SHOPPING ON SOCIAL NETWORKS: IS THIS THE STOREFRONT OF THE FUTURE?

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ABSTRACT

Consumers are moving towards social networking technologies as an alternative channel for shopping. This research extended the Technology Acceptance Model (TAM) to investigate the factors that predict Facebook users' behavioural intentions towards the adoption of Facebook shopping, as well as the moderating role of trust. A convenience sample of 384 South African Facebook users completed the online survey. Confirmatory factor analyses (CFA) and structural equation modelling (SEM) were used to test the hypotheses. The results revealed that perceived enjoyment and perceived usefulness were the most important predictors of shopping on Facebook, while privacy risk and social norms did not significantly influence intent to shop. Although the moderating role of trust could not be confirmed it seems as if consumers are more positive about shopping on Facebook than general online shopping. The implications offered will assist in the formulation of effective marketing strategies to drive the up-take of shopping on Facebook.

INTRODUCTION

Dennis et al. (2010) prediction that shoppers would welcome combining social networking with shopping, is becoming more and more a reality. This emerging phenomenon resulting from the interchange of social media and electronic commerce, is of global interest for marketers, business and researchers alike (Wang and Zang, 2012). Shopping on social networks presents an opportunity for users to complete transactions within the social network's environment, while it provides brands the opportunity to meet consumers in their space.

Driven by recent developments in Information and Communication, as well as the advent of Web 2.0 technologies, today's world is becoming increasingly characterised by technology-facilitated transactions (Akturan and Tezcan, 2012). The phenomenal growth of social technologies and platforms such as social networking sites (SNS) are major contributors to advancements in this area (Han and Windsor, 2011). Amongst SNS, Facebook is one of the most attractive for both users and marketers (Ferreira and Barbos, 2017). Increased SNS usage, particularly Facebook, is a case in point of the platform's importance, growth and the opportunities it offers to marketers and retailers (Aldas-Manzano et al., 2009; Liew et al., 2014). Social media is becoming more than just a source of information or a place where people can express their opinions and communicate with one another (Dimke and Fataniya, 2017). Consumers are moving towards SNS technologies as a new and alternative channel for shopping. In addition, e-commerce websites are often accessed via consumers' social media accounts and consumers often share their latest purchases via their social media account, as well as sharing the links to or tagging the brand pages of the e-commerce sites (Lodha, 2017). Social media are no longer just 'social' anymore as it is fast turning commercial too

(Luckerson, 2015; Tengah, 2016). Facebook is becoming more integrated into the everyday lives of consumers from various cultures (Khwaldeh, Al-Hadid and Alrowwad, 2017) and given today's 'sharing society', it has become a device not just for social networking but also for business networking (Farahwahida et al., 2013).

The emergence of Web 2.0 technologies has allowed electronic commerce (e-commerce) to evolve, presenting the Internet as a retail channel to organisation and, enabling users to shop online (Shin and Chen, 2013). However, in some developed countries e-commerce is actually diminishing (Lodha, 2017), while in developing countries (Ayegba et al., 2017; Fredericks, 2015; Hedley 2014) it is still struggling to take-off. As a result there seems to be a growing interest in mobile commerce (m-commerce) and social commerce (S-commerce) as sub-categories of e-commerce (Akturan and Tezcan, 2012; Han and Windsor, 2011; Shin and Chen, 2013).

S-commerce was established to enable customer engagement on e-commerce sites and to include interactive e-commerce tools that allow online shoppers to get advice from other users, find products and services, and purchase these products (Hsu et al., 2011). S-commerce and social shopping communities continue to grow in number and size (Stephen and Toubia, 2010). Bailey (2010) and Nutley (2010) predicted that s-commerce would be the next e-commerce wave, coming sooner than expected and that would be the new face of marketing (Marsden, 2010). The growth and functionality of s-commerce led to the forming of new concepts such as F-commerce (Facebook commerce), which is the use of Facebook to conduct s-commerce (Shin, 2013). Internationally, 2015 has seen some social networks such as Facebook, Twitter and Pinterest incorporating and testing 'buy buttons' on their platforms mainly for U.S. merchants (Luckerson, 2015; Hubbard, 2015; Kendall, 2015). However, technology enablement is not sufficient; without awareness of these shopping options and what will drive consumers to shop on these platforms, the up-take of s-commerce will struggle (Boorstin, 2015). Sceptics question the viability and adoption of s-commerce (Rad and Benyoecef, 2010). It seems that F-commerce did not take off even in developed countries as expected and strategies such as 'Facebook marketplace' and 'buy buttons' did not live up to expectations (Chaney, 2014; Kalinowski, 2016); this could be due to the fact that these platforms do not really understand what drives consumers' shopping behaviour.

Hence it is not clear whether marketers really understand consumer perceptions about s-commerce (Ho, 2010). There is a dearth of research pertaining to social network shopping in general and F-commerce in developed countries, with almost no research in emerging countries such as South Africa. The extant research has largely focused on the potential of SNS with little focus on what drives the willingness of shoppers to use these platforms for shopping and herein lies the unique contribution of the paper.

There is an increasing need for information about, theories and models of consumers' behaviour in the online context due to the growth of e-commerce (Close and Kukar-Kinney, 2010). This growing need to better understand online and social network purchasing behaviour (Herrero and San Martin, 2012) necessitates more research attention (Mosteller et al., 2014) on this field, especially providing a theoretical foundation (Busalim, Razak and Fadhil Yusof, 2017) to understand consumers' behaviour in s-commerce. Despite the widespread acceptance of online social networking tools for social interaction, their use for [social] commerce is not clear (Hajli et al., 2015; Salvatori and Marcant 2015). This is not surprising given the newness of s-commerce, so as a result there are only a few studies focused on this issue from a customer behaviour perspective (Rouibah and Al-qirim, 2017) and needs to be further explored to shed light on the factors that lead to its adoption (Rouibah and Al-qirim, 2017:124). According to a systematic review conducted on s-commerce studies by Baethge, Klier and Klier (2016), only 8% of studies focused specifically on s-commerce adoption.

SNS is the ideal platform to provide shopping options as these sites already have extensive, established user bases, which gives them access to millions of possible customers. Furthermore, the social interactive connectivity that drives the growth of social network sites, could be pivotal for shopping on these sites (Cha, 2009). In addition, Facebook is regarded as a global social media site (Araujo and Neijens, 2012; Kemp, 2015). As such, it can form a virtual multicultural marketplace where marketers and brands from different cultures compete with one another on both local and international levels (Demangeot et al., 2015). Facebook as the top social media platform drives more than 75% of mobile e-commerce activities (Smith, 2015) and accounts for half of all of social referrals (Social Commerce Report, 2015) and the latest statistics reveal that social media are becoming even more influential in all aspects of the purchasing journey with Facebook the front runner in social commerce, with its huge user base and wide-ranging demographics (Social Commerce Report, 2018).

However, it is important to take cognisance of the fact that shopping services are not the main business of SNS such as Facebook, so users may perceive their shopping services differently as opposed to shopping-sites such as Amazon. Introducing shopping services thus represents a category extension for SNS and warrants more research.

The emergence of SNS as a retail channel merits special attention from researchers to develop a model which enables organisations and marketers to capitalise on the growing trend of offering shopping services on SNS (Mallat, 2007). As a 'new technology for shopping' that users may or may not accept, theories related to new technology adoption reinforce literature related S-commerce. Not only are the Technology Acceptance Model (TAM) and Unified Theory of Acceptance and Use of Technology (UTAUT) extensively used in the area of human-computer interaction (Venkatesh et al., 2003), but are also extended to users' acceptance of e-commerce (Salisbury et al., 2001; Suh and Han, 2003).

Convenience, social interaction and enjoyment emerge as important aspect in shopping experiences (Javenpaa and Todd, 1997), so as a result these constructs will be added to our investigation reflecting the positive antecedents of Facebook shopping. However, to ensure a balanced view in-line with the security and transactional risk involved in online shopping and growing interest in privacy concerns, risk will also be investigated. This study aims to contribute to the limited s-commerce literature by using an extended Technology Acceptance Model (TAM) through structural equation modelling (SEM) to investigate the potential of Facebook as a shopping site within a developing economy, such as South Africa. As shopping on Facebook is not yet a reality in some developing countries such as South-Africa, this study attempts to determine South African Facebook users' willingness to incorporate social shopping behaviour activities in their SNS usage and the factors that would influence their willingness to participate in Facebook shopping.

The findings indicate that shopping on SNS, and more specifically F-commerce, is a viable option for marketers and organisations to capitalise on. As a result, the findings are of value to both industry and academia. The paper makes theoretical as well as a practical contributions. From a theoretical standpoint the study proposes a model to identify the antecedent of a user's intention to engage with F-commerce. The proposed model represents an extension of previous technology acceptance research because it integrates both the utilitarian and hedonic value associated with a shopping activity, while taking cognisance of the risks often associated with online-transaction and adding constructs related to the social interaction process underpinning social networking sites. From a practical viewpoint, the findings provide a better understanding of the factors that influence willingness to engage in Facebook shopping. This will assist marketers in selecting more effective strategies to attract s-commerce users but more specifically to exploit F-commerce to its full potential as an alternative retail outlet, to the benefit of users as well as industry. S-commerce could provide

an alternative retail option in developing countries such as South Africa where the general uptake of e-commerce is lagging, yet consumers are comfortable engaging with social media [as is evident in the high penetration of social media and, especially, Facebook with an estimated 16 million South African Facebook users and most major South African brands using Facebook, Goldstuck, 2018] and a highly developed telecommunication network is available to facilitates such transactions. Thus F-commerce may be a viable retail opportunity providing retailers and marketers with an alternative avenue of e-commerce, which would be more prone to uptake instead of the traditional e-commerce alternative.

Although the adoption of new technologies, as well as social networking in general are well studied, Shin (2013) and Busalim et al. (2017) argue that new theoretical developments are needed to explain the specific characteristic of S-commerce and users' interactions, as such this paper contributes by adding to the theoretical development and providing specific insights. The paper also contributes to the dearth of research, as S-commerce studies based in countries outside the northern hemisphere are limited (Walters, 2001), as are studies in emerging markets (Fastoso and Whitelock, 2011; Lages et al., 2015). Greenland and Kwansah-Aidoo (2012) argue that international academic journals still neglect market research in emerging markets, especially in less developed countries of Sub-Saharan Africa.

This paper addresses Facebook shopping as an alternative retail option, connecting the social and e-commerce realms. The focus of this paper is to enhance the understanding of social commerce in a developing country context and to contribute to understanding consumer behaviour in social commerce.

LITERATURE REVIEW

S-commerce is a subset of e-commerce, which utilises social networking tools (Al-Dwairi, 2017) and can be viewed as the combination of a firms' offerings and the engagement of shoppers with content - with buyers and sellers are connected in an online social networking site (SNS). Three components of s-commerce are thus evident: social media, community and commerce activities (Liang et al., 2011). SNS-based commerce is one application of s-commerce, of which the most popular is Facebook that applies a commerce adoption to their application, referred to as Facebook commerce (f-commerce). Facebook commerce refers to a range of activities such as searching for information, reviews, comments, as well as the buying and selling of goods and services (Farahwhida, Norsila, Mohd and Latifah, 2013; Sura and Ahn, 2017). For the purpose of this study, shopping on Facebook was investigated solely as a shopping activity and not for referrals, information search, reviews or directing users to a firm's website to complete the transaction.

Although shopping on social networks is still new technology, some companies such as Malaysian airlines provide customers with the opportunity to complete an entire purchase without having to leave Facebook (Harris and Dennis, 2011). Shopping on social networks presents an opportunity for users to complete transactions within the social network's environment. This would present itself as a new form of technology which warrants investigation utilising technology acceptance theories. Given the wide application of the Technology Acceptance Model (TAM) (Davis et al. 1992) and previous applications to investigate consumers' online shopping decisions (Shang, Chen and Shen, 2005), it is expected that TAM will also applicable in s-commerce (Del Bosque and Crespo, 2011; Shin and Chen, 2013). TAM suggests that when individuals encounter a new technology, various technological factors (Khalifa and Ning Shen, 2008) influence their decision about how and when they will use it. The formation of intentions to engage with F-commerce can be conceptualised by means of an extended Technology Acceptance Model (TAM).

TAM thus serves as the theoretical underpinning on which the proposed hypotheses in this study are based. We attempt to extend the TAM model with the introduction of additional constructs to better reflect the unique S-commerce context that is both technology-based as well as user-driven and the different values (hedonic and utilitarian) consumers rely on when making shopping decisions. According to Babin and Darden (1995) and Teo (2001), hedonic value is associated with the emotional, fantasy feeling opposed to utilitarian value that is more focused on the convenience and timesaving aspects of shopping.

TAM theorises that perceived usefulness and perceived ease of use are the leading factors that influence users' behavioural intention to adopt new technology such as S-commerce (Guo, 2010; Dennis et al., 2010). However, several studies (Juniwati 2014; Khalifa and Ning Shen, 2008; Lee et al., 2011; Shin 2013) found that ease of use did not impact significantly as anticipated on behavioural intent. It could be argued that as consumers become more experienced with using a technology, the influence of ease of use diminishes. As users gain experience, perceived ease of use is expected to reflect the distinct attributes of enjoyment as it relates to the user-system interface (Venkatesh, 2000). Venkatesh and Davis (2000) conceptualise enjoyment as an antecedent of ease of use, whose effect increases over time as users gain more experience with the system. The enjoyment is thus two-fold – enjoyment derived from the shopping experience, as well as from using the technology. Moreover, S-commerce is a relatively simple system to use as consumers are already familiar with Facebook thus it could be argued that the ease of use has already been established. Lastly, Shin (2013:55) argues that the effect of enjoyment has been largely overlooked in the S-commerce context. Following the argument of Shin and the notion of previous studies that have often used perceived enjoyment as a substitute for ease of use (Shin, 2013; Shin and Kim 2008; Van der Heijden, 2004) in a shopping context, the latter approach was followed.

E-commerce studies (Gefen and Straub, 2004) and s-commerce studies (Al-Dwairi, 2017), however, confirm the influence of perceived usefulness on user behavioural intent. For the purpose of this study perceived usefulness is defined as Facebook users' belief that shopping on Facebook will enhance the outcome of their shopping activity. Usefulness is thus included as a construct in our conceptual model and representative of convenience and the utilitarian value of shopping. Based on the confirmed findings that perceived usefulness is found to be the primary belief affecting intentions (Davis et al., 1992; Gefen and Straub, 2004; Venkatesh and Davis, 2000) it is therefore, hypothesised that:

H_1: Perceived usefulness is positively associated with intentions to shopping on Facebook.

While usefulness provides utilitarian shopping value, enjoyment is more representative of the hedonic value associated with a shopping activity. Although enjoyment has received extensive focus in e-commerce adoption studies, it is lacking from s-commerce studies (Rouibah and Al-qirim, 2017). Although not all consumers enjoy shopping, previous research has shown that the majority of consumers do indeed enjoy the shopping activity (Chui et al,. 2009; Marsden, 2010), so enjoyment is an important aspect of shopping experiences (Javenpaa and Todd, 1997). For the purpose of this study enjoyment refers to the extent to which the Facebook shopping activity is perceived to be enjoyable in its own right, apart from the consequences that may be anticipated. The interactivity of SNS contributes to a user's experience in and enjoyment of S-commerce, where users are enabled to "like" a particular piece of information, share photos and videos or review a product or service. Users will experience enjoyment when they are satisfied with the system performance of s-commerce (Huang and Benyoucef, 2013). Users who experience enjoyment from -commerce are also more likely to adopt the system in future (Chong, 2013). Previous research (Teo, 2001) also found that perceived enjoyment has

a positive influence on the adoption of a particular system. Based on the aforementioned and given that previous studies have used perceived enjoyment as a substitute for ease of use (Shin and Kim 2008; Van der Heijden 2004), we hypothesised that:

H_2: Perceived enjoyment is positively associated with intentions to shop on Facebook.

Given the risk involved in on-line shopping (Cheung and Lee, 2006; Pires, Stanton and Eckford, 2004), it is important not only to reflect positive antecedents (usefulness and enjoyment) of Facebook shopping but also the perceived risks associated with F-commerce. Interest in privacy has been prompted by the rapid development and use of digital technologies and social media. Furthermore, it has been found that on-line purchasing intent is mainly influenced by concerns about security and privacy risks (Ranganathan and Ganapathy, 2002; Suh and Han, 2003). Dinev and Hart (2005) also reported that privacy concerns influenced users'sdecisions to engage in e-commerce transactions while others posit that perceived risk restricts the development of e-commerce (Culnan and Armstrong, 1999; Reichheld and Schefter, 2000). Perceived risk associated with s-commerce is high (Gupta and Kim, 2010) due to the multi-dimensionality of risk associated with such platforms. Users are not only exposed to the risk associated with e-commerce transactions but also the additional risk of being exposed to the social network platform on which the transaction take place. It is therefore hypothesised that:

H_3: Perceived privacy risk is negatively associated with intentions to shopping on Facebook.
H_4: Perceived security risk is negatively associated with intentions to shopping on Facebook.

Olusoji et al. (2015), report that the presence of perceived risk negatively affects trust in online shopping. In today's online environment where social interactions on the Internet shape new forms of interconnectivity and relationships between users, the study of trust might be influenced by the SNS on which users interact. Previous research (Ellison et al., 2007; Ingham et al., 2015) suggests that users' trust is generated from social interactions and significantly influence their behavioural intention to engage in potential business activities on SNS. The more trust a user has, the more likely the user is to engage in S-commerce (Han and Windsor, 2011). Developing trust will help consumers overcome perceptions of risk and insecurity (Hong and Cha 2013; McKnight et al., 2002). Hong and Cha (2013) confirmed through their study that the relationship between perceived privacy and security risk and purchase intention are influenced by trust. Pappas argues that in spite of the fast increase in online shopping, the literature is silent on the relationships between perceived risk factors and web-vendor consumer trust (Pappas, 2016). Very few papers have investigated customer trust in s-commerce (Akman and Mishra, 2017; Rouibah and Al-qirim, 2017). Motivated by the need to better understand consumers' adoption of F-commerce, we will explore the moderating effect of trust in the SNS on risk and intention to shop on Facebook, so it is hypothesised that:

H_5: Trust moderates the effect of privacy risk on intent to shop on Facebook.
H_6: Trust moderates the effect of security risk on intent to shop on Facebook.

Lee et al. (2011) argue that social factors need to be incorporated in the study of online shopping behaviour. They found that social influences affect a consumer's decision to shop online. Consumer theories have always acknowledged the influence that friends and peer groups have on consumer decision-making (Lee et al., 2011). Facebook users and prospective S-commerce shoppers can easily access large volumes of information and advice from those who have recent experience with it. As the role of social influence in the technology acceptance decision still

remains unclear, Venkatesh et al. (2003) proposed an extension of TAM, referred to as UTAUT, that includes social influence as reflected by social or subjective norms. According to the Theory of Reasoned Action (TRA), an individual's performance of a specified behaviour depends on behavioural intention, where behavioural intention is determined by, amongst others, subjective or social norms of the individual (Ajzen and Fishbein, 1980; Kim et al., 2007; Mohammed, 2014). As subjective and social norms are used interchangeably in literature, the terms social norm would be used to reflect the social nature of SNS. Facebook users may initially be cautious about adopting F-commerce and might show a strong tendency to rely on significant others' opinions in making the decision to adopt (Liang et al., 2011). Prior studies (Ajzen, 1981; Venkatesh et al., 2003) have shown that social norms have a positive effect on behavioural intent. Social norms could be defined as "the degree to which an individual perceives that important others believe he or she should use the new systems" (Venkatesh et al., 2003:451). On the contrary, Ingham et al. (2015), in summarizing online commerce studies, found several studies presenting contrasting findings as to social norm's influence on behavioural intention. Venkatesh et al. (2003) argue that social norms will only be significant in mandatory contexts where the user is required to use the system and report a weak positive relationship between social norms and behavioural intent. Likewise, Van Raaij and Schepers (2008), Lee and Kim (2009) and Anderson et al. (2006) reported no significant influence between social norms and behavioural intent. The mixed results may be due to the underlying technology or context (mandatory vs. voluntary). We argue that more research on the influence of social norms in a S-commerce context is needed in order to account for the mixed relationships in literature; hence we hypothesise that:

H7: Social norms are positively associated with intentions to shop on Facebook.

Venkatesh et al. (2003) proposed extension of TAM to include social influence were, unfortunately only limited to the construct, social or subjective norms. However, owing to the social interactive nature of social media it is critical to include other types of social influence as well, such as social support. Perceived social support has been studied mainly in the area of social psychology (Zimet et al., 1990) and can be defined as 'an individual's perceptions of general or specific supportive behaviours (advice, assistance, help) from people in their social network' (Demaray and Malecki, 2002:215). This 'support' may enhance the outcomes of their decisions or protect consumers from negative purchase consequences. Following current trends to apply social support in S-commerce (Ho, 2010; Shin, 2013), social support was also included in the model. Previous research findings confirmed that social support positively influences users' behaviour in a S-commerce context such as blogs (Ho, 2010; Al-Dwairi, 2017) and S-commerce in general (Shin, 2013). Given the potential risk involved in online shopping (Cheung and Lee, 2006) and the social nature of SNS, we believe that prospective Facebook shoppers will ask for and depend on advice, help and opinions from their Facebook friends when shopping on Facebook. We argue that social commerce depends on social support provided in an ICT environment and that the more social support users receive, the more likely the user is to partake in s-commerce on the network. Therefore it is hypothesised that:

H8: Social support is positively associated with intentions to shop on Facebook.

In the context of s-commerce, behaviour intention (BI) refers to the likelihood that a Facebook user intends using Facebook as a shopping platform. Intention to shop on Facebook (BI) is treated as the dependent variable in our study, since understanding intent is imperative in predicting behaviour (Lee et al., 2011), and as such, Facebook users' intention to engage in s-

commerce on Facebook is an important factor in predicting their s-commerce behaviour on Facebook. Additionally, as the shopping option on Facebook is not currently available in South Africa, actual behaviour could not be measured.

The following diagram is a graphical presentation of the proposed construct relationships based on the extended TAM model discussed.

Figure 1: Proposed construct relationships
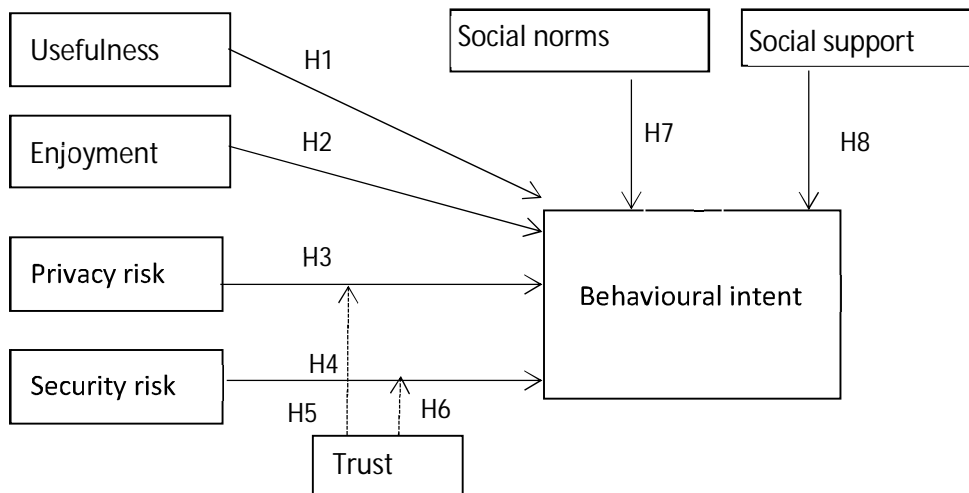
METHODOLOGY

Adult (18 years and older) South African Facebook users were conveniently sampled via a consumer panel in an online environment and a sample size of 384 was realised. Informed consent was obtained and the panel members were incentivised according to the normal practices of the panel host. The self-administered questionnaire was pre-tested and utilised existing scales from previous TAM studies and existing literature in the field of e-commerce, m-commerce and s-commerce, adapted to reflect the Facebook shopping context.

For the purpose of this study, shopping on Facebook was investigated as a shopping activity and not referrals, reviews or directing users to a firms' website to complete the transaction. It was therefore clearly defined for respondents as 'completing a shopping transaction within Facebook, without being diverted to an external e-commerce site' (as mentioned earlier this is not yet a reality in South Africa).

Seven-point Likert scales with scale points ranging from 1 (strongly disagree) to 7 (strongly agree) were used to measure each construct. Scales to measure perceived usefulness (3 items, e.g. Shopping services on Facebook will make me more efficient) and perceived enjoyment (4 items, e.g. Shopping on Facebook will be enjoyable) were adapted from Cha (2009), while trust in Facebook (3 items, e.g. Facebook is a reliable social network.) and behavioural intent (3 items, e.g. I would shop on Facebook) were adapted from Shin (2013). The social aspects were measured with 3-items for social support (e.g. When shopping on Facebook, I think that my Facebook friends would help me to make a purchase decision) (Shin, 2013; Zimet et al., 1990) and the 4 items used to measure social norm (e.g. I would shop on Facebook because my friends will possibly shop on Facebook) was adapted from Shin (2013). Perceived risk as evident in security risk (3 items, e.g. I will not be worried about the security of online shopping on Facebook) and privacy risk (3 items, e.g. Facebook will protect my privacy), were adapted from Akturan and Tezcan (2012) and Cha (2009). Important to note is

that the risks questions were positively framed. The wording of the scales were adapted to reflect the Facebook context of the study. The questionnaire also included demographical information, as well as Facebook usage and general on-line shopping behaviour. Screening questions were used to ensure that all participants were active (logged into Facebook at least once a month), adult Facebook users.

Confirmatory factor analysis (CFA) and structural equation modelling (SEM) were used to test the set hypotheses.

RESULTS

Sample profile

The sample reflected almost an equal split between males (57%) and females (43%). The average age of the sample was 31 years with the majority of the sample aged between 18-30 years (53%), 31-45 years represented 37% of the sample and the remaining 10% was 46 years and older. There was an equal split between respondents with some type of schooling (50.4%) and respondents with a tertiary education (e.g. diploma, degree).

The sample reflected experienced, connected Facebook users, as almost 48% had been using Facebook for 3-6 years while the remaining 52% were active on Facebook for more than six years, with an average of 316 Facebook friends. The majority (60%) of the sample can be classified as medium to heavy Facebook users spending at least 3 hours per week on Facebook and accessing Facebook at least 8 times during a week. In contrast, but reflective of the slow uptake of e-commerce in South Africa, almost 40% of the sample do not engage with traditional online shopping, while 33% indicated that they use it from time-to-time and only 27% use it on a regular basis. Smartphones (43%), followed by laptops (26%), tablets (16%) and desktops (15%) were the devices of choice used for online shopping in general.

Reliability and Validity

A confirmatory factor analysis (CFA) was performed using AMOS 22 to assess the reliability as well as convergent and discriminate validity of the multi-item constructs (Anderson and Gerbing, 1988). The results of this analysis are shown in Tables 1- 3.

The Chi-square $(X^2=396.664$, $df=209$, p=0.000) was significant; however, this result may be sensitive to sample size and model complexities. Therefore, the Goodness-of-fit index (GFI), Tucker-Lewis index (TLI), Comparative-fit index (CFI) and Root Means Square Error of Approximation (RMSEA) were used to determine model fit (Bagozzi and Yi, 1988). It is evident from Table 1 that a good model fit was achieved as the X^2/df was less than three and the GFI, TLI and CFI were above 0.9, while the RMSEA value was well below the generally accepted cut-off value of 0.08.

Table 1: CFA fit statistics

Fit statistic	Rule of thumb	Results
X^2/df	< 3	1.898
CFI	>0.9	0.970
TLI	>0.9	0.970
GFI	>0.9	0.910
RMSEA	<0.08	0.051

Convergent validity was considered based on factor loadings, variance extracted and reliability as shown in Table 2. The following criteria were applied: factor loadings should be statistically significant and above 0.5, the average extracted variance (AVE) must he higher that 0.5 and

construct reliability (Cronbach alpha and Composite Reliability (CR)) should be 0.7 or higher (Hair et al., 2006).

Table 2: Convergent validity and reliability

	*Factor loadings	Cronbach Alpha	CR	AVE
Enjoyment	0.912			
	0.913			
	0.949			
	0.876	0.952	0.952	0.833
Behavioural intent	0.920			
	0.891			
	0.906	0.932	0.932	0.820
Social support	0.886			
	0.854			
	0.826	0.890	0.891	0.732
Privacy risk	0.707			
	0.964			
	0.933	0.897	0.906	0.767
Security risk	0.908			
	0.961			
	0.682	0.879	0.892	0.738
Social norm	0.827			
	0.624			
	0.913	0.894	0.899	0.696
Usefulness	0.936			
	0.944			
	0.912	0.945	0.946	0.853

*All factor loadings significant at the level 0.001

From Table 2 it is evident that all factor loading was above 0.5 and significant while the AVEs for all constructs were above 0.5, not only indicating that an acceptable amount of variance is explained by each factor (Fornell and Larcker, 1981), but also convergence in measurement. Furthermore, all the Cronbach's alpha values and Composite reliability values were above 0.7, indicating reliability (Bagozzi and Yi, 1988).

To ensure discriminant validity the square root of the AVE of two factors should be higher than the correlation between the two factors (Fornell and Larcker, 1981). The results pertaining to discriminant validity are presented in the correlation matrix in Table 3 below.

Table 3: Results of discriminant validity

	Enjoyment	Intent	Social support	Privacy risk	Security risk	Social norms	Use-fulness
Enjoyment	**0.912**						
Intent	0.874	**0.905**					
Social support	0.650	0.734	**0.855**				
Privacy risk	0.517	0.555	0.672	**0.875**			
Security risk	0.565	0.649	0.629	0.734	**0.859**		
Social norms	0.604	0.675	0.675	0.397	0.426	**0.834**	
Usefulness	0.857	.0874	0.676	0.501	0.520	0.678	**0.923**

It is evident from Table 3 that the diagonal values exceed the inter-construct correlations, thereby confirming discriminant validity. All the constructs used in the measurement model

proved to be reliable and valid in a South African Facebook context. Given that the measurement model provided satisfactory results, the next step was to run the structural model.

Testing the structural model and hypotheses

To test the structural model, SEM with maximum likelihood was performed. The results of the goodness-of-fit of the structural model (X^2=540.183, *df* = 215, p=0.000) are reported in Table 4 and indicate acceptable model fit.

Table 4: Structural model fit indices

Fit indices	Value
X^2/df	2.512
GFI	0.888
CFI	0.961
TLI	0.954
RMSEA	0.066

From Table 4 we can conclude that the structural model fits the data satisfactory. Therefore, the structural model can be used with confidence to draw conclusion on the research hypotheses.

Table 5: Hypotheses results

	Hypotheses path	SRW	*p*-value	Hypothesis conclusions
H1	Usefulness → shopping intent	.391	0.000	Perceived usefulness has a significant effect on intention to shop on Facebook
H2	Enjoyment→ shopping intent	.402	0.000	Perceived enjoyment has a significant effect on intention to shop on Facebook
H3	Privacy risk→ shopping intent	-.076	0.123	There is no significant relationship between perceived privacy risk and intention to shop on Facebook
H4	Security risk → shopping intent	.223	0.000	Perceived security risk has a significant effect on intention to shop on Facebook
H7	Social norms→shopping intent	.069	0.139	There is no significant effect between social norms and intention to shop on Facebook
H8	Social support→ shopping intent	.131	0.013	Perceived social support has a significant effect on intention to shop on Facebook

It is evident that four of the six relationships were confirmed and perceived usefulness, enjoyment, security and social support significantly influence intention to shop on Facebook. Perceived enjoyment and perceived usefulness are the strongest predictors of shopping on Facebook and the model explains 84% (R^2=0.84) of variance in shopping intention.

Contrary to our expectations but in-line with the findings of Liébana-Cabanillas et al., (2014), security risk had a significant but weak effect (β=0.224, p<0.05) while privacy risk did not significantly influence users' intent to shop on Facebook. This situation could be explained by the profile of the respondents (Akman and Mishra, 2010), that is, younger respondents with an average age of 31. Age is often a risk inhibitor in the adoption of technologies, meaning that

younger users have fewer problems in the adoption of the new technology (Phang et al., 2006), as well as the fact that respondents indicated that they perceive Facebook as a trusted platform (M=5.14; SD=1.342) and are neutral about the possibility of security risk (M=3.92; SD=1.477) on Facebook.

Moderating effect of trust

To investigate whether trust moderates the relationship between the risk (privacy and security) and intention to shop on Facebook, the moderation analysis was carried out using the Hayes and Preacher (2010) SPSS process macro.

Table 6: Moderation model (privacy risk, trust and behavioural intent)

	Path Coefficients	SE	*t*-values	*p*-value
Constant	-.8173	.2425	-3.3700	0.001
Trust	.0204	.0805	.2529	0.801
Privacy risk	-.0691	.0555	-.1.2447	0.214
Interaction effect	.0073	.0177	.4109	0.681
Usefulness	.3169	.0656	4.8301	0.000
Enjoyment	.4136	.0669	6.1861	0.000
Social support	.1470	.0433	3.3980	0.000
Security risk	.1946	.0458	4.2523	0.000
Social norms	.0767	.0400	1.9185	0.056

The moderation model in Table 6 indicates three independent variables (privacy risk, trust, and the interacting variable), five control variables (usefulness, enjoyment, social support, security risk and social norms), and one dependent variable, which is behavioural [Facebook shopping] intent. According to the results of Table 6, the interaction effect (0.0073) of privacy risk and trust on behavioural intent is non-significant (p=0.801). It can thus be concluded that trust does not moderate the relationship between privacy risk and intention to shop on Facebook and H_6 is thus not supported.

Table 7: Moderation model (security risk, trust and behavioural intent)

	Path coefficients	SE	*t*-values	*p*-value
Constant	.2946	.3507	.8399	0.402
Trust	.0130	.0815	.1591	0.874
Security	.1961	.0459	4.2702	0.000
Interaction effect	-.0006	.0184	-.0329	0.974
Usefulness	.3156	.0651	4.8444	0.000
Enjoyment	.4136	.0669	6.1844	0.000
Social support	.1495	.0432	3.4649	0.001
Social norms	.0771	.0399	1.9325	0.054
Privacy	-.0708	.0556	-1.2742	0.204

From the results in Table 7, it is evident that the interaction effect (-.0006) of security risk and trust on behavioural intent is non-significant (p-value= 0.974). Trust does not moderate the

relationship between security risk and behavioural intent and as a result H₇ is not supported. It is clear that trust does not affect the relationship between risk and intention to shop on Facebook as anticipated.

DISCUSSION AND MANAGERIAL IMPLICATIONS

The paper explores F-commerce in the context of a developing country by identifying the main factors that influence intention to shop on Facebook, through an extended TAM model to that include perceived risk, enjoyment, trust and social aspects.

Expanding the TAM in an attempt to identify predictors of behavioural intention towards shopping on social networks such as Facebook, the study added constructs pertaining to the user's perceptions of risk (privacy and security), enjoyment, trust as well as reflecting the social nature (social norms and support) of SNS. In determining which factors would influence South Africans to shop on Facebook, perceived enjoyment, security risk, social support, as well as perceived usefulness are shown to be significant predictors. Findings confirm usability as one of the most important factors (Hasbullah et al., 2016; Hubert et al., 2017) as well as the significant influence of social support (Esmaili et al., 2011) on behavioural intent. Interestingly, enjoyment followed by usefulness were the two strongest predictors while the relationship between security risk and behavioural intent, as well as privacy risk and behavioural intent do not significantly change according to the level of trust as anticipated.

Trust proves to be a complex and abstract concept. Ingham et al. (2015) compared various studies and conclude that there are many inconsistencies in the relationship between trust and TAM beliefs. In producing evidence that trust does not moderate the relationship between risk and behavioural intention, the findings support the argument that relate to trust being influenced by the particular SNS being used. Trust as suggested by Han and Windsor (2011) generated through social activities on Facebook can be transferred into trust in transactional or shopping services offered by the same social network. The fact that privacy risk is not a significant predictor of Facebook shopping intention could be attributed to the argument of Hong and Cha (2013) that perceived risk reveals different levels of impact depending on the type of online commerce the user engages with. It may also be that as experienced Facebook users the respondents already have high trust levels and low risk levels and have already decided that the benefits of using social media outweigh the risks. It seems that although social networks are private and therefore direct access by brands inserting shopping options could have a negative effect on users, this will not influence the adoption of shopping on these sites. However, this needs to be monitored to see whether there are any changes in privacy concerns if Facebook shopping becomes a reality and more and more users utilise the platform as a retail outlet.

Similar to contrasting findings related to trust, this study does not support findings presented by Mohammed (2014), Hasbullaha et al. (2016) and Venkatesh et al. (2003) which report that social norm has a significant role in determining intention. However, the non-significant findings are in-line with Van Raaij and Schepers (2008), Lee and Kim (2009), as well as Anderson et al., (2006) and Al Khasawneh and Irshaidat (2017) that also reported non-significant results. Ingham et al. (2015) found online commerce studies presented contrasting findings as to social norm's influence on behavioural intention. This contradiction could be contributed to the argument of Vekatesh et al. (2003) that social norms will only be significant in mandatory contexts where the user is required to use the system, as such F-commerce is a voluntary system.

Contrary to social norms, social support does significantly predict intent to shop on Facebook. It seems that instead of conforming to norms set by peers, prospective Facebook

shoppers would rather ask for advice or solicit help and use the opinions from their extensive collection of Facebook friends when shopping on Facebook. For marketers this poses an opportunity to make use of Facebook friends as 'shopping pals' to enhance the shopping experience. Shopping is a social behaviour and as a result frequently performed with a companion, generally a family member or a friend, known as a shopping pal (Borges et al., 2010). Previous research conducted in a traditional offline shopping context found that a 'shopping pal' not only enhances the shopping experience but also creates a more hedonically oriented shopping experience (Guido, 2006), offers guidance (Prus, 1993; Tsai, 2003) and encourages social interaction with others (Goby, 2006). Furthermore, a shopping companion reduces risk and insecurity associated with a purchase decision (Baker and Haytko, 2004). Social support from Facebook friends will be the online version of a shopping pal and could result in similar benefits as in an offline context. Providing ample opportunity to post comments, ask for help with a please assist emoji or help or advice button(s) could be some of the strategies to harness the power of Facebook friends. Sethna et al., (2017) found that user-generated content such as online comments and opinions influence other users' purchase intentions to engage in online-shopping and one can thus expect that this would be especially relevant in F-commerce.

Enjoyment is the key to encourage Facebook users to engage with F-commerce but must not hamper the more utilitarian values. If F-commerce is designed in such a way as to ensure value added search mechanisms and presents a positively challenging experience, it can lead to increased users' shopping enjoyment.

Attributes of convenience long important to consumers are now found in new forms in on-line shopping (Wolfinbarger and Gilly, 2001). In particular, F-commerce is the ultimate time saving, effort saving and accessible shopping option. In addition to increased access, the overall shopping effort is less because Facebook users are already familiar and active on the platform. SNS and brands need to ensure a comfortable and personalized shopping experience, so by giving Facebook users control and freedom to shop when and how they want, ensures accessibility and convenience (usefulness). By providing an experiential shopping platform it will ensure that users are entertained, have fun and are immersed in the store platform. F-commerce should not try to mirror the offline marketplace but rather play to its unique capabilities, such as information richness, convenience, social interaction and moreover, the ability to provide a personalised, interactive experiential shopping experience. As consumers often engage in goal-orientated behaviour online, experiential benefits need to be offered without interfering with goal-directed tasks (Wolfinbarger and Gilly, 2001). For instance, interactive features allow users to view a product from every angle, offering utilitarian value (information), while providing hedonic value through surprise and novelty.

However, caution should be exercised as SNS, such as Facebook, are all about content and social connection, it is important to insert the shopping experience naturally into a user's feeds otherwise they might view it as an unwelcome invasion.

It is positive to note that although respondents are reluctant in general to shop online (M=2.08; SD=1.192), it seems as if they are more open to the possibility to engage with F-commerce (M=4.18; SD=1.681), possibly due to the ease and reduced risk due to the familiarity with Facebook and because of a social network recommendation and support.

Overall, the research findings partially support an extended TAM model and further suggest that shopping on Facebook is a behaviour South Africans are willing to incorporate in their social network sites and online activities.

We argue that as SNS is becoming ever more prevalent, there is a future for Facebook shopping. For shopping on Facebook to really take off as a retail option, awareness should be created and uptake encouraged through ensuring an enjoyable, fun, pleasant experience that

adds value to users ensuring a convenient, efficient, safe and easy shopping option. Furthermore, recommendations and support from shopping pals as evident in Facebook friends and trail appropriate systems should help SNS, such as Facebook, to become the storefronts of the future.

CONCLUSION

To sum up, we consider s-commerce as central for e-commerce activities and defined a behavioural model to verify the intention to shop on Facebook; the results suggest that social networks could indeed be the storefront of the future.

In the pursuit of capitalising on the growing trend of offering shopping services on SNS, this study contributes to extant literature in furthering the exploration and improvement of theory development in this field. From a theoretical point of view, this research has served to broaden the understanding of the factors influencing SNS shopping adoption, specifically in a developing economy's context such as in South Africa. From a managerial point of view, the study produces valuable acumens pertaining to effective marketing strategies to enhance the likelihood of online social shopping adoption.

The technology advances of recent years have modified the way consumers can shop and provide new retail options for firms to utilise. With the emergence of social commerce, the technology and socialisation aspects of shopping have come together, strengthening the user's presence on the network. In addition, the massive penetration of mobile phones that is in turn used to access SNS makes social commerce an even more attractive option.

As commerce increasingly draws the attention of the academic world it is evident that shopping on Facebook is a growing phenomenon which warrants more analysis. Despite the practical and theoretical contribution, this paper is subject to limitations related to the convenience sample and a hypothetical Facebook shopping scenario, as this kind of service was not offered in in South Africa in 2017 when the fieldwork commenced. Although 84% of variance in shopping intent was explained, the study took a constraint approach in testing limited dimensions as reflected in the extension of the TAM model: other factors not included in this paper could still explain the remaining 16% of variance. The fact that this subject field is moving so fast that research quickly becomes historical rather than forward looking makes it important to refine and further validate the constructs investigated in this paper with a sense of urgency. Shopping on social networks is a prominent new frontier where social networks, buyers and sellers actively explore the viability of such services.

REFERENCES

Ajzen, I. (1991) 'The theory of planned behaviour', *Organizational Behaviour and Human Decision Processes*, Vol. 50 No. 2, pp. 179-211.

Ajzen, I. and Fishbein, M. (1980) *Understanding Attitudes and Predicting Social Behaviour*, Englewood Cliffs, New Jersey: Prentice-Hall.

Akman, I. and Mishra, A. (2010) 'Gender, age and income differences in internet usage among employees in organizations', *Computers in Human Behaviour*, Vol. 26, pp. 482-490.

Akman, I. and Mishra, A. (2017) 'Factors influencing consumer intention in social commerce adoption'. *Information Technology and People*, Vol, 30 No. 2. [online] doi: 10.1108/ITP-01-2016-0006 (Accessed 21 January 2018).

Akturan, U. and Tezcan, N. (2012) 'Mobile banking adoption of the youth market: perceptions and intentions', *Marketing Intelligence and Planning*, Vol. 30 No. 4, pp. 444-459.

Aldás Manzano, J., Ruiz Mafé, C. and Sanz Blas, S. (2009) 'Exploring individual personality factors as drivers of m-shopping acceptance', *Industrial Management and Data Systems,* Vol. 109 No. 6, pp. 739-757.

Al-Dwairi, R. (2017) 'Social commerce adoption among Jordanian youth: empirical study'. *International Journal of Business Information Systems*, Vol, 26 No. 3, pp. 277-296

Al Khasawneh, M.H. and Irshaidat, R. (2017) 'Empirical validation of the decomposed theory of planned behaviour model within the mobile banking adoption context', *International Journal of Electronic Marketing and Retailing*, Vol. 8 No. 1, pp. 57-76.

Anderson J.E., Schwager, P.H. and Kerns, R.L. (2006) 'The drivers of the acceptance of tablet pc's by faculty in a college of business', *Journal of Information Systems Education*, Vol. 17, No. 4, pp. 429-440.

Anderson, J.C. and Gerbing, D.W. (1988) 'Structural Equation Modelling in Practice: A Review and Recommended Two-Step Approach', *Psychological Bulletin American*, Vol. 103 No. 3, 411-423.

Araujo, T. and Neijens, P. (2012) 'Friend me: which factors influence top global brands' participation in social networks', *Internet Research,* Vol. 22 No. 5, pp. 626-640.

Ayegba, A., Ochiba, A.A., Dominic, O.A. and Danladi, O.A. (2017) 'A study of consumers' experience on online shopping in Nigeria', *International Journal of Advancements in Research and Technology*, Vol. 6 No. 4, pp. 22-32.

Babin, B.J. and Darden, W.R. (1995) 'Consumer self-regulation in a retail environment', *Journal of Retailing*, Vol. 71 No. 1, pp. 47-70.

Baethge, C., Klier, J. and Klier, M. (2016) 'Social commerce – state-of-the-art and future research directions'. *Electron Markets*, Vol. 26, pp. 269–290.

Bagozzi, R.P. and Yi, Y. (1988) 'On the evaluation of structural equation models', *Journal of the Academy of Marketing Science*, Vol. 16 No. 1, pp. 74-94.

Bailey, C.M. (2010) *Why social media matters to your business*. Chadwick Martin Bailey Research report: Boston, MA: Bailey Publishing.

Baker, J. and Haytko, D. L. (2004) 'It's all at the mall: exploring adolescent girls' experiences'*, Journal of Retailing,* Vol. 80 No. 1, pp. 67-83.

Boorstin, J. (2015) 'Facebook adds"shop" tab to push e-commerce', *Media Money* [online] https://www.cnbc.com/2015/10/12/facebook-adds-shop-tab-to-push-e-commerce.html (Accessed 10 March 2017).

Borges, A., Chebat, J.C. and Babin, B.J. (2010) 'Does a companion always enhance the shopping experience?', *Journal of Retailing and Consumer Service*, Vol. 17, pp. 294-299.

Busalim, A.A.H., Razak C.G.A.B and Fadhil Yusof, A. (2017) 'Customer engagement in social commerce: A theoretical review', *Journal of Theoretical and Applied Information Technology*, Vol. 95 No. 22, pp. 6288-6298.

Cha, J. (2009) 'Shopping on social networking web sites: Attitudes toward real versus virtual items', *Journal of Interactive Advertising*, Vol. 10 No. 1, pp. 77-93.

Chaney, P. (2014) 'Facebook's new "Buy" button: pros, cons for merchants', *Practical Ecommerce*. [online] https://www.practicalecommerce.com/Facebooks-New-%E2%80%98Buy%E2%80%99-Button-Pros-Cons-for-Merchants (Accessed 10 March 2017).

Cheung, C.M.K. and Lee M.O.K. (2006) 'Understanding consumers' trust in internet shopping: a multidisciplinary approach', *Journal of the American Society for Information Science and Technology,* Vol.57 No. 4, pp. 479-492.

Chiu, C-M., Lin, H-Y., Sun, S-Y. and Hsu, M-H. (2009) 'Understanding customers' loyalty intentions towards online shopping: An integration of technology acceptance model and fairness theory', *Behaviour and Information Technology,* Vol. 28, pp. 347-360.

Chong, A.Y.L. (2013) 'A two-staged SEM-neural network approach for understanding and predicting the determinants of m-commerce adoption', *Expert Systems with Applications*, Vol.40 No. 4, pp. 1240-1247.

Close, A.G. and Kukar-Kinney, M. (2010) 'Beyond buying: motivations behind consumers' online shopping cart use', *Journal of Business Research.,* Vol. 63 No. 9–10, pp. 986-992.

Culnan, M.J. and Armstrong, P.K. (1999) 'Information privacy concerns, procedural fairness, and impersonal trust: An empirical investigation', *Organization Science*, Vol.10 No. 1, pp. 104-115.

Davis, F.D., Bagozzi, R.P. and Warshaw, P.R. (1992) 'Extrinsic and intrinsic motivation to use computers in the workplace', *Journal of Applied Social Psychology*, Vol. 22 No. 14, pp. 1111-1132.

Del Bosque, R and Crespo, H.N. (2011) 'How do internet surfers become online buyers? An integrative model of e-commerce acceptance', *Behaviour and Information Technology*, Vol. 3, No. 2, pp. 161-180.

Demangeot, C., Broderick, A.J. and Craig, C.S. (2015) 'Multicultural marketplaces: New territory for international marketing and consumer research', *International Marketing Review*, Vol.32 No. 2, pp. 118-140.

Demaray, M.K. and Malecki, C.K. (2002) 'Critical levels of perceived social support associated with student adjustment', *School Psychology Quarterly,* Vol. 17 No. 3, pp. 213-241.

Dennis, C., Morgan, A., Wright, L.T. and Jayawardhena, C. (2010) 'The influences of social e-shopping in enhancing young women's online shopping behaviour', *Journal of Customer Behaviour*, Vol. 9 No. 2, pp. 151-174.

Dimke, R.K. and Fataniya, A. (2017) 'Social media e-customers' behaviours mining', *International Education and Research Journal*, Vol.3 No. 5, pp. 686-689.

Dinev, T. and Hart P. (2005) 'Internet privacy concerns and social awareness as determinants of intention to transact'*, International Journal of Electronic Commerce*, Vol. 10 No. 2, pp. 7-29.

Ellison, N.B., Steinfield, C. and Lampe, C. (2007) 'The benefits of Facebook friends: social capital and college students' use of online social network sites', *Journal of Computer-Mediated Communication*, Vol. 12 No. 4, pp. 1143-1168.

Esmaili, E., Desa, M.I., Moradi, H. and Hemmati, A. (2011) 'The role of trust and other behavioural intention determinants on intention towards using Internet banking', *International Journal of Innovation, Management in Technology*, Vol. 2, No. 1, pp. 95-100.

Farahwahida M.Y., Norsila, S., Mohd, F. and Latifah, A.L. (2013) 'The impact of Social Commerce (S-Commerce) in retailing market in Selangor', Paper Presented at *Seminar Hasil Peyelidikan, Kementerian Pengajian Tinggi Conference* 2013 - Sains Sosial dan Kemanusiaan, At EDC Hotel, Universiti Utara Malaysia, Kedah.

Fastoso, F. and Whitelock, J. (2011) 'Why is so little Marketing research on Latin America published in high quality journals and what can we do about it? Lessons from a Delphi study of authors who succeeded'*, International Marketing Review*, Vol. 28 No. 4, pp. 435-449.

Ferreira, F. and Barbos, B. (2017) 'Consumers' attitude toward Facebook advertising', *International Journal of Electronic Marketing and Retailing*, Vol. 8 No. 1, pp. 45-57.

Fredericks, B.L. (2015) 'Online shopping in South Africa' [online] www.techsys.co.za (Accessed 8 February 2017)

Fornell, C. and Larcker, D.F. (1981) 'Structural equation models with observable variables and measurement errors', *Journal of Marketing Research,* Vol. 18 No. 1, pp. 39-50.

Gefen, D. and Straub, D.W. (2004) 'Consumer trust in B2C e-commerce and the importance of social presence: experiments in e-products and e-services', *Omega,* Vol. 32 No. 6, pp. 407-424.

Goby, V.P. (2006) 'Personality and online/offline choices: MBTI profiles and favoured communication modes in a Singapore study', *Cyber Psychology and Behaviour*, Vol. 9 No. 1, pp. 5-13.

Goldstuck, A. (2018) 'South African social media landscape report', [online] http://gullanandgullan.com/wp-content/uploads/2017/10/13907_GG-Breakthrough-infographic.pdf (Accessed 10 April 2018).

Greenland, S. and Kwansah-Aidoo, K. (2012) 'The challenges of market research in emerging markets: a practitioner perspective from Sub-Saharan Africa', *Australasian Journal of Market and Social Research*, Vol. 20 No. 2, pp. 9-22.

Guido, G. (2006) 'Shopping motives, big five factors, and the hedonic/utilitarian shopping value: An integration and factorial study', *Innovative Marketing*, Vol. 2 No. 2, pp.57-67.

Gupta, S. and Kim, H.W. (2010) 'Value-driven Internet shopping: The mental accounting theory perspective', *Psychology and Marketing*, Vol. 27 No. 1, pp. 13-35.

Guo, C. (2010) 'The psychological influences of threat on B2C e-commerce adoption: an extended study and explanatory framework', *Journal of Promotion Management,* Vol. 16, No. 3, pp. 303-315.

Hair, F.H., Black, W.C., Babin, B.J., Anderson, R.E. and Tatham, R.L. (2006) *Multivariate data analysis*, 6th edition. Pearson-Prentice Hall.

Hajli, N., Shanmugam, M., Powell, P., and Love, P.E. (2015) 'A study on the continuance participation in on-line communities with social commerce perspective'. *Technological Forecasting and Social Change,* Vol. 96, pp. 232-241.

Han, B.O. and Windsor, J. (2011) 'User's willingness to pay on social network sites*', Journal of Computer Information Systems,* Vol. 51 No. 4, pp. 31-40.

Harris, L. and Dennis, C. (2011) 'Engaging customers on Facebook: challenges for e-retailers.', *Journal of Consumer Behaviour,* Vol. 10 No. 6, pp. 338-346.

Hasbullah, N.A., Osman, A., Abdullah, S., Salahuddin S.W., Ramlee N.F. and Soha, H.M. (2016) 'The relationship of attitude, subjective norm and website usability on consumer intention to purchase online: Evidence of Malaysian youth', *Procedia Economics and Finance,* Vol. 35, pp. 493-502.

Hayes, A.F., Preacher, K.J. (2010) 'Estimating and testing indirect effects in simple mediation models when the constituent paths are non-linear', *Multivariate Behavioural Research*, Vol.45, pp. 627-660.

Hedley, N. (2014) 'Consumers in SA are still wary of on-line shopping security', *Business Day*, 27 March 2014. [online] https://www.pressreader.com (Accessed 19 March 2017).

Herrero, A. and San Martin, H. (2012) 'Effects of the risk sources and user involvement on e-commerce adoption: application to tourist services', *Journal of Risk Research.* Vol. 15 No. 7, pp. 841-855

Ho, Y.T. (2010) *Effect of social support in the intention to continuous use and social commerce in microblog.* Unpublished Masters' Thesis, Taiwan: National Sun Yat-Sen University.

Hong, I.B. and Cha, H.S. (2013) 'The mediating role of consumer trust in an online merchant in predicting purchase intention', *Journal of Information Management,* Vol. 33, pp. 927-939.

Hsu, M.H., Chang, C.M. and Yen, C.H (2011) 'Exploring the antecedents of trust in virtual communities', *Behaviour and Information Technology*, Vol. 30 No. 5, pp. 587-601.

Huang, Z. and Benyoucef, M. (2013) 'From e-commerce to social commerce: a close look at design features.', *Electronic Commerce Research and Applications,* Vol. 12 No 4, pp. 246-259.

Hubbard, N. (2015) 'More ways to sell directly on Twitter. [online] https://blog.twitter.com/2015/more-ways-to-sell-directly-on-twitter (Accessed 11 June 2017).

Hubert, M., Blut, M., Brock, C., Backhaus, C. and Eberhardt, T. (2017) 'Acceptance of smartphone-based Mobile shopping: Mobile benefits, customer characteristics, perceived risks, and the impact of application context', *Psychology and Marketing*, Vol. 34 No. 2, pp. 175-194.

Ingham, J., Cadieux, J. and Berrada, A.M. (2015) 'e-Shopping acceptance: A qualitative and meta-analytic review', *Information and Management,* Vol. 52, pp 44-60.

Jarvenpaa, S.L. and Todd, P.A. (1997) 'Consumer reactions to electronic shopping on the world wide web', *Journal of Electronic Commerce,* Vol. 1 No. 2, pp. 59-88.

Juniwati (2014) 'Influence of perceived usefulness, ease of use, risk on attitude and intention to shop online', *European Journal of Business and Management*, Vol.6 No.27, pp. 218-228.

Kalinowski, J. (2016) 'Is 2017 the year for social commerce? [online] Ecommerce Consulting ecommerceconsulting.com/2016/12/2017-year-social-commerce.html (Accessed 29 March 2017).

Kemp. S. (2015) 'Global Digital Statshot' [online]: https://wearesocial.com/uk/special-reports/global-statshot-august-2015 (Accessed 28 June 2017).

Kendall, T. (2015) 'Coming soon: Buyable Pins! Pinterest' [online] https://business.pinterest.com/en/blog/coming-soon-buyable-pins (Accessed 4 March 2017).

Khalifa, M and Ning Shen, K. (2008) 'Explaining the adoption of transactional B2C mobile commerce', *Journal of Enterprise Information Management,* Vol. 21 No. 2, pp.110-124.

Khasawneh, M.H.A. and Irshaidat, R. (2017) 'Empirical validation of the decomposed theory of planned behaviour model within the mobile banking adoption context', *International Journal of Electronic Marketing and Retailing*, Vol. 8, pp. 157-76.

Khwaldeh, S., Al-Hadid, I., and Alrowwad, A. (2017). The association between e-services web portals information quality and ICT competence in the Jordanian universities. *Asian Social Science,* Vol 13 No. 3, pp. 156-169.

Kim, B.G., Park, S.C. and Lee, K.J. (2007) 'A structural equation modelling of the internet acceptance in Korea', *Electronic Commerce Research and Applications,* Vol. 6 No. 4, pp. 425-432.

Lages, C.R., Pfajfar, G. and Shoham, A. (2015) 'Challenges of conducting and publishing research on the Middle East and Africa in leading journals', *International Marketing Review*, Vol. 32 No. 1, pp. 52-77.

Lee, K.O., Shi, N., Cheung, C.M.K., Lim, K.H. and Sia, C.L. (2011) 'Consumer's decisions to shop online: the moderating role of positive informational social influence', *Information and Management*, Vol. 48, pp 185-191.

Lee, S. and Kim, B.G. (2009) 'Factors affecting the use of intranet; a confirmatory study', *Computers in Human Behaviour,* Vol. 25 No. 1, pp. 191-202.

Liang, T.P., Ho, Y.T., Li, Y.W. and Turban, E. (2011) 'What drives social commerce: The role of social support and relationship quality', *International Journal of Electronic Commerce,* Vol. 16 No. 2, pp. 69-90.

Liébana-Cabanillas, F., Villarejo-Ramos, A.F. and Sánchez-Franco M.J. (2014) 'Mobile social commerce acceptance model: Factors and influences on intention to use s-commerce'
Paper Presented at *Congreso Nacional de Marketing AEMARK*, At Elche-Alicante, Spain, Volume: Ed. ESIC, CD-ROM ISBN: 978-84-15986-51-5

Liew, E.J., Vaithilingam, S. and Nair, M. (2014) 'Facebook and socio-economic benefits in the developing world', *Behaviour and Information Technology*, Vol. 33 No. 4, pp. 345-360.

Lodha, A. (2017) 'Social media to E-Commerce system', *Imperial Journal of Interdisciplinary Research,* Vol. 3 No. 2, pp. 230-233.

Luckerson, V. (2015) 'Here's why "Buy Buttons" are invading the Internet', *Time*, 16 October 2015.

Mallat, N. (2007) 'Exploring consumer adoption of mobile payments - A qualitative study', *The Journal of Strategic Information Systems Archive,* Vol. 16 No. 4, pp. 413-432.

Marsden, P. (2010) 'S-commerce: Monetizing social media' *Germany GRIN Verlag*.

McKnight, D.H., Choudhury, V. and Kacmar, C. (2002) 'Developing and validating trust measures for e-commerce: an integrative typology', *Information Systems Research,* Vol. 13 No. 4, pp. 334–359.

Mohammed, A.B. (2014) 'Determinants of young consumers' online shopping intention', *International Journal of Academic Research*, Vol. 6,No. 1, pp. 475-482.

Mosteller, J., Donthu, N. and Eroglu, S. (2014) 'The fluent online shopping experience', *Journal of Business Research,* Vol. 67 No. 11, pp. 2486–2493.

Nutley, M. (2010) 'Forget E-commerce: social commerce is where it's at', *Marketing Week*, 29 July 2010. [online] https://www.marketingweek.com/2010/07/29/forget-e-commerce-social-commerce-is-where-its-at/ (Accessed 21 February 2017).

Olusoji J.G., Ogunkoya O.A., Lasisi J.O. and Elumah L.O. (2015) 'Risk and Trust in Online Shopping: Experience from Nigeria', *International Journal of African and Asian Studies,* Vol.11, pp. 71-77.

Pappas, N. (2016) 'Marketing strategies, perceived risks, and consumer trust in online buying behaviour.' *Journal of Retailing and Consumer Services*, Vol.29, pp. 92-103.

Phang, C., Sutanto, J., Kankanhalli, A., Li, Y., Tan, B. and Teo, H. (2006) 'Senior citizens' acceptance of information systems: a study in the context of e-government services', *IEEE Transactions on Engineering Management,* Vol. 53 No 4, pp. 555-569.

Pires, G., Stanton, J. and Eckford, A. (2004) 'Influences on the perceived risk of purchasing online', *Journal of Consumer Behaviour,* Vol. 4 No. 2, pp.118-131.

Prus, R. (1993) 'Shopping with companions: Images, influences and interpersonal dilemmas', *Qualitative Sociology*, Vol. 16 No. 2, pp. 87-110.

Rad, A.A. and Benyoecef, M. (2010) 'A model for understanding S-commerce', Paper Presented at the *Conference on Information Systems Applied Research CONISAR proceedings Nashville Tennessee*, Vol. 3 No. 1511, pp. 1-11.

Ranganathan, C. and Ganapathy, S. (2002) 'Key dimensions of business-to-user websites', *Information and Management*, Vol. 39 No. 3, pp. 457-465.

Reichheld, F.F. and Schefter, P. (2000) 'E-loyalty: Your secret weapon on the web', *Harvard Business Review*, Vol. 78 No. 4, pp. 105-111.

Rouibah, K. and Al-qirim, N. (2017) 'Factors affecting social ecommerce adoption in an Arab country: findings from a qualitative study', *Issues in Information Systems*, Vol. 18 No. 2 pp. 123-135.

Salisbury, W.D., Pearson R.A., Pearson, W.A. and Miller, D.M. (2001) 'Perceived security and world wide web purchase intention', *Industrial Management and Data Systems*, Vol. 101 No. 4, pp. 165-176.

Salvatori, L., and Marcant, F. (2015) 'Social commerce: A literature review', Paper Presented at the *Science and Information Conference* 2015, July 28-30, 2015, London, UK.

Sethna, B.N., Hazari, S. and Bergie, B. (2017) 'Influence of user generated content in online shopping: impact of gender on purchase behaviour, trust, and intention to purchase', *International Journal of Electronic Marketing and Retailing,* Vol.8 No.4, pp. 344-371

Shang, R.A., Chen, Y.C. and Shen, L. (2005) 'Extrinsic versus intrinsic motivations for consumer to shop online', *Information and Management*, Vol. 42 No. 3, pp. 401-423.

Shin, D. and Kim, W. (2008) 'Applying the technology acceptance model and flow theory to Cyworld users' behaviour', *Cyber Psychology and Behaviour*, Vol. 1 No. 4, pp. 12-20.

Shin, D.H. (2013) 'User experience in social commerce: in friends we trust', *Behaviour and Information Technology*, Vol. 32 No. 1, pp. 52-67.

Shin, Y.Y. and Chen, C.Y. (2013) 'The study of behavioural intention for mobile commerce: via integrated model of TAM and TTF', *Quality and Quantity,* Vol. 47 No 2, pp. 1009-1020.

Smith, C. (2015)' Facebook is leading the way in social commerce', Social Commerce 2015 Report*, Business Insider,* [online] http://www.businessinsider.com/social-commerce-2015-report-2015-7?utm_source=linkdintic (Accessed 9 November 2016).

Social Commerce Report (2015) [online] https://aasaindustryanalysis.files.wordpress.com/2015/06/bii_socialcommerce2015_jun15.pdf (Accessed 11 December 2016).

Social Commerce Report (2018) 'How Facebook, YouTube, Pinterest, and other popular apps are upending the e-commerce space'. [online] http://www.businessinsider.com/social-commerce-report-2018-1? (Accessed 9 October 2017).

Stephen, A.T. and Toubia, O. (2010) 'Deriving value from S-commerce networks'*, Journal of Marketing Research*, Vol. 47 No. 2, pp. 215-228.

Suh, B. and Han, I. (2003) 'The impact of customer trust and perceptions of security control on the acceptance of electronic commerce', *International Journal of Electronic Commerce*, Vol. 7 No. 3, pp. 135-161.

Sura, S and Ahn, J. (2017) 'The effects of service quality determinants on social-networking site-based commerce: the Malaysian customers' perspective', *Total Quality Management and Business Excellence,* [online] DOI:10.1080/14783363.2017.1372686 (Accessed 16 February 2018)

Tengah, N.A. (2016) *Determinants of consumers' behaviour change in social commerce via Facebook*, Unpublished PhD thesis, Terengganu: University Malaysia Terengganu.

Teo, T.S.H. (2001) 'Demographic and motivation variables associated with internet usage activities', *Internet Research*, Vol. 11 No. 2, pp. 125-137.

Tsai, L.H. (2003) *Relationships between Personality Attributes and Internet Marketing.* Unpublished PhD thesis, Alliant International University, San Diego, CA.

Van der Heijden, H. (2004) 'User acceptance of hedonic information systems', *MIS Quarterly*, Vol. 28 No 4, pp. 695-704.

Van Raaij E.M. and Schepers, J.J. (2008) 'The acceptance and use of a virtual learning environment in China', *Computers and Education*, Vol. 50 No 3, pp. 838-852.

Venkatesh, V. (2000) 'Determinants of perceived ease of use: Integrating control, intrinsic motivation, and emotion into the Technology Acceptance Model', *Information Systems Research,* Vol. 11 No. 4, pp. 342-365.

Venkatesh, V. and Davis, F.D. (2000) 'A theoretical extension of the technology acceptance model: four longitudinal field studies', *Management Science*, Vol. 46 No. 2, pp. 186-204.

Venkatesh, V., Morris, M.G., Davis, G.B. and Davies, F.D. (2003) 'User acceptance of information technology: toward a unified view', *MIS Quarterly*, Vol. 27 No 3, pp. 425-478.

Walters, P.G.P. (2001) 'Research at the margin: Challenges for scholars working outside the "American-European" domain', *International Marketing Review*, Vol. 18 No. 5, pp. 468-473.

Wang, C. and Zang, P. (2012) 'The evolution of social commerce: The people, management, technology, and information dimensions', *Communications of the Association for Information Systems*, Vol. 31 Article 5.

Wolfinbarger, M. and Gilly, M.C. (2001) 'Shopping online for freedom, control and fun', *California Management Review,* Vol. 43 No. 2, pp. 34-55.

Zimet, G.D., Powell, S.S., Farley, G.K., Werkman S. and Berkoff, K.A. (1990) 'Psychometric characteristic of the multidimensional scale of perceived social support', *Journal of Personality Assess?,* Vol. 55 No. (3-4), pp. 610-617.