

# Electronic Commerce Adoption through Social Commerce: A Literature Review

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**Abstract:** This paper conducted a literature review on the adoption of e-commerce adoption through social commerce. The factors driving the adoption of social commerce is very important since it provides the needed background information for policymakers to help regulate the e-commerce and social commerce industry. Technology adoption theories were also reviewed. Some of the adoption theories or models used to explain the adoption of e-commerce and social commerce among users are Diffusion of Innovation (DOI), Technology Acceptance Model (TAM), Theory of Reason Action (TRA), Technology, Organizational, and Environment (TOE), Theory of Planned Behavior (TPB), Unified Theory of Acceptance and Use of Technology (UTAUT). These theories are vital in understanding the reasons accounting for the uptake of social commerce.

## 1 INTRODUCTION

The era of social commerce has come to stay due to the thriving presence of social media systems. The increasing use of social commerce is also hinged on the increase in the number of social media users across the world. Social commerce is considered an extension of electronic commerce (e-commerce). Social commerce is defined as an e-commerce site that is integrated with social media and web 2.0 technology to empower purchase online and interactions with consumers before, during, and after the transaction process (Hossain & Kim, 2020; Meilatinova, 2021).

The objective of this study is to undertake a literature review of e-commerce adoption via social commerce system. Social commerce is a new system that is driving the major shift in the e-commerce structure and systems. It has brought a new impetus and life into the traditional concept of e-commerce. It provides wider integration of users into the e-commerce concept through the good environment of social media. This literature review does will provides some ideas into the drivers of e-commerce adoption through social commerce.

The rest of the paper is prepared in the order as follows: a literature review that looks at e-commerce, social commerce, information technology adoption

theories, and recent studies on e-commerce and social commerce. This is followed by discussions and conclusions.

## 2 LITERATURE REVIEW

### 2.1 e-Commerce

The introduction of technology-related applications in the buying and selling of goods and services is termed e-commerce. It is defined as the use of internet-enabled technology to drive the exchange of product, order, payment, and shipping information during a business transaction process (Mangiaracina, Perego, Seghezzi, & Tumino, 2019; Visser & Lanzendorf, 2004; Zeng, Jia, Wan, & Guo, 2017). E-commerce can be classified into forms such as business to business (B2B), consumer to consumer (C2C), and business to consumer (B2C) e-commerce transactions (Salsabila & Saraswati, 2021; Visser & Lanzendorf, 2004).

E-commerce can drive diverse effects in the supply chain processes: access to information of many other actors in the chain, shopping and associated travel consumer behavior, activity patterns and related travel consumer behavior, residential and work location choices of consumers,

the volume and nature of consumer demand and the spatial patterns of distribution systems (Giuffrida, Mangiaracina, Perego, & Tumino, 2017; Visser & Lanzendorf, 2004). A framework of the impact of e-commerce B2C transactions on mobility and accessibility is displayed in Fig. 1.

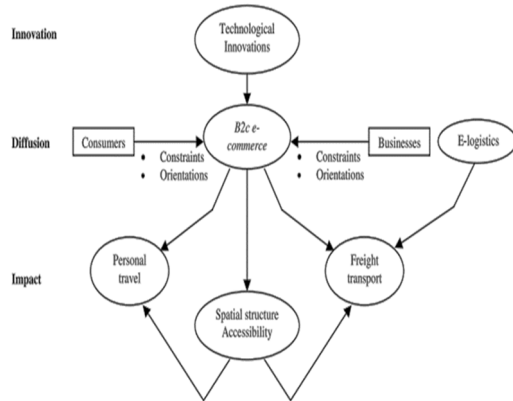


Figure 1: A framework of the impact of B2C e-commerce transactions on mobility and accessibility (Visser & Lanzendorf, 2004).

Some constraints prevent successful e-commerce transactions, especially from B2C e-commerce. These constraints can be put into social and economic factors which relate to issues such as motivation, attitudes, and features of consumers and data needed for shopping online (Kumar & Kaur, 2021; Visser & Lanzendorf, 2004).

The social constraints dimension is associated with consumers' ability to participate in e-commerce transactions (B2C) and the elements driving the readiness to undertake e-commerce activities. As well widely known e-commerce transaction is dependent on quality availability of internet access both at home and that the workplace. This may be a challenge for areas with less internet connectivity. The constraints at this stage could be technical, educational, financial, and spatial in form (Visser & Lanzendorf, 2004; Wang, Yu, & Jin, 2019). Issues of security in payment over the virtual environment are a type of technical constraint. In addition, without adequate education (literacy) among the people, the ability of users to operate e-commerce equipment and services will be a major challenge. Also, the financial constraints in e-commerce are associated with buying and maintaining equipment (e.g. anti-virus software), cost of internet subscription and access, and payment of yearly fees and income for the acquisition of credit card systems (Khosla & Kumar, 2017; Visser & Lanzendorf, 2004). The spatial constraints have to do with the availability

and quality of virtual infrastructure and education (Visser & Lanzendorf, 2004). For instance, age can be a constraint when it comes to the adoption of e-commerce activities, especially between the younger and older generation. Younger ones are more active as compared to the aged ones when it comes to interaction through the internet.

The second set of constraints concerns the economic perspective in terms of the kind of product provided on the internet amid the potential of e-commerce to reduce transactional cost (Mangiaracina et al., 2019; Visser & Lanzendorf, 2004). The idea is that e-commerce transactions (B2C) empower both the buyer and seller to undertake business transactions more effectively and efficiently resulting in better outcomes at the lowest cost (Giuffrida et al., 2017; Mangiaracina et al., 2019; Visser & Lanzendorf, 2004).

## 2.2 Social Commerce

Social commerce is viewed as a sub-domain of e-commerce. The popularity of social commerce can be attributed to the constant rise in Facebook and other social media systems which are making people spend more time interacting on social media (Linda, 2010; Salvatori & Marcantoni, 2015). It can be distilled into two components such as social media and commercial activities (Liang, Ho, Li, & Turban, 2011; Zaglia, 2013). Social commerce is defined as an internet-powered social media that drives people/users to engage in the selling and marketing of products and services in virtual society/community and market areas (Lin, Li, & Wang, 2017; Stephen & Toubia, 2010). It can also be explained as the promotion and execution of e-commerce transactions via social media and web 2.0 software (Han, Xu, & Chen, 2018; Sivaji, Downe, Mazlan, Soo, & Abdullah, 2011). Social commerce developed via two dimensions of mass communication that ensures that sharing of products or information is communicated directly between the mass media and the consumers and the word of mouth communication enabled between consumers (Ho-Jung & Cho, 2016; Yahia, Al-Neama, & Kerbache, 2018). Two kinds of social commerce have been projected: a) social networking sites that incorporate commercial features to allow transactions and advertisements and b) traditional e-commerce websites that add social tools to facilitate social interaction and sharing (Huang & Benyoucef, 2013; Lin et al., 2017).

The phenomenon of social media in e-commerce provides the foundation for empowering both

businesses and consumers. For firms and businesses, they can acquire more profit through good recommendations by clients or consumers of its brand or services which attract new consumers to the company (Lin, Wang, & Hajli, 2019; Schaupp & Bélanger, 2019). On the other hand, consumers are enriched with sufficient and succinct knowledge and expertise to make informed decisions about products and services (Chen & Shen, 2015; Kim & Park, 2013).

Some characteristics of social commerce (web 2.0) (Linda, 2010) are:

- **Harnessing collective intelligence:** it provides a competitive advantage of social commerce systems (web 2.0) due to the presence of huge sellers and buyers.
- **Architecture participation:** based on social commerce web computing technology, it makes use of algorithmic data management and customer-self entered services that can spread through the whole internet.
- **Viral marketing:** Social commerce through web 2.0 is depends on word-of-mouth marketing interaction. This empowers consumers to advocate and promote their services/products through the sharing of their experience with such services. This can form a form of lasting (longer) consumer relationship and deeper attraction.
- **Market disruption:** Social commerce via web 2.0 creates a difference in reaching out to consumers and business clients alike and thus can contribute to businesses to generate more profits.

Based on the huge reliance of social commerce on friends/family/acquaintances recommendations, the issue of trust is very vital. Thus a synergy effect is developed through the combination of mobile-based interactivity like smartphones and social media and hear-say (Ho-Jung & Cho, 2016; Yahia et al., 2018). The success of social commerce is thus dependent on factors such as credibility, product power, brand awareness, number of members, and contents (Chang & Li, 2019; Ho-Jung & Cho, 2016). It is a business concept/model that cannot survive without an adequate component of trust and credibility (Ho-Jung & Cho, 2016; Sharma, Menard, & Mutchler, 2019).

### 2.3 Second Section Information Technology Adoption Theories

There are several information systems adoption models and theories are used to explain the factors driving the use of information technology systems. The many models are vital since no single can provide all the elements that can drive the understanding of

enabling the adoption of innovation systems (Gangwar, Date, & Raoot, 2014; Straub, 2009). Some of these theories/models are The technology acceptance model (TAM) (Davis, 1989; Davis, Bagozzi, & Warshaw, 1989), theory of planned behavior (TPB) (Ajzen, 1991), Diffusion of innovation (DOI) (Rogers, 2003), unified theory of acceptance and use of technology (UTAUT) (Venkatesh, Morris, Davis, & Davis, 2003), Theory of Reason Action (TRA) (Fishbein & Ajzen, 1977) and the Technology, Organizational and Environment (TOE) (Tornatzky, Fleischer, & Chakrabarti, 1990).

The various technology adoption models and their major constructs are represented in the figures below:

#### 2.3.1 Diffusion of Innovation (DOI)

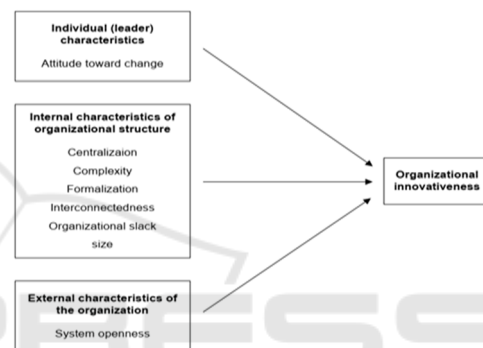


Figure 2: Diffusion of Innovation (DOI).

#### 2.3.2 Technology Acceptance Model (TAM)

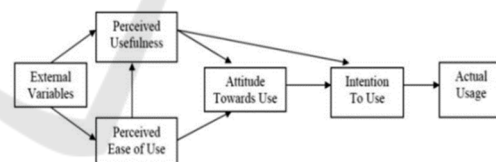


Figure 3: Technology Acceptance Model (TAM).

#### 2.3.3 Theory of Reason Action (TRA)

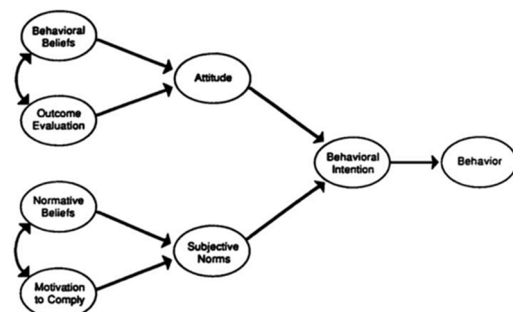


Figure 4: Theory of Reason Action (Fishbein & Ajzen, 1977).

### 2.3.4 Technology, Organizational, and Environment (TOE)



Figure 5: TOE framework.

### 2.3.5 Theory of Planned Behavior (TPB)

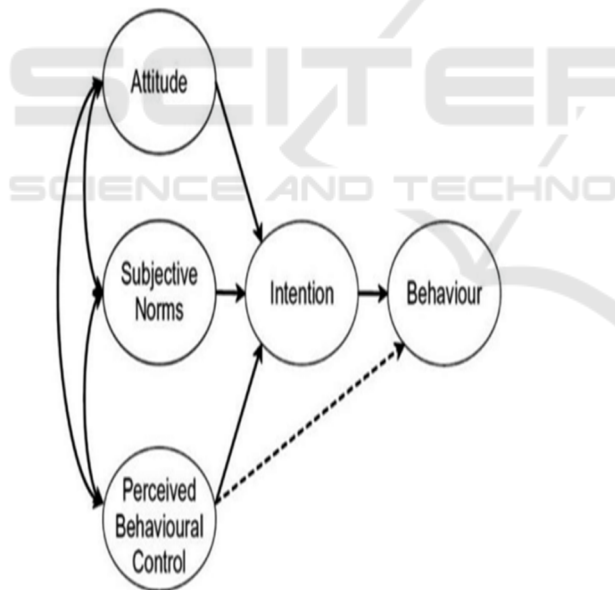


Figure 6: Theory of Planned Behavior (Ajzen & Fishbein, 1980).

### 2.3.6 UTAUT

Equations should be placed on a separate line, numbered and centered. An extra line space should a table with two columns is advisable.

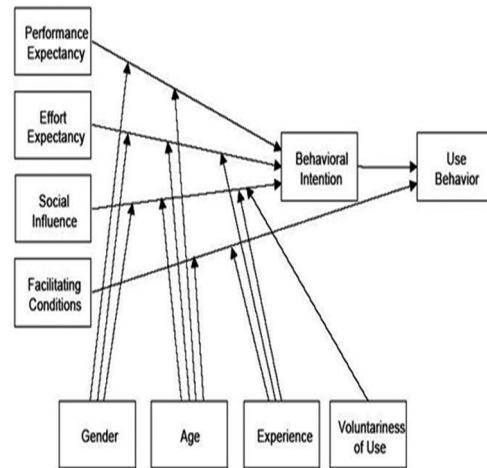


Figure 7: UTAUT (Venkatesh et al., 2003).

These theories have been applied in various contexts to provide useful illustrations of drivers for the use of information technology systems. It has been applied in areas such as e-commerce (Chandra & Kumar, 2018; Ocloo, Xuhua, Akaba, Shi, & Worwui-Brown, 2020), social commerce (Handarkho, 2020; Sarker, Hughes, & Dwivedi, 2020; Williams, 2021), e-learning/education (Al-Emran & Teo, 2020; Al Kurdi, Alshurideh, & Salloum, 2020), e-tourism (Loc, Tuan, Dat, & Liem, 2020; Vila, González, Vila, & Brea, 2021), social media (Al-Qaysi, Mohamad-Nordin, & Al-Emran, 2020; Salloum, AlAhbabi, Habes, Aburayya, & Akour, 2021), marketing (Misganaw & Singh, 2020; Mooya & Phiri, 2021) and mobile banking (Ho, Wu, Lee, & Pham, 2020; Owusu, Bekoe, Addo-Yobo, & Otioku, 2021). These studies cited above do demonstrate that these theories and models are still relevant especially in the context of providing policymakers and practitioners with the needed guidelines to regulate and promote the adoption of new forms of technology innovations.

## 3 RECENT E-COMMERCE AND SOCIAL COMMERCE ADOPTION STUDIES

In a study that sought to determine the dividends that farmers get from e-commerce adoption in the context of China, it was revealed that e-commerce adopters had higher incomes than non-adopters (X. Li, Guo, Jin, Ma, & Zeng, 2021). The large income was attributed to increasing sales volumes (X. Li et al., 2021). Another study that analyzed the influence

of market orientation with e-commerce adoption towards SMES's business performance found out that there was a significant interaction between entrepreneurial orientation, market orientation, and e-commerce adoption (Octavia, Indrawijaya, Sriayudha, & Hasbullah, 2020). In efforts to understand the extent of vegetable e-commerce adoption, it was discovered that factors such as usefulness perception, logistics service quality, and nearest vegetable market distance had a direct influence on the willingness behavior towards vegetable e-commerce adoption (B. Li et al., 2020).

In terms of social commerce studies, a study demonstrated that to purchase on social commerce is driven by trust in sharing commerce system and perceived privacy risk while trust in sharing commerce system influence perceived privacy risk (Bugshan & Attar, 2020). Additionally, social commerce information sharing activities influenced both trusts in sharing commerce systems and perceived privacy risk (Bugshan & Attar, 2020). Furthermore, in Saudi Arabia, research results from 181 SMEs showed that trading partners' pressure in the environmental context, top management support in the organizational context, and perceived usefulness in the technological context had a direct significant impact on the behavioral adoption of social commerce (Abed, 2020). Investigating the factors influencing the repurchase and word-of-mouth intentions on social commerce, Meilatinova (2021) showed that repurchase and WOM intentions are positively influenced by trust and satisfaction while trust and satisfaction are affected positively by repurchase and information quality.

#### 4 DISCUSSIONS AND CONCLUSIONS

E-commerce has taken a new dimension due to the innovations in social media that empower users to purchase through social commerce. Social commerce has widened and expanded the nature of trading and transactions that is undertaken in the traditional concept of e-commerce. It has given people more tools that enable the fulfillment of individual and co-operate goals. Government and policymakers must create a congenial environment for e-commerce through social commerce for it to be successful. The needed infrastructures and systems should be put in place to facilitate the growth and expansion of social commerce. Reduce the cost of mobile handsets, reduced cost of mobile

broadband/internet connection, higher/faster internet connection, and mobile technology infrastructure are some of the basic infrastructures required for social commerce to flourish. In addition, the promulgation of policy regulations to regulate the nature of business transactions that occurs on social commerce systems can help protect both the consumer and merchant in case of a dispute. It is important to stress that e-commerce cannot work properly with the full backing of the government and its relevant agencies and department.

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