# Consumer Adoption of Social Commerce

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**Abstract.** The paper considers the emergent, so called, 'social commerce' imperative which enables consumers to generate active WEB content and engage commercially with providers through social networking systems. It is apparent that little research currently addresses the need for an understanding of consumer adoption in this respect and therefore further critical issues involved in contemporary consumer research. Our contribution relates to a consideration of adoption behaviour through the formulation of the technology acceptance model (TAM), social commerce constructs and trust. We consequently present specific insights into consumers 'intention to buy' through social commerce engagement. The results of our research also inform providers with an initial important awareness of the impact of social media within a commercial context.

**Keywords:** Social commerce · TAM · Intention to buy · SEM-PLS

## 1 Introduction

Electronic commerce has emerged mainly from the information systems (IS) literature, which integrates factors from the marketing discipline into information technology (IT) adoption. The current perspective of e-commerce adoption generally divides into two main streams, ie Technology Acceptance Model (TAM) (Davis, 1989) and the Theory of Planned Behavior (TPB) (Ajzen, 1985). However, e-commerce has now developed into, so called, social commerce facilitated by new advances in Web 2.0 technologies (M. Hajli, 2013). Social commerce is a new stream in 'commerce' integrating social networking sites (SNSs) particularly in electronic media platforms (Liang, Ho, Li, & Turban, 2011). The increasing application of SNSs provides an opportunity for researchers to rethink consumer adoption of e-commerce (Cooke and Buckley, 2008). Traditionally in e-commerce, consumers interact with online vendors and base their decisions on information provided by the vendors' websites (Gefen & Straub, 2004) but in social commerce, customers rely on the information produced by their peers (Hajli, Lin, & Hajli, 2013). Social commerce has changed the nature of online consumer activity and has enabled users to interact with other consumers before making any purchasing decisions (Hajli & Lin). This raises critical questions such as; does social commerce bring any new aspects to the market?; if so, does this impact on a consumer's e-commerce adoption? In addition, the question of trust, a vitally important

factor in e-commerce (Ono et al., 2003), is also apparent. Trust is a fundamental element in trading in an online context (Morid & Shajari, 2012). In the social commerce era, there are now new facilities in e-commerce platforms to establish trust through the social interaction of individuals in SNSs (Hajli et al., 2013).

The purpose of this paper is to explain and empirically test e-commerce adoption from a social commerce perspective at the consumer level. More specifically, our research seeks to integrate the underlying constructs of social commerce - forums and communities, ratings and reviews, recommendations and referrals (N. Hajli, 2013) - with e-commerce constructs into TAM. Although TAM is a traditional theoretical framework, its adoption within consumer research makes a useful contribution to the new stream of social commerce. Most importantly, TAM has been proven to be a successful theory in predicting acceptance behaviour (Cheng & Yeh, 2011). In addition, the study of consumer behaviour in SNSs by integrating TAM and social commerce constructs is believed to be another contribution to the area. The main objective is to propose and formulate a comprehensive adoption model, from the social commerce perspective, thus contributing to a new paradigm of consumer behavior research.

## 2    Literature Review

Electronic (e)-commerce has been well studied in the IS discipline (Ba & Pavlou, 2002; Pavlou & Dimoka, 2006) and focuses on online consumer engagement in online transactions with vendors (Pavlou & Fygenson, 2006). Purchasing intentions and information acquisition about product are the two main components of established online consumer behaviour. Online activity extends beyond purchasing a product, it is also about acquiring product information before making any purchasing decisions (Gefen & Straub, 2000; Pavlou & Fygenson, 2006). Consequently, acquired product information is a critical element for any consumer purchasing decision. However, via the applications of Web 2.0 technologies, consumers now have more resources and can easily obtain all the relevant product information they may need (Huang & Benyoucef, 2013). The social communication between consumers and the interconnectivities through SNSs have developed e-commerce into social commerce (Liang et al., 2011). Social commerce provides consumers with a host of platforms and opportunities to communicate with other experienced consumers before they purchase a product.

*Social commerce is a new concept which enables customers to have an active position in cyber space. It is a development in e-commerce based on a network of buyers and sellers. It is more commonly found in social and interactive forms of e-commerce (N. Hajli, 2013).*

The process of acquiring product and shopping information is similar to window shopping (Gefen & Straub, 2000), transferring product information from an e-vendor's website to consumers (Pavlou & Fygenson, 2006). Previously, the internet was less involved in the relationship of buyer and seller (Deeter-Schmelz & Kennedy, 2004) but now Web 2.0 has introduced a more interactive environment between two parties intent on trading. Social commerce moves consumers from traditional e-commerce websites to social commerce websites and to share shopping information amongst consumers.

The era of social commerce is becoming better established and is becoming more influential than traditional systems of depending on business websites for information (Owyang, 2009).

## 3   Consumer Behavior Research Model

Within our proposed model nine constructs were determined and analyzed, as follows:

**H1:** Learning and training positively affects consumers' intention to use an e-vendor's website for shopping.

**H2:** Perceived ease of use is positively associated with a consumer's online learning and training.

**H3:** A consumer's computing and internet experience positively affects his/her trust in an e-vendor's website.

**H4**: A consumer's computing and internet experience is positively associated with his/her perceived ease of use.

**H5:** A consumer's computing and internet experience is positively associated with his/her social presence.

**H6:** The level of social presence embedded in an e-vendor's website is positively related to consumer trust in that website.

**H7:** An increased degree of familiarity with an e-vendor's website is positively associated with consumer trust in that website.

**H8:** Social commerce constructs will increase a user's familiarity with an e-vendor's website.

**H9:** Social commerce constructs are positively associated with social presence.

**H10:** A consumer's perceived usefulness is positively related to his/her intention to use an e-vendor's website.

**H11:** A consumer's perceived ease of use is positively related to his/her perceived usefulness of an e-vendor's website for shopping.

**H12:** A consumer's perceived ease of use is positively related to his/her intention to use an e-vendor's website.

**H13:** A consumer's perceived ease of use is positively related to his/her trust in an e-vendor's website.

**H14:** Social commerce constructs are positively related to a consumer's perceived ease of use.

**H15:** A consumer's trust in an e-vendor's website is positively related to his/her intention to use that website for shopping.

## 4   Research Methodology

The main sample of this research is based on the cooperation of 215 internet users with 1200 emails and paper questionnaires issued. Respondents were asked to use their previous online shopping experiences to answer the questions. In total 226 samples were received with a response rate of 19%. The usable sample was 215, comprising of 65% female and 35% male. In the administration of the online-survey, different issues

that might affect people's participation were considered. For instance, a webpage with helpful graphics and an easy to navigate email were provided for participants in the survey. In an invitation letter email, respondents were asked to take part by simply clicking on a 'link' and completing the survey. A pre-test was conducted with a total of 30 students, 20 female and 10 male, mostly postgraduate students, to enhance the measurement scales. This was good practice as useful comments on the questionnaire were received, helping with face validity. This pre-test data was excluded from the main dataset.

## 5   Measurements

Most of the measurement items were adapted from the existing literature in e-commerce adoption and social commerce. Social commerce constructs are forums, communities, ratings, reviews and recommendations (N. Hajli, 2013). Learning and training were not used in e-commerce adoption models but the author is proposing this to assess the influence of this variable on user behaviour. Trust, PU and intention to use were adapted from Gefen et al, (Gefen, Karahanna, & Straub, 2003). Familiarity was based on Gefen (Gefen, 2000). PEOU was adopted from Gefen, Karahanna and Straub (Gefen et al., 2003). User experience was adopted from Crobitt et al. (Corbitt, Thanasankit, & Yi, 2003) and social presence was based on Gefen and Straub (Gefen & Straub, 2004).

## 6   Results of Measurement Model Testing

Construct validity can be checked by discriminant and convergent validity (Chin, Gopal, & Salisbury, 1997). To test convergent validity, AVE is considered. This should be at least 0.50 (Wixom & Watson, 2001). The results are shown in Table 1. AVE in all constructs is more than 0.50, indicating that the research has achieved this criterion. PLS for discriminant validity was also carried out. Details of correlation matrix among constructs are shown in Table 2.

## 7   Results of Structural Model Testing

The model (Fig. 1.0) validity is assessed by $R$ square value and the structural paths (Chwelos, Benbasat, & Dexter, 2001). This was undertaken using bootstrapping to test the statistical significance of construct path coefficient by means of t-tests. In this model, user experience path coefficients of its causal links with social presence and trust are not significant. This means that user experience does not influence social presence and trust in this model. However, all other constructs are significant and the finding supports the hypotheses at p<0.05 level.

In Fig. 1.0, the R square values are shown, indicating that almost 40% of the variance in the intention to buy was accounted for by the constructs in the model. This means that intention to buy was, as hypothesized, affected by PU, PEOU, learning and

**Table 1.** PLS Quality Criteria Overview

| Constructs | AVE | Composite Reliability | Familiarity | Intention to buy | Learning & Training | PEOU | PU | Social Commerce Constructs | Social Presence | Trust | User Experience |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Familiarity | 0.619549 | 0.828736 | 0.78 | | | | | | | | |
| Intention to buy | 0.564577 | 0.710052 | 0.338347 | 0.76 | | | | | | | |
| Learning & Training | 0.546566 | 0.778358 | 0.281665 | 0.28408 | 0.74 | | | | | | |
| PEOU | 0.550301 | 0.830307 | 0.432856 | 0.529019 | 0.172742 | 0.75 | | | | | |
| PU | 0.606145 | 0.859794 | 0.703996 | 0.428998 | 0.293058 | 0.46834 | 0.78 | | | | |
| Social Commerce Constrcuts | 0.529498 | 0.755532 | 0.368791 | 0.310725 | 0.30481 | 0.35453 | 0.33542 | 0.73 | | | |
| Social Presence | 0.661446 | 0.886382 | 0.095263 | 0.3085 | 0.232043 | 0.22345 | 0.08501 | 0.159671 | 0.82 | | |
| Trust | 0.535672 | 0.821271 | 0.400998 | 0.537355 | 0.214943 | 0.56975 | 0.5311 | 0.270012 | 0.239739 | 0.74 | |
| User Experience | 0.759978 | 0.904738 | 0.51103 | 0.364354 | 0.240072 | 0.44213 | 0.43856 | 0.104499 | 0.146271 | 0.32639 | 0.88 |
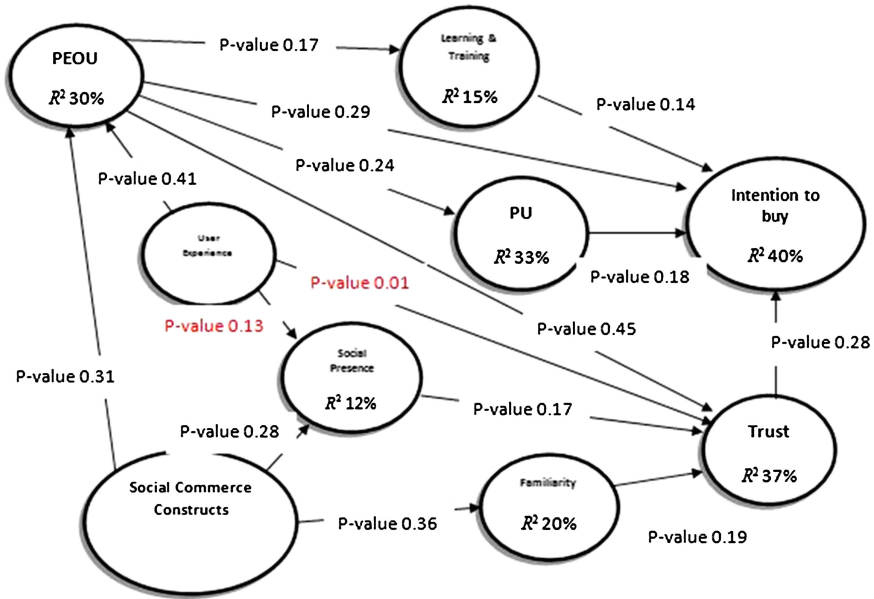
**Fig. 1.** Consumer behavior model

trust. Trust also has a notable R square value. The results show that 37% of the variance in this construct was accounted for by familiarity, social presence and PEOU. The other construct with a good R square value is PU, where almost 33% of the variance was accounted for by trust and PEOU in the model. PEOU has an R square value of 30%, accounted for by social commerce constructs and user experience. Familiarity, with an R square value of 20%, learning and training, with an R square value of 15%, and finally social presence, with an R square value of 12%, are the results obtained for the other constructs (Fig. 1).

## 8  Discussion

The aim of this paper is to provide a further understanding of consumer e-commerce adoption from a social commerce perspective thus illumination current and relevant consumer behaviour. A comprehensive model integrating e-commerce and social commerce constructs has been proposed. More specifically, this study investigates the impact of social commerce constructs on a technology acceptance model and trust, leading to intention to buy. It is seen that social commerce constructs could be incorporated into an e-commerce adoption model. The results of this structural model analysis show that social commerce constructs, namely, forums, communities, ratings, reviews and recommendations influence social presence and familiarity of e-commerce platforms leading to trust. The trust established through social commerce constructs will affect a customer's intention to buy. In addition, social commerce constructs influence perceived ease of use and indirectly perceived usefulness, which together

affect intention to buy. These results show that consumers are using social commerce constructs, which in turn make them more likely to use e-commerce platforms successfully due to the information gathered from these social commerce constructs. This positively increases their trust in e-commerce platforms and helps them in their purchasing journey. Moreover, social commerce constructs make e-commerce platforms easy to use through social media. This also affects their decisions regarding shopping online.

## 9   Theoretical Implications

The key constructs of the model - perceived ease of use, perceived usefulness, and intention to use - come from the domain of information systems. This confirms the important role of information systems in predicting consumer behaviour in an online context. The impact of these constructs highlights the fact that information systems can be a reference discipline for future study of online customer behaviour. There has also been an emergence of social media and social commerce in the business studies sector. The other contribution made by this research is to demonstrate that e-commerce studies mainly use two main streams, TRA and TAM. However, social commerce is a new stream in e-commerce, highlighting the role played by social media and social networking sites in e-commerce platforms. Therefore, using social commerce constructs and integrating these constructs with TAM theory can provide a model for a new theoretical framework for e-commerce adoption studies. Considering social commerce constructs in B2C e-commerce adoption not only extends e-commerce adoption models but also gives a more holistic understanding of the behaviour of online customers. The importance of a positive social online environment in adoption processes is emphasized. This is a new integrated model in e-commerce adoption to date. This also improves the predictive power of the e-commerce adoption model since this model considers all of the main aspects related to the adoption process of e-commerce. Finally, trust as a key element of an online transaction is highlighted as a crucial factor in this research. The research argues that social commerce constructs influence trust, leading to intention to buy.

## 10   Conclusion

To better understand e-commerce adoption, a new model based on the technology acceptance model, social commerce constructs and trust is proposed. Through empirical research, data has been analyzed by SEM-PLS to validate the model. The results show that trust is still a central factor in an online context; this significantly impacts on intention to buy. Results also show that social commerce constructs increase a user`s familiarity and trust; this affects intention to use. By integrating the technology acceptance model, social commerce constructs and trust in an e-commerce adoption model, this research has shown that social interaction of individuals in social networking sites has significant economic value which influence perceived ease of use and indirectly affect trust and intention to buy.

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