Female</b>  |
| Any special skills, attributes?   | Marketing/sales or exporting managers of SMEs- B2B firms in UK. |
| Any issue of vulnerability related to your target audience?                   | No  |
| Inclusion/exclusion criteria (if appropriate)                                 | No  |

|   |   |
|---|---|
| Recruitment method(s), if known   | Published databases of firms (Hoovers,FAME,etc)                                       |
| <b>Informed Consent: participants must be informed of their right to leave or drop out of the research process at any time.</b> |   |
| Is any fee/ payment/ reward/ incentive involved?  | <input checked="" type="checkbox"/> No<br><input type="checkbox"/> Yes (give details) |

**Signature of Applicant**

.....

**Signature of Supervisor**

.....

**This section is to be completed by the  
Departmental Ethics Committee**

Approved by: .....

Date Approved: .....

Note: If there is any subsequent variation to any aspect of this research (location, investigators, methodology, risks, etc.) you are required to submit a new application.



## **Appendix D**

### **Interview Guide**

#### **Introduction**

Thanks you for allowing me to talk with you. This research would not be possible without valuable participation. The benefits of this research are the implications for how SMEs B2B firms may benefit best from using social media for their exporting efforts. Therefore, this research aims to empirically investigate SMEs B2B firms' actual use of social media and how it impacts their export performance.

#### **Main Interview**

##### **Use of Social Media**

**Q1:** So let's now start discussion about social media. Do you use them?

If yes, why?

If no, why?

**Q2:** In general for what different reasons do you use social media?

**Q3:** In terms of improving the scope of your company's contacts and networking, do social media help? Can you please share with me an example?

**Q4:** In terms of understanding customers' views and preferences in different markets, do social media help? Can you please share with me an example?

**Q5:** In term of understanding competition in different markets, do social media affect? Can you please share with me an example?

##### **Difficulties in the Use of Social Media**

**Q6:** How confident are you in using social media?

**Q7:** Did you ever encounter any problems? Can you please give me one or two examples?

**Q8:** What sort of actions did you take to resolve these problems?

**Q9:** As an exporter, you do business with people from different cultures. Has culture been an issue in the use of social media? Can you give me an example to help me understand?

#### **Training**

**Q10:** How do you train the marketing staff to meet the requirements of using social media?



**Appendix E**  
**Questionnaire**

Part A: Demographic and General Business Background:  
Please provide the following information about you and your firm

1. What is your position within the firm?

- Upper Management     Middle Management     Owner  
 Other

2. What is your functional area?

- Marketing and sales     IT     Production     Exporting  
 Other

3. Q3. Years of your personal experience in industry

4. Q4. Age of respondents

5. Q5. The respondents E-mail

6. Q6. Which industry sector best describes your company?

7. Q7. What is your primary business?

- Business-to-Business  
 Business-to-Customer

8. Q8. Number of full-time employees within your company

9. Q9. Please indicate the annual turnover of your company

- Less than £100,000     £100,001 to less than £500,000     £500,00 to less than £1M     £1M to less than £5M     £5M to less than £10M     £10M to less than £40M
- £40M and more

10. Q10. Does your company export to foreign country markets?

- Yes
- No

11. Q11. Please list the foreign country markets that your company export to

12. Q12. Do you use social media in your exporting efforts for: contacts with international business customers, increase awareness of your company & brand, and to know about international customers' views/preferences (e.g monitoring what has been said about the firms/products..etc) and about their international competition (e.g. Gaining insights into their competitors' strengths and weaknesses comparing to your company, what their competitors are doing ..etc)?

- Yes
- No

13. Q13. Which of the following social networking sites is your company using now?

- Facebook     LinkedIn     MySpace     Twitter     YouTube     Flickr
- Others

14. Q14. How long has your company used social networking sites (e.g., Facebook, LinkedIn, MySpace, Twitter, YouTube, Flickr, etc.) for marketing purpose?

- More than 7 years
- 6-7 years
- 4-5 years
- 2-3 years
- Less than 1 year
- Not currently using

**Part B: Usage Stage:**

The following factors which represented by the following Questions are expected to motivate your company to use social media for assisting exporting efforts in (getting contacts with international business customers, awareness of your company & brand globally and knowing about the international customers' characteristics and their international markets).

Please choose a number between 1 and 5 for each of these questions with (1: Strongly disagree; 2: disagree; 3: Don't know; 4: agree; 5: Strongly agree)

**15. Q15. Perceived Ease of Use**

|  | Strongly Disagree     | Disagree              | Neither Agree or Disagree | Agree                 | Strongly Agree        |
|--|-----------------------|-----------------------|---------------------------|-----------------------|-----------------------|
| It is easy for me to remember how to perform tasks using the social media platforms.         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| I believe that it is easy to get social media sites to do what I want them to do.            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| My interaction with social media sites for exporting efforts is easy and understandable.     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| I find social networks sites flexible to interact with.                                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| It is easy for me to become skillful at using social networks for exporting efforts.         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| Overall, I believe that social media sites are easy to use for marketing to other companies. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |

16. Q16. Perceived Relative Advantage

|  | Strongly Disagree     | Disagree              | Neither Agree or Disagree | Agree                 | Strongly Agree        |
|--|-----------------------|-----------------------|---------------------------|-----------------------|-----------------------|
| Using social media sites enables me to accomplish exporting efforts more quickly.                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| Using social media sites improves our exporting performance.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| Using social media sites gives me greater control over my international social interactions.           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| Using social media sites improves the quality of the firm's exporting activities.                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| By using social media, our firm would find it more effective in exporting efforts.                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| Using social media sites allows me to accomplish more exporting work than would otherwise be possible. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| Overall, I find using social media sites will be advantageous to my company.                           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |

17. Q17. Observability

|  | Strongly Disagree     | Disagree              | Neither Agree or Disagree | Agree                 | Strongly Agree        |
|--|-----------------------|-----------------------|---------------------------|-----------------------|-----------------------|
| I have seen social media in use outside my company.                        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| It is easy for me to observe others using social media outside my company. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| There are plenty of opportunities to see others using social media.        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |

18. Q18. Subjective Norms

|  | Strongly Disagree     | Disagree              | Neither Agree or Disagree | Agree                 | Strongly Agree        |
|--|-----------------------|-----------------------|---------------------------|-----------------------|-----------------------|
| Most people who are important to our company (stakeholders) think that we should use social media sites. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| It is expected that companies like ours should use social media sites.                                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| Companies like ours think that we will benefit from social media in our company.                         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| Our competitors use social media sites.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| Our customers use social media sites.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |

19. Q19. Innovativeness of the Firm

|   | Strongly Disagree     | Disagree              | Neither Agree or Disagree | Agree                 | Strongly Agree        |
|---|-----------------------|-----------------------|---------------------------|-----------------------|-----------------------|
| If our firm heard about a new information technology, it would look for ways to experiment with it. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| Among our peers, our company is usually the first to try out new information technologies.          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| Overall, our company likes to experiment with new information technologies.                         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |



20. Please choose a number between 1 and 5 to indicate the extent of practice of the following factors (1: Not at all; 2: Occasionally; 3: Frequently; 4: Extensively; 5: All the time)

|   | Not at all            | Occasionally          | Frequently            | Extensively           | All the time          |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Training: (training for using social media through regular training programs/sessions, aggregate and share external conferences, webinars, and industry articles) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Part C: Implementation Stage:

The followings is about the use of social media in your firm when it comes to exporting.

Please indicate the degree you agree / disagree with each of the following statements

(1: Strongly disagree; 2: disagree; 3: Don't know; 4: agree; 5: Strongly agree)

21. When it comes to exporting

|  | Strongly Disagree     | Disagree              | Neither Agree or Disagree | Agree                 | Strongly Agree        |
|--|-----------------------|-----------------------|---------------------------|-----------------------|-----------------------|
| We use social media to generate sales leads abroad.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| We use social media to sustain our relationships with our present customers.                           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| We use social media to strength our relationships with our present customers.                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| We are unsure how to make the best out of social media.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| Social media is a channel through which we collect intelligence on the needs of customers abroad.      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| We keep our eyes on what international customers have to say for us in various social media platforms. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| Every social media initiative we launch abroad has very clear objectives to serve and meet.            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| We actively seek to have international customers engaged with our social media initiatives.            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |

|  | Strongly Disagree     | Disagree              | Neither Agree or Disagree | Agree                 | Strongly Agree        |
|--|-----------------------|-----------------------|---------------------------|-----------------------|-----------------------|
| We have revised aspects of our exporting strategy based on the intelligence we generated through social media. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| We have revised aspects of our exporting tactics based on the intelligence we generated through social media.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| Every social media initiative we launch abroad has very clear criteria against which it is evaluated.          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| We very rarely evaluate the social media initiative we launch abroad.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |

Part D: Outcomes:

The following questions from 22-27 are about the outcomes of using social media for your exporting activities

How would you evaluate the performance of your social media efforts, in each of the following statements?

(1: Poor; 2: Fair; 3: Good; 4: Very Good; 5: Excellent)

22. Q22. Number of International Business Contacts

|   | Poor                  | Fair                  | Good                  | Very Good             | Excellent             |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Establishing expanding contacts with business customers abroad. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

23. Q23. Quality of International Business Contacts

|  | Poor                  | Fair                  | Good                  | Very Good             |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| Reaching the top quality international business contacts | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

24. Q24. Brand Awareness

|  | Poor                  | Fair                  | Good                  | Very Good             | Excellent             |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Recognizing your company/brand among other competing companies/brands in social media. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Making your company/brand comes to the minds of your business customers.               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Making your business customers know what your brand stands for (brand knowledge).      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Making your business customers have an opinion about your brand (brand opinion).       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

25. Q25. Understanding Customers' Views and Preferences

|   | Poor                  | Fair                  | Good                  | Very Good             | Excellent             |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Understanding what customers say about your firm, its products.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Understanding the preferences of your international B2B customers.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Monitoring the experience of doing business with our existing customers that are discussed in different social media platforms. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

26. Q26. Understanding Competition in Different Markets

|   | Poor                  | Fair                  | Good                  | Very Good             | Excellent             |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Gaining insights into different markets trends.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Gaining insights into your competitors' strengths and weaknesses comparing to your company. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Gaining insights into your competitors' strategy changes.                                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Forecasting your competitors' future plans.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

27. Q27. Export Performance

|   | Poor                  | Fair                  | Good                  | Very Good             | Excellent             |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Contribution of social media to the overall profit of your company. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Contribution of social media to the market share.                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Contribution of social media to the export sales.                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

28. Q28. Please choose a number between 1 and 5 to indicate the extent of practice of the following factors (1: Not at all; 2: Occasionally; 3: Frequently; 4: Extensively; 5: All the time)

To adjust for Cultural Differences

|  | Not At All            | Occasionally          | Frequently            | Extensively           | All the time          |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| We translate the body of our social media messages into the local language.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| We adjust the timing, tone, and content of our social media messages to better appeal to the target audience in the local markets. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| We adapt the social media messages as we learn more about the local culture and values.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| We adjust the social media messages according to local laws, rules, and customs.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| We seek to adjust our social media strategy to make it more attractive to the target audience in the local markets.                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

29. Q29. Please indicate the degree you agree / disagree with each of the following statements (1: Strongly agree; 2: Agree; 3: Don't know; 4: Disagree; 5: Strongly disagree)

Customer Engagement

|  | Strongly Disagree     | Disagree              | Neither Agree or Disagree | Agree                 | Strongly Agree        |
|--|-----------------------|-----------------------|---------------------------|-----------------------|-----------------------|
| I have found that my customers can continue using this online social platform for very long periods at a time. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| I have found that my customers devote a lot of energy to this online social platform.                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| I have found that my customers usually try very hard to perform well on this online social platform.           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| I get non-distracted attention of my customers when interacting through this online social platform.           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| I feel that my customers are immersed in this online social platform.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| I have noticed that my customers pay a lot of attention to this online social platform.                        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| I find my customers enthusiastic when using this online social platform.                                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| My customers find this online social media platform meaningful and purposeful.                                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| I find my customers excited when using this online social platform.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |
| My customers are generally interested in this online social platform.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> |

30. Q30. Are there any other comments you would like to make?

31. Your contribution to this research is greatly appreciated.  
Any information will be kept strictly confidential and anonymous.  
Thank you very much for your help.

Please indicate if you would like a summary of the findings from the research by entering your email address below.



## Appendix F

### Non-response Bias Analysis

| <b>Constructs</b> | <b>t</b> | <b>Sig.</b> |
|-------------------|----------|-------------|
| <b>PEOU</b>       | .230     | .818        |
| <b>PRA</b>        | 1.050    | .295        |
| <b>OBSERV</b>     | -1.391   | .166        |
| <b>SN</b>         | -1.749   | .082        |
| <b>INNOV</b>      | -.312    | .755        |
| <b>SMUSE</b>      | -.403    | .687        |
| <b>TRAIN</b>      | 1.291    | .198        |
| <b>NOIBC</b>      | -.414    | .680        |
| <b>QOIBC</b>      | .302     | .763        |
| <b>BA</b>         | -1.752   | .081        |
| <b>UCUST</b>      | -1.184   | .238        |
| <b>UCOMP</b>      | -.036    | .971        |
| <b>EXP</b>        | 1.153    | .250        |
| <b>CA</b>         | -.764    | .446        |
| <b>CE</b>         | 1.539    | .126        |

## Appendix G

### Mahalanobis Distance ( $D^2$ ) for Items Outliers

| Observation Number | Mahalanobis Distance ( $D^2$ ) | $D^2/df$ |
|--------------------|--------------------------------|----------|
| 1                  | 77.27580                       | 1.136409 |
| 2                  | 64.57487                       | 0.94963  |
| 3                  | 83.70374                       | 1.230937 |
| 4                  | 64.15416                       | 0.943444 |
| 5                  | 74.53078                       | 1.096041 |
| 6                  | 74.29556                       | 1.092582 |
| 7                  | 74.92031                       | 1.101769 |
| 8                  | 66.10940                       | 0.972197 |
| 9                  | 75.24961                       | 1.106612 |
| 10                 | 67.29009                       | 0.98956  |
| 11                 | 76.00652                       | 1.117743 |
| 12                 | 56.57090                       | 0.831925 |
| 13                 | 66.79150                       | 0.982228 |
| 14                 | 72.86666                       | 1.071569 |
| 15                 | 69.16574                       | 1.017143 |
| 16                 | 79.35524                       | 1.166989 |
| 17                 | 71.45480                       | 1.050806 |
| 18                 | 67.61665                       | 0.994363 |
| 19                 | 79.19284                       | 1.164601 |
| 20                 | 69.94736                       | 1.028638 |
| 21                 | 81.15586                       | 1.193469 |
| 22                 | 73.40724                       | 1.079518 |
| 23                 | 79.42447                       | 1.168007 |
| 24                 | 59.63405                       | 0.876971 |
| 25                 | 70.15713                       | 1.031723 |
| 26                 | 72.20892                       | 1.061896 |
| 27                 | 80.50886                       | 1.183954 |
| 28                 | 62.77486                       | 0.92316  |
| 29                 | 63.75081                       | 0.937512 |
| 30                 | 74.91920                       | 1.101753 |
| 31                 | 62.48939                       | 0.918962 |
| 32                 | 71.82225                       | 1.05621  |
| 33                 | 62.81612                       | 0.923766 |
| 34                 | 63.21359                       | 0.929612 |
| 35                 | 77.43184                       | 1.138704 |
| 36                 | 72.09515                       | 1.060223 |
| 37                 | 65.49078                       | 0.9631   |
| 38                 | 69.73399                       | 1.0255   |
| 39                 | 54.97059                       | 0.808391 |

| <b>Observation Number</b> | <b>Mahalanobis Distance (D<sup>2</sup>)</b> | <b>D<sup>2</sup>/df</b> |
|---------------------------|---|-------------------------|
| 40                        | 64.19456                                    | 0.944038                |
| 41                        | 67.56003                                    | 0.99353                 |
| 42                        | 66.32780                                    | 0.975409                |
| 43                        | 65.20763                                    | 0.958936                |
| 44                        | 58.79702                                    | 0.864662                |
| 45                        | 78.25957                                    | 1.150876                |
| 46                        | 65.26187                                    | 0.959733                |
| 47                        | 48.59488                                    | 0.714631                |
| 48                        | 65.61246                                    | 0.964889                |
| 49                        | 69.37077                                    | 1.020158                |
| 50                        | 60.82721                                    | 0.894518                |
| 51                        | 62.85364                                    | 0.924318                |
| 52                        | 67.41740                                    | 0.991432                |
| 53                        | 57.88217                                    | 0.851208                |
| 54                        | 60.04714                                    | 0.883046                |
| 55                        | 70.20464                                    | 1.032421                |
| 56                        | 70.22084                                    | 1.032659                |
| 57                        | 52.76686                                    | 0.775983                |
| 58                        | 73.73975                                    | 1.084408                |
| 59                        | 60.47552                                    | 0.889346                |
| 60                        | 56.18520                                    | 0.826253                |
| 61                        | 59.09117                                    | 0.868988                |
| 62                        | 65.43644                                    | 0.962301                |
| 63                        | 60.03151                                    | 0.882816                |
| 64                        | 65.45653                                    | 0.962596                |
| 65                        | 67.52881                                    | 0.993071                |
| 66                        | 65.74161                                    | 0.966788                |
| 67                        | 74.71810                                    | 1.098796                |
| 68                        | 63.56717                                    | 0.934811                |
| 69                        | 62.90604                                    | 0.925089                |
| 70                        | 61.84243                                    | 0.909448                |
| 71                        | 39.65378                                    | 0.583144                |
| 72                        | 53.69377                                    | 0.789614                |
| 73                        | 62.48845                                    | 0.918948                |
| 74                        | 66.79256                                    | 0.982244                |
| 75                        | 67.88470                                    | 0.998304                |
| 76                        | 76.62151                                    | 1.126787                |
| 77                        | 56.82678                                    | 0.835688                |
| 78                        | 62.90010                                    | 0.925001                |
| 79                        | 61.06377                                    | 0.897997                |
| 80                        | 59.19019                                    | 0.870444                |
| 81                        | 63.89663                                    | 0.939656                |
| 82                        | 70.20780                                    | 1.032468                |
| 83                        | 74.44696                                    | 1.094808                |

| <b>Observation Number</b> | <b>Mahalanobis Distance (D<sup>2</sup>)</b> | <b>D<sup>2</sup>/df</b> |
|---------------------------|---|-------------------------|
| 84                        | 61.83652                                    | 0.909361                |
| 85                        | 68.08638                                    | 1.00127                 |
| 86                        | 69.97594                                    | 1.029058                |
| 87                        | 60.91875                                    | 0.895864                |
| 88                        | 63.44011                                    | 0.932943                |
| 89                        | 46.91083                                    | 0.689865                |
| 90                        | 51.49176                                    | 0.757232                |
| 91                        | 60.12665                                    | 0.884215                |
| 92                        | 56.24484                                    | 0.82713                 |
| 93                        | 53.17030                                    | 0.781916                |
| 94                        | 50.29803                                    | 0.739677                |
| 95                        | 58.08401                                    | 0.854177                |
| 96                        | 58.62401                                    | 0.862118                |
| 97                        | 53.16329                                    | 0.781813                |
| 98                        | 59.60749                                    | 0.876581                |
| 99                        | 51.49132                                    | 0.757225                |
| 100                       | 55.38315                                    | 0.814458                |
| 101                       | 50.76961                                    | 0.746612                |
| 102                       | 57.07997                                    | 0.839411                |
| 103                       | 55.48478                                    | 0.815953                |
| 104                       | 42.29831                                    | 0.622034                |
| 105                       | 56.36337                                    | 0.828873                |
| 106                       | 49.32304                                    | 0.725339                |
| 107                       | 62.02495                                    | 0.912132                |
| 108                       | 48.76296                                    | 0.717102                |
| 109                       | 54.86110                                    | 0.806781                |
| 110                       | 55.28947                                    | 0.81308                 |
| 111                       | 53.02510                                    | 0.779781                |
| 112                       | 52.26769                                    | 0.768643                |
| 113                       | 48.22536                                    | 0.709196                |
| 114                       | 47.00967                                    | 0.691319                |
| 115                       | 50.08232                                    | 0.736505                |
| 116                       | 50.27463                                    | 0.739333                |
| 117                       | 54.76981                                    | 0.805438                |
| 118                       | 46.28165                                    | 0.680613                |
| 119                       | 41.38871                                    | 0.608658                |
| 120                       | 47.54616                                    | 0.699208                |
| 121                       | 50.97773                                    | 0.749673                |
| 122                       | 43.43437                                    | 0.638741                |
| 123                       | 42.50926                                    | 0.625136                |
| 124                       | 44.16106                                    | 0.649427                |
| 125                       | 44.49313                                    | 0.654311                |
| 126                       | 44.30962                                    | 0.651612                |
| 127                       | 38.67639                                    | 0.56877                 |

| <b>Observation Number</b> | <b>Mahalanobis Distance (D<sup>2</sup>)</b> | <b>D<sup>2</sup>/df</b> |
|---------------------------|---|-------------------------|
| 128                       | 50.07460                                    | 0.736391                |
| 129                       | 49.42107                                    | 0.72678                 |
| 130                       | 49.62809                                    | 0.729825                |
| 131                       | 34.48398                                    | 0.507117                |
| 132                       | 45.69215                                    | 0.671943                |
| 133                       | 43.93387                                    | 0.646086                |
| 134                       | 41.40202                                    | 0.608853                |
| 135                       | 42.81508                                    | 0.629634                |
| 136                       | 36.61861                                    | 0.538509                |
| 137                       | 45.69824                                    | 0.672033                |
| 138                       | 45.59806                                    | 0.67056                 |
| 139                       | 50.67775                                    | 0.745261                |
| 140                       | 51.88398                                    | 0.763                   |
| 141                       | 39.38989                                    | 0.579263                |
| 142                       | 40.31591                                    | 0.592881                |
| 143                       | 37.54568                                    | 0.552142                |
| 144                       | 38.69574                                    | 0.569055                |
| 145                       | 34.81462                                    | 0.51198                 |
| 146                       | 43.93815                                    | 0.646149                |
| 147                       | 33.51383                                    | 0.49285                 |
| 148                       | 38.19250                                    | 0.561654                |
| 149                       | 46.66694                                    | 0.686279                |
| 150                       | 34.93110                                    | 0.513693                |
| 151                       | 37.81472                                    | 0.556099                |
| 152                       | 42.40422                                    | 0.623591                |
| 153                       | 37.87280                                    | 0.556953                |
| 154                       | 27.42734                                    | 0.403343                |
| 155                       | 28.84629                                    | 0.42421                 |
| 156                       | 35.60441                                    | 0.523594                |
| 157                       | 40.00890                                    | 0.588366                |
| 158                       | 33.53209                                    | 0.493119                |
| 159                       | 40.68230                                    | 0.598269                |
| 160                       | 28.43528                                    | 0.418166                |
| 161                       | 27.22103                                    | 0.400309                |
| 162                       | 26.54887                                    | 0.390425                |
| 163                       | 26.33584                                    | 0.387292                |
| 164                       | 31.64491                                    | 0.465366                |
| 165                       | 24.04482                                    | 0.3536                  |
| 166                       | 19.96757                                    | 0.293641                |
| 167                       | 36.67472                                    | 0.539334                |
| 168                       | 23.48265                                    | 0.345333                |
| 169                       | 37.60375                                    | 0.552996                |
| 170                       | 31.81621                                    | 0.467885                |
| 171                       | 27.90942                                    | 0.410433                |

| <b>Observation Number</b> | <b>Mahalanobis Distance (D<sup>2</sup>)</b> | <b>D<sup>2</sup>/df</b> |
|---------------------------|---|-------------------------|
| 172                       | 21.67220                                    | 0.318709                |
| 173                       | 22.95815                                    | 0.33762                 |
| 174                       | 27.40427                                    | 0.403004                |
| 175                       | 27.40427                                    | 0.403004                |
| 176                       | 17.82805                                    | 0.262177                |
| 177                       | 16.04784                                    | 0.235998                |
| 178                       | 25.67954                                    | 0.37764                 |
| 179                       | 26.23045                                    | 0.385742                |
| 180                       | 15.25519                                    | 0.224341                |
| 181                       | 15.44509                                    | 0.227134                |
| 182                       | 13.47120                                    | 0.198106                |
| 183                       | 11.86323                                    | 0.174459                |
| 184                       | 11.86323                                    | 0.174459                |
| 185                       | 7.98055                                     | 0.117361                |
| 186                       | 73.27593                                    | 1.077587                |
| 187                       | 62.24996                                    | 0.915441                |
| 188                       | 76.33780                                    | 1.122615                |
| 189                       | 83.48758                                    | 1.227759                |
| 190                       | 81.43998                                    | 1.197647                |
| 191                       | 76.20296                                    | 1.120632                |
| 192                       | 75.50541                                    | 1.110374                |
| 193                       | 81.02858                                    | 1.191597                |
| 194                       | 70.49011                                    | 1.036619                |
| 195                       | 87.54664                                    | 1.287451                |
| 196                       | 83.81701                                    | 1.232603                |
| 197                       | 69.73132                                    | 1.025461                |
| 198                       | 82.78221                                    | 1.217385                |
| 199                       | 76.81116                                    | 1.129576                |
| 200                       | 82.80305                                    | 1.217692                |
| 201                       | 82.74540                                    | 1.216844                |
| 202                       | 81.49209                                    | 1.198413                |
| 203                       | 84.72441                                    | 1.245947                |
| 204                       | 81.14468                                    | 1.193304                |
| 205                       | 80.50856                                    | 1.183949                |
| 206                       | 76.58558                                    | 1.126259                |
| 207                       | 89.65686                                    | 1.318483                |
| 208                       | 79.31756                                    | 1.166435                |
| 209                       | 78.59501                                    | 1.155809                |
| 210                       | 83.23263                                    | 1.224009                |
| 211                       | 81.99279                                    | 1.205776                |
| 212                       | 84.66286                                    | 1.245042                |
| 213                       | 85.42184                                    | 1.256204                |
| 214                       | 75.37422                                    | 1.108444                |
| 215                       | 91.23209                                    | 1.341648                |

| <b>Observation Number</b> | <b>Mahalanobis Distance (D<sup>2</sup>)</b> | <b>D<sup>2</sup>/df</b> |
|---------------------------|---|-------------------------|
| 216                       | 86.32223                                    | 1.269445                |
| 217                       | 93.71542                                    | 1.378168                |
| 218                       | 94.74692                                    | 1.393337                |
| 219                       | 86.38579                                    | 1.270379                |
| 220                       | 88.72365                                    | 1.30476                 |
| 221                       | 94.22937                                    | 1.385726                |
| 222                       | 87.60201                                    | 1.288265                |
| 223                       | 87.79661                                    | 1.291127                |
| 224                       | 95.49882                                    | 1.404394                |
| 225                       | 98.62616                                    | 1.450385                |
| 226                       | 92.07456                                    | 1.354038                |
| 227                       | 90.84563                                    | 1.335965                |
| 228                       | 91.40551                                    | 1.344199                |
| 229                       | 85.39821                                    | 1.255856                |
| 230                       | 93.32051                                    | 1.37236                 |
| 231                       | 99.27284                                    | 1.459895                |
| 232                       | 97.44344                                    | 1.432992                |
| 233                       | 98.19889                                    | 1.444101                |
| 234                       | 89.68543                                    | 1.318903                |
| 235                       | 90.87979                                    | 1.336468                |
| 236                       | 97.53823                                    | 1.434386                |
| 237                       | 92.89749                                    | 1.36614                 |
| 238                       | 92.23800                                    | 1.356441                |
| 239                       | 95.63057                                    | 1.406332                |
| 240                       | 101.01267                                   | 1.48548                 |
| 241                       | 108.68408                                   | 1.598295                |
| 242                       | 99.72601                                    | 1.466559                |
| 243                       | 103.21946                                   | 1.517933                |
| 244                       | 101.79052                                   | 1.496919                |
| 245                       | 106.73246                                   | 1.569595                |
| 246                       | 106.16053                                   | 1.561184                |
| 247                       | 99.01725                                    | 1.456136                |
| 248                       | 98.26439                                    | 1.445065                |
| 249                       | 104.94464                                   | 1.543304                |
| 250                       | 104.16490                                   | 1.531837                |
| 251                       | 91.71938                                    | 1.348814                |
| 252                       | 109.76925                                   | 1.614254                |
| 253                       | 100.27733                                   | 1.474667                |
| 254                       | 107.65938                                   | 1.583226                |
| 255                       | 100.85243                                   | 1.483124                |
| 256                       | 111.18930                                   | 1.635137                |
| 257                       | 104.92750                                   | 1.543051                |
| 258                       | 108.08923                                   | 1.589548                |
| 259                       | 106.92634                                   | 1.572446                |

| <b>Observation Number</b> | <b>Mahalanobis Distance (<math>D^2</math>)</b> | <b><math>D^2/df</math></b> |
|---------------------------|--|----------------------------|
| 260                       | 111.85693                                      | 1.644955                   |
| 261                       | 96.41734                                       | 1.417902                   |
| 262                       | 117.36947                                      | 1.726022                   |
| 263                       | 124.89234                                      | 1.836652                   |
| 264                       | 115.34056                                      | 1.696185                   |
| 265                       | 108.90127                                      | 1.601489                   |
| 266                       | 116.81601                                      | 1.717883                   |
| 267                       | 129.96046                                      | 1.911183                   |
| 268                       | 134.73218                                      | 1.981356                   |
| 269                       | 132.69379                                      | 1.951379                   |
| 270                       | 121.38047                                      | 1.785007                   |
| 271                       | 132.21408                                      | 1.944325                   |
| 272                       | 121.71290                                      | 1.789896                   |
| 273                       | 135.77771                                      | 1.996731                   |
| 274                       | 136.61834                                      | 2.009093                   |
| 275                       | 153.01481                                      | 2.250218                   |
| 276                       | 155.11813                                      | 2.281149                   |
| 277                       | 161.05556                                      | 2.368464                   |



## Appendix H

### Mahalanobis Distance ( $D^2$ ) for Scales Outliers

| Observation Number | Mahalanobis Distance ( $D^2$ ) | $D^2/df$ |
|--------------------|--------------------------------|----------|
| 1                  | 8.34766                        | 0.556511 |
| 2                  | 19.33969                       | 1.289313 |
| 3                  | 13.72956                       | 0.915304 |
| 4                  | 17.23286                       | 1.148857 |
| 5                  | 29.26182                       | 1.950788 |
| 6                  | 16.25690                       | 1.083793 |
| 7                  | 8.90943                        | 0.593962 |
| 8                  | 15.53302                       | 1.035535 |
| 9                  | 13.29153                       | 0.886102 |
| 10                 | 8.80417                        | 0.586945 |
| 11                 | 19.37985                       | 1.29199  |
| 12                 | 16.42377                       | 1.094918 |
| 13                 | 24.02362                       | 1.601575 |
| 14                 | 16.42948                       | 1.095299 |
| 15                 | 12.73008                       | 0.848672 |
| 16                 | 10.67099                       | 0.711399 |
| 17                 | 14.61156                       | 0.974104 |
| 18                 | 13.19425                       | 0.879617 |
| 19                 | 25.42562                       | 1.695041 |
| 20                 | 10.21878                       | 0.681252 |
| 21                 | 7.58169                        | 0.505446 |
| 22                 | 12.39972                       | 0.826648 |
| 23                 | 27.62477                       | 1.841651 |
| 24                 | 10.84137                       | 0.722758 |
| 25                 | 6.68880                        | 0.44592  |
| 26                 | 20.27533                       | 1.351689 |
| 27                 | 15.26860                       | 1.017907 |
| 28                 | 18.99119                       | 1.266079 |
| 29                 | 25.22371                       | 1.681581 |
| 30                 | 15.45276                       | 1.030184 |
| 31                 | 19.60348                       | 1.306899 |
| 32                 | 8.28598                        | 0.552399 |
| 33                 | 5.57840                        | 0.371893 |
| 34                 | 11.69295                       | 0.77953  |
| 35                 | 18.22088                       | 1.214725 |
| 36                 | 5.88869                        | 0.392579 |
| 37                 | 9.79051                        | 0.652701 |
| 38                 | 20.86438                       | 1.390959 |
| 39                 | 12.92761                       | 0.861841 |

| <b>Observation Number</b> | <b>Mahalanobis Distance (D<sup>2</sup>)</b> | <b>D<sup>2</sup>/df</b> |
|---------------------------|---|-------------------------|
| 40                        | 5.66055                                     | 0.37737                 |
| 41                        | 10.26872                                    | 0.684581                |
| 42                        | 12.28402                                    | 0.818935                |
| 43                        | 37.12203                                    | 2.474802                |
| 44                        | 9.67724                                     | 0.645149                |
| 45                        | 7.92869                                     | 0.528579                |
| 46                        | 13.12803                                    | 0.875202                |
| 47                        | 15.28096                                    | 1.018731                |
| 48                        | 13.37694                                    | 0.891796                |
| 49                        | 19.05569                                    | 1.270379                |
| 50                        | 13.21513                                    | 0.881009                |
| 51                        | 9.77094                                     | 0.651396                |
| 52                        | 15.68129                                    | 1.045419                |
| 53                        | 11.59643                                    | 0.773095                |
| 54                        | 9.99344                                     | 0.666229                |
| 55                        | 19.38752                                    | 1.292501                |
| 56                        | 21.02671                                    | 1.401781                |
| 57                        | 13.33470                                    | 0.88898                 |
| 58                        | 11.21372                                    | 0.747581                |
| 59                        | 13.45968                                    | 0.897312                |
| 60                        | 8.72967                                     | 0.581978                |
| 61                        | 7.34215                                     | 0.489477                |
| 62                        | 7.19869                                     | 0.479913                |
| 63                        | 10.76334                                    | 0.717556                |
| 64                        | 9.38165                                     | 0.625443                |
| 65                        | 16.97073                                    | 1.131382                |
| 66                        | 7.68237                                     | 0.512158                |
| 67                        | 12.87386                                    | 0.858257                |
| 68                        | 12.98343                                    | 0.865562                |
| 69                        | 24.16033                                    | 1.610689                |
| 70                        | 19.22947                                    | 1.281965                |
| 71                        | 11.91572                                    | 0.794381                |
| 72                        | 17.44646                                    | 1.163097                |
| 73                        | 9.75419                                     | 0.650279                |
| 74                        | 16.55947                                    | 1.103965                |
| 75                        | 4.86968                                     | 0.324645                |
| 76                        | 7.93226                                     | 0.528817                |
| 77                        | 4.03612                                     | 0.269075                |
| 78                        | 15.25632                                    | 1.017088                |
| 79                        | 10.34876                                    | 0.689917                |
| 80                        | 25.80805                                    | 1.720537                |
| 81                        | 25.76367                                    | 1.717578                |
| 82                        | 17.66690                                    | 1.177793                |
| 83                        | 10.74008                                    | 0.716005                |

| <b>Observation Number</b> | <b>Mahalanobis Distance (D<sup>2</sup>)</b> | <b>D<sup>2</sup>/df</b> |
|---------------------------|---|-------------------------|
| 84                        | 19.00108                                    | 1.266739                |
| 85                        | 20.35588                                    | 1.357059                |
| 86                        | 20.80354                                    | 1.386903                |
| 87                        | 17.57452                                    | 1.171635                |
| 88                        | 10.95556                                    | 0.730371                |
| 89                        | 10.35326                                    | 0.690217                |
| 90                        | 13.16312                                    | 0.877541                |
| 91                        | 15.56722                                    | 1.037815                |
| 92                        | 24.18282                                    | 1.612188                |
| 93                        | 10.18273                                    | 0.678849                |
| 94                        | 19.75147                                    | 1.316765                |
| 95                        | 5.68353                                     | 0.378902                |
| 96                        | 14.77696                                    | 0.985131                |
| 97                        | 12.18763                                    | 0.812509                |
| 98                        | 21.04949                                    | 1.403299                |
| 99                        | 9.89219                                     | 0.659479                |
| 100                       | 8.23057                                     | 0.548705                |
| 101                       | 12.88044                                    | 0.858696                |
| 102                       | 19.91440                                    | 1.327627                |
| 103                       | 11.57436                                    | 0.771624                |
| 104                       | 14.70349                                    | 0.980233                |
| 105                       | 9.95414                                     | 0.663609                |
| 106                       | 7.65374                                     | 0.510249                |
| 107                       | 10.99537                                    | 0.733025                |
| 108                       | 9.34782                                     | 0.623188                |
| 109                       | 13.43953                                    | 0.895969                |
| 110                       | 14.64385                                    | 0.976257                |
| 111                       | 7.42085                                     | 0.494723                |
| 112                       | 13.93048                                    | 0.928699                |
| 113                       | 13.45701                                    | 0.897134                |
| 114                       | 9.99080                                     | 0.666053                |
| 115                       | 12.48256                                    | 0.832171                |
| 116                       | 21.67388                                    | 1.444925                |
| 117                       | 18.53484                                    | 1.235656                |
| 118                       | 11.13998                                    | 0.742665                |
| 119                       | 9.07608                                     | 0.605072                |
| 120                       | 7.93985                                     | 0.529323                |
| 121                       | 17.17853                                    | 1.145235                |
| 122                       | 7.84959                                     | 0.523306                |
| 123                       | 10.52233                                    | 0.701489                |
| 124                       | 14.44081                                    | 0.962721                |
| 125                       | 21.36165                                    | 1.42411                 |
| 126                       | 19.04842                                    | 1.269895                |
| 127                       | 5.71590                                     | 0.38106                 |

| <b>Observation Number</b> | <b>Mahalanobis Distance (D<sup>2</sup>)</b> | <b>D<sup>2</sup>/df</b> |
|---------------------------|---|-------------------------|
| 128                       | 10.47589                                    | 0.698393                |
| 129                       | 8.47270                                     | 0.564847                |
| 130                       | 12.96192                                    | 0.864128                |
| 131                       | 13.23089                                    | 0.882059                |
| 132                       | 8.50315                                     | 0.566877                |
| 133                       | 11.67946                                    | 0.778631                |
| 134                       | 10.44730                                    | 0.696487                |
| 135                       | 16.08987                                    | 1.072658                |
| 136                       | 9.45711                                     | 0.630474                |
| 137                       | 14.88755                                    | 0.992503                |
| 138                       | 15.90323                                    | 1.060215                |
| 139                       | 28.59958                                    | 1.906639                |
| 140                       | 14.39644                                    | 0.959763                |
| 141                       | 8.15742                                     | 0.543828                |
| 142                       | 15.31074                                    | 1.020716                |
| 143                       | 18.76165                                    | 1.250777                |
| 144                       | 14.03108                                    | 0.935405                |
| 145                       | 6.88879                                     | 0.459253                |
| 146                       | 7.55999                                     | 0.503999                |
| 147                       | 11.38432                                    | 0.758955                |
| 148                       | 7.82875                                     | 0.521917                |
| 149                       | 6.59390                                     | 0.439593                |
| 150                       | 15.18283                                    | 1.012189                |
| 151                       | 7.54947                                     | 0.503298                |
| 152                       | 9.56260                                     | 0.637507                |
| 153                       | 6.73662                                     | 0.449108                |
| 154                       | 12.74871                                    | 0.849914                |
| 155                       | 12.28800                                    | 0.8192                  |
| 156                       | 6.73667                                     | 0.449111                |
| 157                       | 6.42437                                     | 0.428291                |
| 158                       | 11.83011                                    | 0.788674                |
| 159                       | 7.01153                                     | 0.467435                |
| 160                       | 6.12930                                     | 0.40862                 |
| 161                       | 8.01072                                     | 0.534048                |
| 162                       | 9.83525                                     | 0.655683                |
| 163                       | 6.81163                                     | 0.454109                |
| 164                       | 8.37608                                     | 0.558405                |
| 165                       | 14.58604                                    | 0.972403                |
| 166                       | 6.27064                                     | 0.418043                |
| 167                       | 7.07555                                     | 0.471703                |
| 168                       | 4.26088                                     | 0.284059                |
| 169                       | 6.75806                                     | 0.450537                |
| 170                       | 6.48866                                     | 0.432577                |
| 171                       | 6.30099                                     | 0.420066                |

| <b>Observation Number</b> | <b>Mahalanobis Distance (D<sup>2</sup>)</b> | <b>D<sup>2</sup>/df</b> |
|---------------------------|---|-------------------------|
| 172                       | 11.23739                                    | 0.749159                |
| 173                       | 5.82855                                     | 0.38857                 |
| 174                       | 6.44482                                     | 0.429655                |
| 175                       | 6.44482                                     | 0.429655                |
| 176                       | 5.82855                                     | 0.38857                 |
| 177                       | 4.24529                                     | 0.283019                |
| 178                       | 6.32557                                     | 0.421705                |
| 179                       | 6.48866                                     | 0.432577                |
| 180                       | 5.82855                                     | 0.38857                 |
| 181                       | 5.22056                                     | 0.348037                |
| 182                       | 5.76596                                     | 0.384397                |
| 183                       | 3.11613                                     | 0.207742                |
| 184                       | 3.11613                                     | 0.207742                |
| 185                       | 3.00829                                     | 0.200553                |
| 186                       | 13.62067                                    | 0.908045                |
| 187                       | 21.91671                                    | 1.461114                |
| 188                       | 9.19548                                     | 0.613032                |
| 189                       | 6.82362                                     | 0.454908                |
| 190                       | 12.27258                                    | 0.818172                |
| 191                       | 15.11094                                    | 1.007396                |
| 192                       | 16.30097                                    | 1.086731                |
| 193                       | 22.20236                                    | 1.480157                |
| 194                       | 23.67834                                    | 1.578556                |
| 195                       | 17.17959                                    | 1.145306                |
| 196                       | 16.50197                                    | 1.100131                |
| 197                       | 18.74440                                    | 1.249627                |
| 198                       | 11.35770                                    | 0.75718                 |
| 199                       | 10.27971                                    | 0.685314                |
| 200                       | 18.73517                                    | 1.249011                |
| 201                       | 10.37217                                    | 0.691478                |
| 202                       | 18.65916                                    | 1.243944                |
| 203                       | 26.70398                                    | 1.780265                |
| 204                       | 17.37855                                    | 1.15857                 |
| 205                       | 12.13222                                    | 0.808815                |
| 206                       | 3.39710                                     | 0.226473                |
| 207                       | 10.96378                                    | 0.730919                |
| 208                       | 25.31613                                    | 1.687742                |
| 209                       | 7.85519                                     | 0.523679                |
| 210                       | 10.51864                                    | 0.701243                |
| 211                       | 36.49760                                    | 2.433173                |
| 212                       | 9.43273                                     | 0.628849                |
| 213                       | 23.28632                                    | 1.552421                |
| 214                       | 30.69922                                    | 2.046615                |
| 215                       | 21.97268                                    | 1.464845                |

| <b>Observation Number</b> | <b>Mahalanobis Distance (D<sup>2</sup>)</b> | <b>D<sup>2</sup>/df</b> |
|---------------------------|---|-------------------------|
| 216                       | 12.99506                                    | 0.866337                |
| 217                       | 18.00218                                    | 1.200145                |
| 218                       | 7.04576                                     | 0.469717                |
| 219                       | 23.98634                                    | 1.599089                |
| 220                       | 14.33348                                    | 0.955565                |
| 221                       | 17.95348                                    | 1.196899                |
| 222                       | 17.43132                                    | 1.162088                |
| 223                       | 31.52269                                    | 2.101513                |
| 224                       | 8.37382                                     | 0.558255                |
| 225                       | 12.27481                                    | 0.818321                |
| 226                       | 19.50285                                    | 1.30019                 |
| 227                       | 23.68106                                    | 1.578737                |
| 228                       | 23.92436                                    | 1.594957                |
| 229                       | 14.84177                                    | 0.989451                |
| 230                       | 10.48582                                    | 0.699055                |
| 231                       | 11.65377                                    | 0.776918                |
| 232                       | 8.92158                                     | 0.594772                |
| 233                       | 40.60515                                    | 2.70701                 |
| 234                       | 8.40118                                     | 0.560079                |
| 235                       | 43.08724                                    | 2.872483                |
| 236                       | 20.57380                                    | 1.371587                |
| 237                       | 28.54462                                    | 1.902975                |
| 238                       | 19.86601                                    | 1.324401                |
| 239                       | 7.63918                                     | 0.509279                |
| 240                       | 23.10373                                    | 1.540249                |
| 241                       | 23.79234                                    | 1.586156                |
| 242                       | 32.05002                                    | 2.136668                |
| 243                       | 17.22543                                    | 1.148362                |
| 244                       | 15.84436                                    | 1.056291                |
| 245                       | 17.98496                                    | 1.198997                |
| 246                       | 6.87875                                     | 0.458583                |
| 247                       | 16.11832                                    | 1.074555                |
| 248                       | 15.64349                                    | 1.042899                |
| 249                       | 27.57086                                    | 1.838057                |
| 250                       | 21.27517                                    | 1.418345                |
| 251                       | 10.00369                                    | 0.666913                |
| 252                       | 9.19866                                     | 0.613244                |
| 253                       | 7.39809                                     | 0.493206                |
| 254                       | 15.23622                                    | 1.015748                |
| 255                       | 15.26651                                    | 1.017767                |
| 256                       | 28.03012                                    | 1.868675                |
| 257                       | 16.06793                                    | 1.071195                |
| 258                       | 26.06406                                    | 1.737604                |
| 259                       | 24.51092                                    | 1.634061                |

| <b>Observation Number</b> | <b>Mahalanobis Distance (<math>D^2</math>)</b> | <b><math>D^2/df</math></b> |
|---------------------------|--|----------------------------|
| 260                       | 15.26149                                       | 1.017433                   |
| 261                       | 28.21181                                       | 1.880787                   |
| 262                       | 42.69693                                       | 2.846462                   |
| 263                       | 42.43824                                       | 2.829216                   |
| 264                       | 28.52041                                       | 1.901361                   |
| 265                       | 21.94045                                       | 1.462697                   |
| 266                       | 35.99058                                       | 2.399372                   |
| 267                       | 20.08137                                       | 1.338758                   |
| 268                       | 22.18732                                       | 1.479155                   |
| 269                       | 10.39893                                       | 0.693262                   |
| 270                       | 46.36423                                       | 3.090949                   |
| 271                       | 15.52445                                       | 1.034963                   |
| 272                       | 20.76972                                       | 1.384648                   |
| 273                       | 51.41026                                       | 3.427351                   |
| 274                       | 15.37834                                       | 1.025223                   |
| 275                       | 49.96137                                       | 3.330758                   |
| 276                       | 24.74801                                       | 1.649867                   |
| 277                       | 11.13014                                       | 0.742009                   |

**Appendix I**  
**Items Normality**

|         | Skewness  |            | Kurtosis  |            |
|---------|-----------|------------|-----------|------------|
|         | Statistic | Std. Error | Statistic | Std. Error |
| PEOU1   | -.745     | .146       | .593      | .292       |
| PEOU2   | -.548     | .146       | -.166     | .292       |
| PEOU3   | -.573     | .146       | .028      | .292       |
| PEOU4   | -.824     | .146       | .297      | .292       |
| PEOU5   | -.515     | .146       | -.347     | .292       |
| PEOU6   | -.794     | .146       | .262      | .292       |
| PRA1    | -.278     | .146       | -.724     | .292       |
| PRA2    | -.225     | .146       | -.729     | .292       |
| PRA3    | -.450     | .146       | -.231     | .292       |
| PRA4    | .009      | .146       | -.830     | .292       |
| PRA5    | -.152     | .146       | -.730     | .292       |
| PRA6    | -.227     | .146       | -.926     | .292       |
| PRA7    | -.318     | .146       | 1.651     | .292       |
| OBSERV1 | -.753     | .146       | 1.094     | .292       |
| OBSERV2 | -.661     | .146       | .472      | .292       |
| OBSERV3 | -.727     | .146       | .496      | .292       |
| SN1     | -.350     | .146       | -.584     | .292       |
| SN2     | -.702     | .146       | -.022     | .292       |
| SN3     | -.531     | .146       | .131      | .292       |
| SN4     | -.821     | .146       | 1.402     | .292       |
| SN5     | -.664     | .146       | 1.246     | .292       |
| INNOV1  | -.639     | .146       | .158      | .292       |
| INNOV2  | -.048     | .146       | -1.049    | .292       |
| INNOV3  | -.623     | .146       | -.145     | .292       |
| SMUSE1  | 1.515     | .146       | 1.583     | .292       |
| SMUSE2  | -.953     | .146       | .710      | .292       |
| SMUSE3  | -.867     | .146       | .633      | .292       |
| SMUSE4  | .219      | .146       | -1.040    | .292       |
| SMUSE5  | .734      | .146       | 4.336     | .292       |
| SMUSE6  | -.590     | .146       | -.191     | .292       |
| SMUSE7  | -.075     | .146       | -.937     | .292       |
| SMUSE8  | -.567     | .146       | -.386     | .292       |
| SMUSE9  | .044      | .146       | -1.188    | .292       |
| SMUSE10 | .152      | .146       | -1.277    | .292       |



|         | Skewness  |            | Kurtosis  |            |
|---------|-----------|------------|-----------|------------|
|         | Statistic | Std. Error | Statistic | Std. Error |
| SMUSE11 | -.228     | .146       | -.700     | .292       |
| SMUSE12 | .274      | .146       | -.425     | .292       |
| TRAIN   | .473      | .146       | -1.063    | .292       |
| NOIBC   | .335      | .146       | -.898     | .292       |
| QOIBC   | .435      | .146       | -.881     | .292       |
| BA1     | .058      | .146       | -.882     | .292       |
| BA2     | .067      | .146       | -.914     | .292       |
| BA3     | .069      | .146       | -.975     | .292       |
| BA4     | .000      | .146       | -.950     | .292       |
| UCUST1  | .189      | .146       | -1.024    | .292       |
| UCUST2  | .281      | .146       | -1.127    | .292       |
| UCUST3  | .317      | .146       | -1.077    | .292       |
| UCOMOP1 | .025      | .146       | -.994     | .292       |
| UCOMP2  | .198      | .146       | -.976     | .292       |
| UCOMP3  | .261      | .146       | -1.031    | .292       |
| UCOMP4  | .538      | .146       | -.899     | .292       |
| EXP1    | .610      | .146       | -.937     | .292       |
| EXP2    | .606      | .146       | -.890     | .292       |
| EXP3    | .618      | .146       | -1.012    | .292       |
| CA1     | .648      | .146       | -.872     | .292       |
| CA2     | .567      | .146       | -.938     | .292       |
| CA3     | .585      | .146       | -.937     | .292       |
| CA4     | .536      | .146       | -1.039    | .292       |
| CA5     | .371      | .146       | -1.261    | .292       |
| CE1     | -.146     | .146       | -.639     | .292       |
| CE2     | -.022     | .146       | -.995     | .292       |
| CE3     | .018      | .146       | -.779     | .292       |
| CE4     | .266      | .146       | -.771     | .292       |
| CE5     | .045      | .146       | -.858     | .292       |
| CE6     | -.024     | .146       | -.858     | .292       |
| CE7     | -.071     | .146       | -.689     | .292       |
| CE8     | -.130     | .146       | -.714     | .292       |
| CE9     | .089      | .146       | -.762     | .292       |
| CE10    | -.268     | .146       | -.613     | .292       |

## Appendix J

### Scales Normality

|        | Skewness  |            | Kurtosis  |            |
|--------|-----------|------------|-----------|------------|
|        | Statistic | Std. Error | Statistic | Std. Error |
| PEOU   | -.670     | .146       | .244      | .292       |
| PRA    | -.220     | .146       | -.826     | .292       |
| OBSERV | -.553     | .146       | .304      | .292       |
| SN     | -.579     | .146       | .752      | .292       |
| INNOV  | -.497     | .146       | -.357     | .292       |
| SMUSE  | -.381     | .146       | .163      | .292       |
| TRAIN  | .473      | .146       | -1.063    | .292       |
| NOIBC  | .335      | .146       | -.898     | .292       |
| QOIBC  | .435      | .146       | -.881     | .292       |
| BA     | -.009     | .146       | -.940     | .292       |
| UCUST  | .233      | .146       | -1.073    | .292       |
| UCOMP  | .299      | .146       | -1.037    | .292       |
| EXP    | .597      | .146       | -1.011    | .292       |
| CA     | .457      | .146       | -1.119    | .292       |
| CE     | -.074     | .146       | -.844     | .292       |

## Appendix K

### Multicollinearity

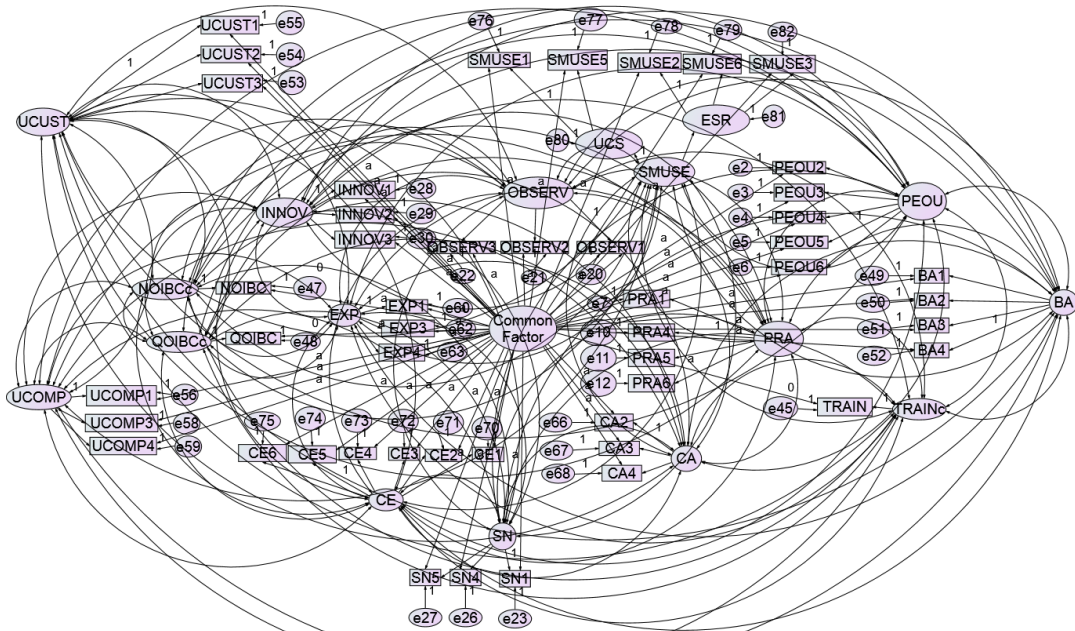
| Model        | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. | Collinearity Statistics |       |
|--------------|-----------------------------|------------|---------------------------|--------|------|-------------------------|-------|
|              | B                           | Std. Error | Beta                      |        |      | Tolerance               | VIF   |
| 1 (Constant) | 3.363                       | .897       |                           | 3.748  | .000 |                         |       |
| PEOU1        | -.214                       | .108       | -.166                     | -1.979 | .049 | .394                    | 2.540 |
| PEOU2        | .205                        | .121       | .173                      | 1.688  | .093 | .262                    | 3.814 |
| PEOU3        | -.002                       | .123       | -.002                     | -.017  | .987 | .274                    | 3.643 |
| PEOU4        | .187                        | .110       | .160                      | 1.694  | .092 | .309                    | 3.236 |
| PEOU5        | .183                        | .108       | .161                      | 1.703  | .090 | .309                    | 3.235 |
| PEOU6        | -.189                       | .107       | -.161                     | -1.762 | .080 | .332                    | 3.014 |
| PRA1         | -.116                       | .131       | -.103                     | -.884  | .378 | .203                    | 4.930 |
| PRA2         | -.318                       | .139       | -.289                     | -2.285 | .023 | .174                    | 5.761 |
| PRA3         | .188                        | .109       | .155                      | 1.731  | .085 | .347                    | 2.883 |
| PRA4         | .413                        | .128       | .379                      | 3.231  | .001 | .201                    | 4.965 |
| PRA5         | .021                        | .144       | .018                      | .143   | .886 | .167                    | 5.981 |
| PRA6         | -.061                       | .123       | -.059                     | -.497  | .620 | .198                    | 5.061 |
| PRA7         | .177                        | .120       | .124                      | 1.469  | .143 | .391                    | 2.559 |
| OBSERV1      | -.048                       | .151       | -.029                     | -.317  | .751 | .334                    | 2.997 |
| OBSERV2      | .034                        | .136       | .024                      | .252   | .801 | .301                    | 3.320 |
| OBSERV3      | -.068                       | .142       | -.047                     | -.479  | .633 | .283                    | 3.530 |
| SN1          | .150                        | .102       | .133                      | 1.468  | .144 | .336                    | 2.975 |
| SN2          | -.158                       | .097       | -.142                     | -1.638 | .103 | .367                    | 2.723 |
| SN3          | .100                        | .135       | .075                      | .737   | .462 | .267                    | 3.749 |
| SN4          | .149                        | .120       | .103                      | 1.246  | .214 | .402                    | 2.487 |
| SN5          | -.025                       | .136       | -.016                     | -.183  | .855 | .343                    | 2.919 |
| INNOV1       | -.162                       | .116       | -.132                     | -1.401 | .163 | .314                    | 3.190 |
| INNOV2       | -.163                       | .098       | -.161                     | -1.662 | .098 | .295                    | 3.387 |
| INNOV3       | .094                        | .131       | .082                      | .716   | .475 | .212                    | 4.716 |
| SMUSE1       | -.130                       | .222       | -.050                     | -.587  | .558 | .389                    | 2.574 |
| SMUSE2       | -.162                       | .141       | -.135                     | -1.154 | .250 | .203                    | 4.921 |
| SMUSE3       | -.168                       | .145       | -.137                     | -1.165 | .245 | .201                    | 4.981 |
| SMUSE4       | -.041                       | .066       | -.042                     | -.612  | .541 | .584                    | 1.712 |
| SMUSE5       | -.082                       | .203       | -.032                     | -.403  | .688 | .435                    | 2.296 |
| SMUSE6       | -.096                       | .102       | -.084                     | -.940  | .348 | .350                    | 2.857 |
| SMUSE7       | .102                        | .106       | .097                      | .961   | .338 | .269                    | 3.717 |
| SMUSE8       | .076                        | .109       | .069                      | .697   | .486 | .286                    | 3.493 |
| SMUSE9       | -.062                       | .113       | -.065                     | -.551  | .582 | .201                    | 4.986 |
| SMUSE10      | -.011                       | .118       | -.012                     | -.093  | .926 | .170                    | 5.888 |
| SMUSE11      | .012                        | .107       | .012                      | .116   | .908 | .240                    | 4.164 |
| SMUSE12      | .027                        | .072       | .025                      | .375   | .708 | .609                    | 1.643 |

| Model  | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. | Collinearity Statistics |       |
|--------|-----------------------------|------------|---------------------------|--------|------|-------------------------|-------|
|        | B                           | Std. Error | Beta                      |        |      | Tolerance               | VIF   |
| TRAIN  | -.086                       | .087       | -.097                     | -.991  | .323 | .291                    | 3.438 |
| NOIBC  | .021                        | .131       | .022                      | .164   | .870 | .151                    | 6.620 |
| QOIBC  | -.019                       | .124       | -.020                     | -.156  | .876 | .167                    | 5.996 |
| BA1    | -.094                       | .125       | -.088                     | -.749  | .454 | .202                    | 4.957 |
| BA2    | .126                        | .153       | .120                      | .826   | .410 | .132                    | 7.578 |
| BA3    | .163                        | .127       | .163                      | 1.289  | .199 | .173                    | 5.766 |
| BA4    | .077                        | .117       | .078                      | .658   | .511 | .199                    | 5.037 |
| UCUST1 | .054                        | .126       | .054                      | .431   | .667 | .178                    | 5.612 |
| UCUST2 | -.013                       | .124       | -.013                     | -.102  | .919 | .165                    | 6.067 |
| UCUST3 | .054                        | .116       | .056                      | .462   | .645 | .188                    | 5.326 |
| UCOMP1 | -.114                       | .105       | -.113                     | -1.079 | .282 | .252                    | 3.966 |
| UCOMP2 | -.018                       | .109       | -.017                     | -.163  | .870 | .247                    | 4.050 |
| UCOMP3 | .146                        | .116       | .149                      | 1.263  | .208 | .198                    | 5.040 |
| UCOMP4 | -.158                       | .108       | -.169                     | -1.466 | .144 | .208                    | 4.808 |
| EXP1   | .039                        | .136       | .044                      | .290   | .772 | .120                    | 8.345 |
| EXP2   | -.073                       | .144       | -.078                     | -.507  | .612 | .117                    | 8.542 |
| EXP3   | -.233                       | .137       | -.253                     | -1.704 | .090 | .126                    | 7.968 |
| CA1    | -.085                       | .108       | -.097                     | -.785  | .433 | .180                    | 5.545 |
| CA2    | .088                        | .124       | .097                      | .712   | .477 | .150                    | 6.689 |
| CA3    | -.308                       | .128       | -.332                     | -2.408 | .017 | .146                    | 6.869 |
| CA4    | .128                        | .112       | .143                      | 1.146  | .253 | .179                    | 5.591 |
| CA5    | .076                        | .105       | .085                      | .726   | .469 | .204                    | 4.913 |
| CE1    | .121                        | .107       | .105                      | 1.135  | .258 | .324                    | 3.085 |
| CE2    | .079                        | .133       | .076                      | .592   | .554 | .166                    | 6.022 |
| CE3    | -.137                       | .138       | -.123                     | -.997  | .320 | .183                    | 5.468 |
| CE4    | .108                        | .104       | .103                      | 1.039  | .300 | .281                    | 3.560 |
| CE5    | .033                        | .119       | .031                      | .275   | .784 | .219                    | 4.569 |
| CE6    | -.093                       | .142       | -.085                     | -.655  | .513 | .163                    | 6.117 |
| CE7    | .007                        | .126       | .006                      | .054   | .957 | .227                    | 4.409 |
| CE8    | -.279                       | .136       | -.247                     | -2.042 | .042 | .189                    | 5.299 |
| CE9    | -.034                       | .130       | -.030                     | -.259  | .796 | .204                    | 4.911 |
| CE10   | .131                        | .124       | .116                      | 1.057  | .292 | .231                    | 4.329 |

a. Dependent Variable: Position

# Appendix L

## Common Method Variance- Unmeasured Latent Method Factor



## Appendix M

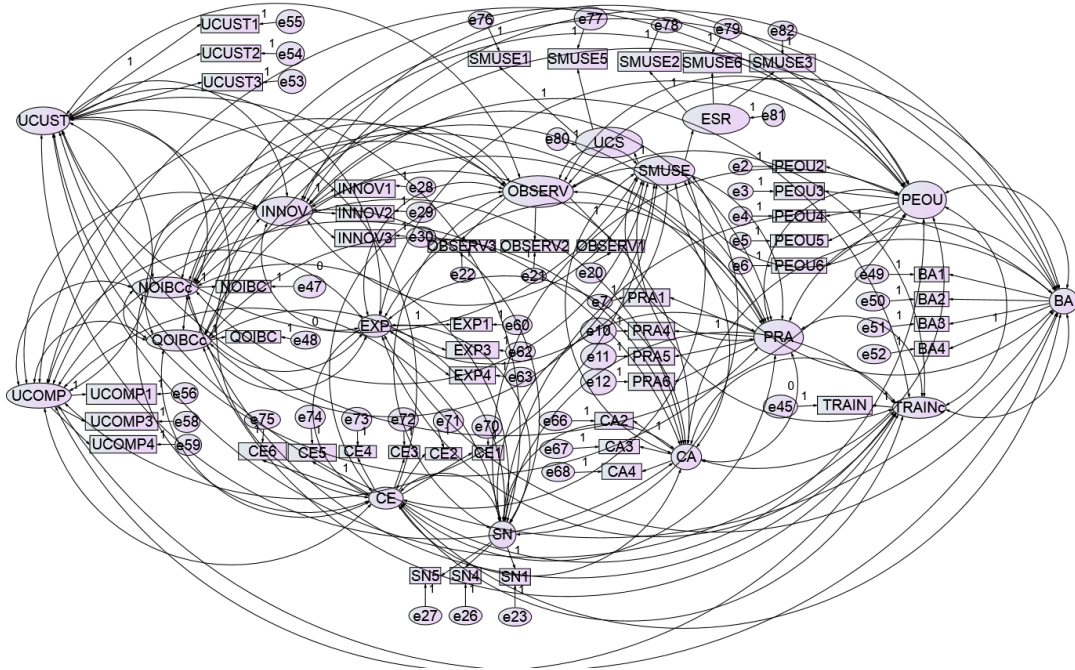
### Common Method Variance- Unmeasured Latent Method Factor Regression Weights

| Paths                      | Estimate | S.E  | C.R    | P   | Label |
|----------------------------|----------|------|--------|-----|-------|
| PEOU2 <--- Common_Factor   | .261     | .016 | 16.256 | *** | a     |
| PEOU1 <--- Common_Factor   | .261     | .016 | 16.256 | *** | a     |
| PEOU3 <--- Common_Factor   | .261     | .016 | 16.256 | *** | a     |
| PEOU4 <--- Common_Factor   | .261     | .016 | 16.256 | *** | a     |
| PEOU5 <--- Common_Factor   | .261     | .016 | 16.256 | *** | a     |
| PEOU6 <--- Common_Factor   | .261     | .016 | 16.256 | *** | a     |
| CA1 <--- Common_Factor     | .261     | .016 | 16.256 | *** | a     |
| CA2 <--- Common_Factor     | .261     | .016 | 16.256 | *** | a     |
| CA3 <--- Common_Factor     | .261     | .016 | 16.256 | *** | a     |
| CA4 <--- Common_Factor     | .261     | .016 | 16.256 | *** | a     |
| CA5 <--- Common_Factor     | .261     | .016 | 16.256 | *** | a     |
| BA1 <--- Common_Factor     | .261     | .016 | 16.256 | *** | a     |
| BA2 <--- Common_Factor     | .261     | .016 | 16.256 | *** | a     |
| BA3 <--- Common_Factor     | .261     | .016 | 16.256 | *** | a     |
| BA4 <--- Common_Factor     | .261     | .016 | 16.256 | *** | a     |
| TRAIN <--- Common_Factor   | .261     | .016 | 16.256 | *** | a     |
| PRA1 <--- Common_Factor    | .261     | .016 | 16.256 | *** | a     |
| PRA2 <--- Common_Factor    | .261     | .016 | 16.256 | *** | a     |
| PRA3 <--- Common_Factor    | .261     | .016 | 16.256 | *** | a     |
| PRA4 <--- Common_Factor    | .261     | .016 | 16.256 | *** | a     |
| PRA5 <--- Common_Factor    | .261     | .016 | 16.256 | *** | a     |
| PRA6 <--- Common_Factor    | .261     | .016 | 16.256 | *** | a     |
| PRA7 <--- Common_Factor    | .261     | .016 | 16.256 | *** | a     |
| OBSERV1 <--- Common_Factor | .261     | .016 | 16.256 | *** | a     |
| OBSERV2 <--- Common_Factor | .261     | .016 | 16.256 | *** | a     |
| OBSERV3 <--- Common_Factor | .261     | .016 | 16.256 | *** | a     |
| SN1 <--- Common_Factor     | .261     | .016 | 16.256 | *** | a     |
| SN2 <--- Common_Factor     | .261     | .016 | 16.256 | *** | a     |
| SN3 <--- Common_Factor     | .261     | .016 | 16.256 | *** | a     |
| SN4 <--- Common_Factor     | .261     | .016 | 16.256 | *** | a     |
| SN5 <--- Common_Factor     | .261     | .016 | 16.256 | *** | a     |
| INNOV1 <--- Common_Factor  | .261     | .016 | 16.256 | *** | a     |
| INNOV2 <--- Common_Factor  | .261     | .016 | 16.256 | *** | a     |
| INNOV3 <--- Common_Factor  | .261     | .016 | 16.256 | *** | a     |
| NOIBC <--- Common_Factor   | .261     | .016 | 16.256 | *** | a     |
| QOIBC <--- Common_Factor   | .261     | .016 | 16.256 | *** | a     |
| EP1 <--- Common_Factor     | .261     | .016 | 16.256 | *** | a     |
| EP3 <--- Common_Factor     | .261     | .016 | 16.256 | *** | a     |
| EP4 <--- Common_Factor     | .261     | .016 | 16.256 | *** | a     |

|         |                    |      |      |        |     |   |
|---------|--------------------|------|------|--------|-----|---|
| UC1     | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| UC2     | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| UC3     | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| UC4     | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| UCV1    | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| UCV2    | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| UCV3    | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| CE1     | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| CE2     | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| CE3     | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| CE4     | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| CE5     | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| CE6     | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| CE7     | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| CE8     | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| CE9     | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| CE10    | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| SMUSE1  | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| SMUSE2  | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| SMUSE3  | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| SMUSE4  | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| SMUSE5  | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| SMUSE6  | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| SMUSE7  | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| SMUSE8  | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| SMUSE9  | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| SMUSE10 | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| SMUSE11 | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |
| SMUSE12 | <--- Common_Factor | .261 | .016 | 16.256 | *** | a |

## Appendix N

### CFA for the Measurement Model



$(\chi^2/df=1.948, GFI=0.863, CFI=0.923, TLI=0.910, RMSEA=0.059)$



## Appendix O

### Measurement Model Standardized Regression Weights

| Paths               | Estimate | t-value   |
|---------------------|----------|-----------|
| UCS <--- SMU        | .602     | 8.043***  |
| ESR <--- SMU        | .838     |           |
| PEOU5 <--- PEOU     | .755     |           |
| PEOU4 <--- PEOU     | .734     | 12.172*** |
| PEOU3 <--- PEOU     | .782     | 13.041*** |
| PEOU2 <--- PEOU     | .784     | 13.065*** |
| OBSERV1 <--- OBSERV | .749     |           |
| OBSERV2 <--- OBSERV | .817     | 13.069*** |
| OBSERV3 <--- OBSERV | .880     | 13.526*** |
| SN4 <--- SN         | .678     | 9.170***  |
| SN5 <--- SN         | .751     | 9.837***  |
| BA4 <--- BA         | .884     |           |
| BA3 <--- BA         | .878     | 21.032*** |
| BA2 <--- BA         | .916     | 23.090*** |
| BA1 <--- BA         | .861     | 20.184*** |
| UCUST3 <--- UCUST   | .878     |           |
| UCUST2 <--- UCUST   | .887     | 21.052*** |
| UCUST1 <--- UCUST   | .870     | 20.213*** |
| UCOMP1 <--- UCOMP   | .809     |           |
| UCOMP3 <--- UCOMP   | .884     | 17.234*** |
| CA3 <--- CA         | .902     | 23.327*** |
| CA2 <--- CA         | .910     |           |
| CE6 <--- CE         | .852     | 17.414*** |
| CE5 <--- CE         | .828     |           |
| INNOV1 <--- INNOV   | .811     |           |
| INNOV2 <--- INNOV   | .730     | 12.886*** |
| INNOV3 <--- INNOV   | .897     | 15.876*** |
| PEOU6 <--- PEOU     | .788     | 13.151*** |
| PRA6 <--- PRA       | .830     | 17.224*** |
| PRA5 <--- PRA       | .880     | 19.011*** |
| PRA4 <--- PRA       | .849     |           |
| PRA1 <--- PRA       | .858     | 18.210*** |
| SN1 <--- SN         | .663     |           |
| UCOMP4 <--- UCOMP   | .843     | 16.164*** |
| EXP1 <--- EXP       | .931     |           |
| EXP3 <--- EXP       | .936     | 29.835*** |
| EXP4 <--- EXP       | .910     | 26.732*** |
| CA4 <--- CA         | .883     | 22.201*** |
| CE4 <--- CE         | .781     | 15.246*** |
| CE3 <--- CE         | .863     | 17.783*** |
| CE2 <--- CE         | .884     | 18.480*** |
| CE1 <--- CE         | .744     | 14.240*** |
| SMUSE1 <--- UCS     | .807     |           |
| SNUSE5 <--- UCS     | .724     | 9.015***  |
| SMUSE2 <--- ESR     | .729     |           |
| SMUSE6 <--- ESR     | .717     | 11.129*** |