

Predictors of Facebook Shopping Intentions among South African Generation Y Students

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Abstract: The purpose of this paper was to investigate predictors of Facebook shopping intentions. The sample of this study was students registered at two higher education institutions in the Gauteng province of South Africa. The author selected students because the majority of Facebook users are college students. This segment is also active in the marketplace and seeks value in their purchases. Participants were selected randomly and 300 questionnaires were distributed to the participants. Out of 300 questionnaires, 31 were discarded because of missing data resulting in a final sample of 269 participants. The findings of this study showed self-efficacy had a positive effect on both perceived ease of use and perceived usefulness on Facebook shopping intentions. Perceived usefulness in turn influences intention. Contrary to the findings of previous research, perceived ease of use does not have an effect on intention to use Facebook as a shopping channel. The study has important implications to marketers, as it will help in developing marketing strategies of organisations. Customers who are confident about Facebook shopping and who believe that this medium will provide useful information and enable quicker shopping are likely to use the medium for purchasing a product or a service of their choice.

Keywords: self-efficacy; perceived usefulness; perceived ease of use; Facebook shopping

JEL Classification: I23

1. Introduction

Facebook, a medium that enables marketers to deliver information about their offerings, is quickly becoming the driver of electronic commerce. Facebook is increasingly outpacing other electronic commerce channels with \$3.203 billion in advertising revenues generated in the third quarter of 2014 (eMarketer, 2014). This makes it a value-laden medium, effective as a shopping channel, which offers exceptional opportunities to tailor individualised product offerings (eMarketer, 2014), and thereby allowing individuals to have customised offerings delivered to their Facebook sites. One important benefit associated with Facebook is its ability to turn potential prospects into customers (eMarketer, 2013). Although there is an

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observed growth in global use of Facebook as a communication medium, little research has been conducted on shopping opportunities this medium offers. The commercial success of Facebook depends, as noted in the context of online shopping, in part on consumers' intention to use it and the perceptions of its functional and utilitarian dimensions- particularly the ease of use and usefulness (Cha, 2011). Davis (1985) explains the dimensions in his study. He conceptualises the drivers of behaviour in technology related environments as an all-encompassing phenomenon that manifests itself in a myriad of factors. Accordingly, he developed a model to study such behaviours, hereinafter referred to as the technology acceptance model (TAM). His model illuminates how intentions and attitudes determine an individual's behaviours. It also pinpoints how perceived usefulness and perceived ease of use influence an individual's attitudes and intentions.

In 1996, Venkatesh and Davis extended TAM to incorporate external variables such as self-efficacy. They found that self-efficacy is an important variable in information technology usage behaviours as it relates to a person's subjective judgement of his or her own abilities. Subjective judgement of abilities is described best by the self-efficacy construct of Bandura (1977) who posits that the "*strength of people's convictions in their own effectiveness is likely to affect whether they will even try to cope with given situations*" (p. 193).

In the context of electronic commerce, Kim and Kim (2005) observe that those customers who have high beliefs about their ability to purchase online are likely to attempt risky online transactions. This suggests that individuals tend to use information technology when they believe they have the necessary abilities for using such technology. Furthermore, self-efficacy influences both the constructs of TAM, perceived ease of use and perceived usefulness (Davis, 1989; Agarwal & Karahanna, 2000; Venkatesh, 2000; Venkatesh & Bala, 2008; Chen, Chen & Yen, 2011). In an online shopping environment, Dash and Saji (2000) noted that TAM explains the effects of self-efficacy on perceived usefulness. Thus, they found that self-efficacy has a positive effect on perceived usefulness. Self-efficacy and usefulness in turn influence intentions to make a purchase (Vijayasarathy, 2004; Hernández, Jiménez, & Martín, 2010). Against this backdrop, and in consideration of the lack of studies addressing Facebook shopping behaviours in developing countries like South Africa, the purpose of this study is to examine predictors of Facebook shopping intentions among South African Generation Y students. Intentions may assist in driving prospects into actual purchases (eMarketer, 2014). Generation Y age cohort, born between 1986 and 2005 (Markert, 2004), is active in the marketplace and are fashion conscious, and show high levels of brand awareness and seek value in purchases (Noble, Haytko & Phillips, 2009). Hence, the focus of this study is on this cohort.

2. Theoretical Background and Hypotheses

2.1 Self-efficacy in Information Technology Environments

Bandura (1977) observed that people who believe they can successfully perform a particular behaviour would persevere even in the presence of difficulties. He maintained that performance of behaviour is linked to an outcome. Thus, individuals perform an activity only if they believe they are capable of performing it and that the activity will produce a desired outcome (Hill & Beatty, 2011). Generally, beliefs about outcomes are important in understanding human-technology interactions. These beliefs are determined by individual characteristics such as self-efficacy. Ordinarily, self-efficacy entails assessment of behaviours that influence the decision-making process and effort put into the behaviour under study (Hsu, Ju, Yen & Chang, 2007). The effect of self-efficacy on the information technology environment such as the Web, Internet, computer use and mobile devices has been studied.

In the context of computers, self-efficacy describes “an individual's perceptions of his or her ability to use computers in the accomplishment of a task rather than reflecting simple component skills”. As a result, computer self-efficacy has been found to predict users' behaviours (Agarwal, Sambamurthy & Stair, 2000; Hsu, et al., 2007). When conducting a study of this nature, it is important to draw on the computer self-efficacy model derived from Compeau and Higgins (1995); and building on existing literature on self-efficacy in information technology environments, this study predicts that self-efficacy will play a significant role in Facebook shopping behaviours. In this study, self-efficacy refers to the evaluation of one's ability to use Facebook for shopping purposes.

2.2. Perceived Ease of Use

Perceived ease of use is defined as “the degree to which a person believes that using a particular system would be free of effort” (Davis, 1989:320). Information technology users often use technology only if they believe they have the ability and skills necessary to use such technology. Such perceptions are derived from the self-efficacy theory. Self-efficacy is regarded as a stronger predictor of perceived ease of use of information technology and users who believe that using a particular information technology would assist in accomplishing a certain task are more likely to have high self-efficacy (Hsu, et al., 2007). In the Facebook context, perceived ease of use will refer to ease of browsing an organisation's Facebook pages or ease of browsing the advertisements on user's Facebook pages.

2.3. Perceived usefulness

Perceived usefulness is defined as the “degree to which a person believes that using a particular system would enhance his or her job performance” (Davis, 1989:320). Wang, Wang, Lin and Tang (2003) identified a relationship between perceived usefulness and self-efficacy. They assert that individuals with high self-efficacy will find computer technology useful. Several studies (Agarwal & Karahanna, 2000; Luarn & Lin, 2005; Guriting, & Ndubisi, 2006; Wu, Wang & Lin, 2007) showed that self-efficacy was positively related to perceived usefulness. In the Facebook context, self-efficacy had a significant and positive effect on perceived usefulness (Wang, Xu & Chan, 2008). In this study, perceived usefulness refers to the extent to which individuals believe Facebook will provide useful information and enable quicker shopping.

2.4. Intention

Usually, an individual’s behaviour determines their intention to perform the behaviour (Venkatesh, Brown, Maruping & Bala, 2008). According to Ajzen (1991:181) intentions “are indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behavior”. Thus, intention refers to a person’s decision to act and is assumed to reflect the effort a person is likely to exert in order to achieve a goal or perform a behaviour (Abraham & Sheeran, 2003) and could be increased through self-efficacy (Venkatesh, Morris, Davis & Davis, 2003; Hsu & Chiu, 2004; Luarn & Lin, 2005).

3. Research Model and Hypotheses

Figure 1 depicts the research model of this study. As shown below, the model proposes that self-efficacy would influence selected constructs in the TAM, namely, perceived ease of use and perceived usefulness. These constructs are expected to play a major role in shaping intention to shop on Facebook. Therefore, this study hypothesises that:

H₁: Facebook shopping self-efficacy will have a positive effect on perceived ease of use

H₂: Facebook shopping self-efficacy will have a positive effect on perceived usefulness

H₃: Perceived ease of use significantly influences respondents’ intention to use Facebook sites to purchase products

H₄: Perceived usefulness significantly influences respondents' intention to use Facebook sites to purchase products

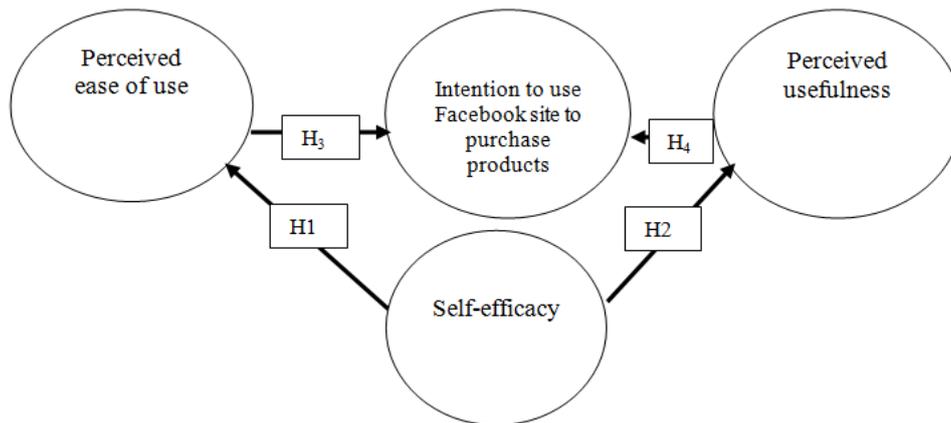


Figure 1. Proposed research model

Source: A research model based on previous TAM literature

4. Methodology

4.1 Sample and Data Collection

The sample of this study was students registered at two higher education institutions in the Gauteng province of South Africa. The author selected students because the majority of Facebook users are college students (Roblyer, McDaniel, Webb, Herman, & Witty, 2010). Importantly, Wolburg and Pokrywczynski (2001) maintain that university students are an essential segment for marketers. Participants were selected randomly and 300 questionnaires were distributed to the participants. Out of 300 questionnaires, 31 were discarded because of missing data resulting in a final sample of 269 participants. Approximately 55 percent of the respondents were female and 45 percent male.

4.2 Measurement Instrument

The questions were adapted from the original instrument developed by Davis (1985). The key TAM constructs measured were perceived ease of use, perceived usefulness and intention. Modifications were made to fit the current research context and purpose. Items from self-efficacy were adapted from the Compeau and Higgins (1995) instrument. Participants were asked to indicate their level of self-efficacy, perceived of use, perceived usefulness and intention for each scenario

using a six-point scale ranging from strongly disagree (1) to strongly agree (6) as end points.

5. Data Analysis and Results

To analyse data of this study, structural equation modelling (SEM) was applied using SPSS Amos 22. A two-step analytic process was followed by assessing the measurement and the structural model (McDonald & Ho, 2002). Descriptive statistics were performed using SPSS. Furthermore, tests on confirmatory factor analysis, model fit, reliability and validity were performed.

5.1 Construct Reliability and Validity

Reliabilities of constructs were assessed using composite reliability (CR) and variance extracted (AVE). Recommended values for CR and AVE are 0.70 and 0.50 respectively. The composite reliability for all the factors were above the 0.70 recommended value suggested by Malhotra (2010). Furthermore, the average variances extracted are greater than the 0.50 value recommended by Bagozzi and Yi (1988). Table 1 presents factor loadings, and composite and average variance extracted (AVE) values.

Validity of the constructs were assessed using convergent and discriminant validity. In order for the items of the scale to exhibit convergent validity, they should highly correlate and the values should be greater than zero (Churchill Jr, 1979). Factor loadings exceeded the recommended value of 0.50 suggested by Bagozzi and Yi (1988), indicating the existence of convergent validity. Factor loadings ranged from 0.670 to 0.904.

Table 1. Standardised factor loadings, CR and AVE

Construct	Factor loadings	CR	AVE
Self-efficacy			
I feel capable of using Facebook for making purchases	0.794	0.97	0.92
I feel comfortable searching for information about a product on Facebook	0.725 0.788		
Learning to use Facebook for searching products was easy for me			
Perceived ease of use			
Using Facebook to purchase a product would not require a lot of mental effort	0.638 0.755	0.91	0.84
Using Facebook to acquire a product would permit me to purchase more efficiently			

Perceived usefulness			
Using Facebook to acquire a product would permit me to purchase more quickly	0.670 0.729	0.91	0.84
Using Facebook to acquire a product would be useful to make my purchases			
Intention			
I intend to purchase through Facebook site in the near future	0.878	0.98	0.94
It is likely that I will purchase through Facebook site in the near future	0.904 0.830		
I expect to purchase through Facebook site in the near future			

Source: Author's computation based on field survey 2014

To examine discriminant validity, guidelines suggested by Malhotra (2010) stating that the square root AVE should exceed the values of the correlation of the related construct were followed. Table 2 lists the inter-correlation matrix and shows that the square root of average variance extracted illustrated in diagonal, exceeded the values of the construct correlations confirming discriminant validity. Overall, the measurement model shows reliability and validity.

Table 2. Inter-item construct correlation matrix and discriminant validity

	Self- efficacy	Perceived usefulness	Perceived ease of use	Intention
Self- efficacy	0.96			
Perceived usefulness	0.602	0.92		
Perceived ease of use	0.799	0.685	0.92	
Intention	0.574	0.520	0.513	0.97

**p<0.01 (two-tailed)

Source: Author's computation

5.2 Predicting Shopping on Facebook

To predict shopping on the Facebook medium, a structural model was formulated. The structural model was evaluated using the maximum likelihood method. To assess the fit indices of the hypothesised model, a comparison of fit indices with their corresponding values was provided. The fit indices of this study are within accepted recommended values. The fit indices for the constructs are listed in Table 3.

Table 3. Fit indices

Fit indices	Recommended value	Score for this study
GFI	≥ 0.90	0.912
AGFI	≥ 0.80	0.843
NFI	≥ 0.90	0.914
CFI	≥ 0.90	0.933
RMSR	< 0.08	0.0552

Source: Author's computation

The results of the proposed model indicate strong support for the proposed hypotheses with the exception of a proposed relationship between perceived ease of use and intention to use Facebook.

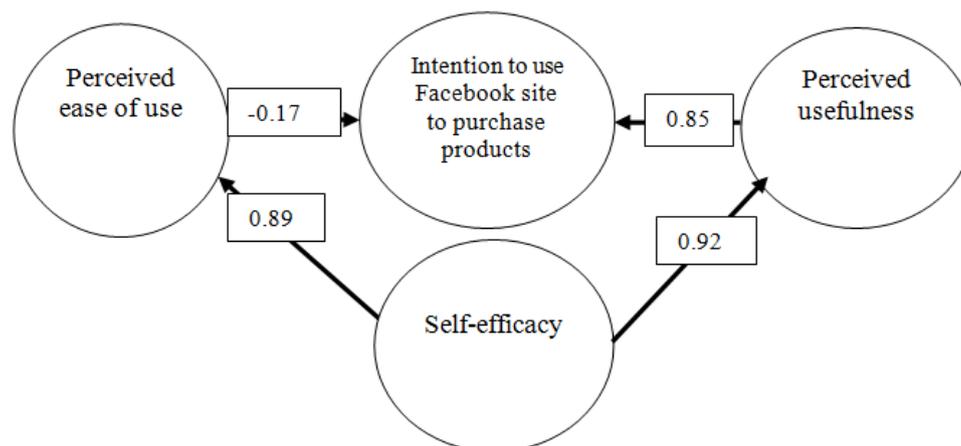


Figure 2. Results of structural equation model

Source: Computation based on results of author's field survey 2014

The standardised parameter estimates indicate that the path ($\beta=0.89$) between self-efficacy and perceived ease of use of Facebook are positive and significant ($p=0.000<0.05$). There is a positive significant ($p=0.000<0.05$) relationship between self-efficacy and perceived usefulness of Facebook ($\beta=0.92$). Perceived usefulness significantly ($p=0.000<0.05$) influences intention to use Facebook ($\beta=0.85$). Therefore, the results of this study supported hypothesis 1, 2 and 4 respectively. The hypothesis that perceived ease of use significantly influences intention to use Facebook, has not been confirmed by the results of this study. The findings indicate that perceived ease of use had a negative and insignificant

($p=0.406>0.05$) effect on intention to use Facebook ($\beta=-0.17$). Thus, hypothesis 3 was not supported. Table 4 shows a summary of the hypotheses.

Table 4. Summary of hypotheses results

Hypothesis	Results
H ₁ : Self-efficacy will have a positive effect on perceived ease of use of Facebook	Supported
H ₂ : Self-efficacy will have a positive effect on perceived usefulness of Facebook	Supported
H ₃ : Perceived ease of use significantly influences intention to use Facebook	Rejected
H ₄ : Perceived usefulness significantly influences intention to use Facebook	Supported

Source: Author's field survey results 2014

6. Discussion of Results and Conclusion

An individual's intention to use a communication medium depends upon their confidence in their own capabilities. Furthermore, other important aspects are the extent to which such medium is easy to use and whether it is useful in assisting individuals to perform their tasks. The purpose of this study was to investigate predictors of shopping on the Facebook medium. The study applied TAM as a research framework to predict behavioural intentions of Facebook shopping. The findings of this study showed that of the TAM constructs, self-efficacy influence intentions to use Facebook as a shopping medium and the influence occurs through perceived usefulness and perceived ease of use. This is consistent with other studies (Venkatesh, 2000; Yi & Hwang, 2003; Wang & Lin, 2007; Zhang & Mao, 2008), which indicated that self-efficacy is a dominant factor in predicting both perceived ease of use and perceived usefulness. Even in their study, Dash and Saji (2000) point out that self-efficacy played a major role in online shopping behaviours. Hence, they found a significant relationship between self-efficacy and perceived usefulness. In this study, perceived usefulness is another factor influencing respondents' intention to use Facebook as a shopping medium. It seems that respondents' intention to use Facebook intensifies when they believe it is useful for shopping purposes. This finding is consistent with the results of Cha (2011) who reported, in the context of the Internet, that perceived usefulness is more prominent when the respondents believe the Internet will help them purchase the items they require.

Contradictory to the findings of previous TAM research, perceived ease of use does not have an effect on intention to use Facebook as a shopping medium. These findings are unexpected and surprising. The underlying reason for this finding may be attributed partly to the nature of Facebook. By its invention, Facebook social networking site is designed in such a way that it is easy to perform tasks such as updating, analysing and sharing of information (Mazman & Usluel, 2010). Hence, even the inexperienced user may find it easy to navigate and browse through the medium quickly. However, consistent to studies of perceived ease of use in the online shopping context, the findings of this study are similar to the results of Domina, Lee and MacGillivray (2012), who reported that perceived ease of use had no influence on shopping intentions in virtual environments. Overall, results of this study suggest that self-efficacy and perceived usefulness better predicts Facebook shopping intentions than perceived ease of use.

7. Implications, Limitation and Future Research

The findings of this study provide useful information to practitioners. As the number of organisations adopting Facebook as a preferred electronic commerce medium increase, it is important that people have a strong belief in their own abilities in using this medium for shopping purposes. By designing ease to use and a useful site, this will enhance users' confidence in their capabilities in browsing and navigating the site. As such, customers who are confident about Facebook shopping and who believe that this medium will provide useful information and enable quicker shopping are likely to use the medium for purchasing a product or a service.

The findings of this study have theoretical implications. From a theoretical point of review, this study introduced self-efficacy, perceived ease of use, perceived usefulness and intentions to the research of Facebook. While these constructs have been used in numerous research studies and have been accepted as valid constructs to predict online shopping behaviours, little is known on the influence of self-efficacy, perceived ease of use and perceived usefulness in the context of Facebook shopping intentions especially in a developing country like South Africa. As such, this study demonstrated that perceived usefulness and self-efficacy are the main predictors of Facebook shopping intentions among Generation Y students in a developing country like South Africa.

Despite a strong support of the use TAM to study Facebook shopping behaviours, this study is fraught with limitations. This study used selected constructs of the TAM. Based on previous research on TAM, attitudes play an important role in determining online shopping behaviours. Additionally, researchers using TAM

often incorporate trust as an important variable in studying online shopping behaviours. Perhaps one of the observed limitations of this study is the omission of this important construct. Future research should investigate trust-based construct in the context of Facebook shopping behaviours, as this construct is believed to inhibit successful shopping behaviours in the online context. Furthermore, other variables such as actual purchase experience of the products advertised on Facebook sites and benefits derived from such purchase, should be examined. Finally, another major limitation is the use of a student cohort. In order to see the benefits of Facebook commerce, the non-student segment should be studied.

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