

NOVEL RESEARCH FRAMEWORK FOR SOCIAL COMMERCE PURCHASE INTENTIONS

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ABSTRACT

The absence of social aspects and human presence is conceived as being one of the key drawbacks that impede the future development of e-commerce. The development of social commerce may help overcome this weakness. Social commerce is viewed as a subset of e-commerce that integrates both social and commercial activities by utilising social technologies into e-commerce websites. Social commerce participates significantly in re-introducing the social side of purchasing to e-commerce by enhancing the social presence in the online environment. Based on the role of social technologies and Social Presence Theory (SPT), this study describes the nature of the social side in social commerce by proposing a theoretical framework that incorporates a multidimensional conceptualisation of social presence. The impact of this conceptualisation on building trusting beliefs and subsequent intentions to purchase is then explored. The proposed model suggests that trust is a key driver of social commerce. Furthermore, social presence factors rooted in social technologies participate effectively in the formation of trustworthy relationships between consumers and sellers. While the proposed research model has not been empirically tested, it reveals new insights into social commerce research, and has several practical and theoretical implications.

Keywords: *Commis Social commerce, Social technology, Web 2.0, Social presence, Perceived trust.*

1. INTRODUCTION

One of the remarkable differences between offline and online shopping environments that impedes the development of e-commerce is the low level of human and social presence in the online environment [1]. This aspect of the online environment is frequently viewed as being one of the key downsides of e-commerce. It has been claimed that the absence of social and human elements in the online environment reduces social cues, enforces additional forms of risk, and subsequently prevents the building of a reliable atmosphere [56]. However, this condition has been significantly improved lately by incorporating the capabilities of Web 2.0 into e-commerce websites. This has led to the emergence of a phenomenon commonly referred to as social commerce [75]. Web 2.0 technologies and innovative design features incorporated in social media, such as comments, reciprocity applications, social proof and recommendation lists, boost customers' participation, and enables them to gather socially substantial information. This has consequently

resulted in a more sociable and reliable online transaction environment [39].

In online business, social commerce is the most recent advancement in terms of the innovation of information and communication technology [48]. Although the evolution of social commerce is relatively new, it has developed rapidly in practice [4]. The rapid growth of social commerce relates primarily to the popularity of social media technologies which inspire individuals to be part of a social community and facilitate peers' interaction [51]. Consequently, this has introduced new opportunities for organisations to utilise the various platforms of social networking for supporting their business, a process labelled as social commerce. According to Chen [8], social commerce fosters online transactions assisted by individuals on social networking websites who communicate, share opinions and recommendations, and rate their experience about the different products and services they use. Despite these affirmative features and the fact that the positive impact has been broadly acknowledged, the social aspects of e-commerce

have not been fully recognised and understood, nor their influences on purchasing decisions.

Therefore, this study utilises the Social Presence Theory (SPT) put forward by Short et al. [76] as a theoretical foundation for understanding and exploring how the features of social shopping impact on online social commerce environments. To accurately consider the different aspects of social commerce, previous studies [74] [56] [48] are employed in this study to conceptualise social presence as a multi-dimensional concept. The influence of the multi-dimensional conceptualisation of social presence on buyers' intentions to purchase is then investigated in the proposed research model by positioning perceived trust with regard to sellers as the main mediating variable. Consequently, this research attempts to produce various potential contributions.

Primarily, the study aims at conceptualising the multi-dimensional construct of social presence in the context of social commerce, and therefore to tackle the drawbacks of the unidirectional conceptualisation of social presence in the extant literature. Achieving this discloses the nature of social aspect in the context of social commerce by utilising SPT, resulting in a set of social factors that influence the perceived trust in sellers, and subsequently buyers' intentions to purchase. In doing so this study takes into account the impact of both structural and social factors, which in turn provides a comprehensive understanding of buyers' online purchasing behaviour. Collectively, this study highlights the significance of social aspect on buyers' online purchasing behaviour, suggesting the need for additional attention being paid to this key research field of e-commerce in the future. Thus, this study seeks to answer the following question: what are the main dimensions that form the concept of social presence in the context of social commerce marketplace?, and how these dimensions affect customers' trust in the context of social commerce marketplace?

2. SOCIAL COMMERCE AND THE SOCIAL ASPECT OF ONLINE PURCHASING

In recent years, the popularity of social technologies and the increased adoption of social networking platforms such as social networks, social media and Web 2.0, has created a wide set of opportunities and tools for online commerce [48]. There is no unified definition of social commerce as the literature offers only a wide set of definitions. Social commerce refers to the

utilisation of social media platforms to deliver the transactions and activities of e-commerce [56]. Stephen and Toubia [78] (p.2015) point out that social commerce is "...the forms of Internet-based social media that allow people to actively participate in the marketing and selling of products and services in online marketplaces and communities". Liang and Turban [51] (p.5) explain that social commerce is a form of e-commerce that "...involves using Web 2.0 social media technologies to support online interactions and user contributions to assist in the acquisition of products and services". Social commerce is considered a subset of e-commerce, intermediated by social media including both online and offline environments [85]. According to Hajli [32], social commerce is conceived as the most recent development of e-commerce that uses social media technologies to facilitate buyers' interactions and allows them to create active content (i.e. experiences, recommendations, reviews) that can guide others in their decision making with respect to the purchase of a product or service.

Several traditional e-commerce websites (e.g. eBay and Amazon) have greatly incorporated social content and applications to help buyers to communicate where they frequently buy. Essentially, social commerce is a mixture of social and commercial activities [51], and it possesses three main features in the form of social technologies, community interactions and commercial activities. Accordingly, social commerce is viewed as a subset of e-commerce that engages social technologies to support the transactions and activities of e-commerce [88].

Generally speaking, shopping is considered as a social activity. Godes et al. [26] point out that buyers are susceptible to being impacted by their social relationships with others when deciding to make a purchase. In the context of e-commerce, one of the key differences between traditional commerce and e-commerce is that e-commerce websites lack the human warmth and sociability associated with face-to-face shopping experiences [73]. Online shopping through e-commerce websites is essentially geared to reduce buyers' cognitive load, and is regarded as anonymous, computerised and impersonal compared with physical (face-to-face) commerce. Furthermore, it has been argued that bare-bone e-commerce websites that support only the transactional aspects of online shopping (e.g. guaranteeing credit card and escrow services) are viewed as information-lean [19] [62]. This may refer to the fact that e-commerce particularly

emphasises increasing efficiency and the one-way interaction between the system and users [39].

In the past, initiating and managing the social interaction with buyers was unfeasible or very costly [10]. However, social online purchasing has become a more social experience because social technologies have reintroduced the social aspect to the process of online purchasing. Social technologies have increased businesses' ability to initiate and manage social interaction with their buyers in manageable and inexpensive manners. Wang and Zhang [85] point out that while the main objective of e-business is to concentrate on business objectives, social commerce is primarily geared toward social goals such as information sharing and networking, with secondary attention being paid to shopping. With social commerce, online buyers can access social experiences and knowledge to guide them when it comes to better understanding and more informed decisions with respect to their online purchases.

3. CONCEPTUALISING A MULTI-DIMENSIONAL CONSTRUCT OF SOCIAL PRESENCE

The concept of social presence fundamentally stems from the Social Presence Theory (SPT) of Short et al. [76]. SPT aims to explain the capacity of a communication medium to convey social cues. SPT suggests that communication becomes more effective when the communication medium acquires a suitable degree of social presence that matches the degree of interpersonal participation essential for performing the task (Fulk et al., 1987). Initially, Short et al. [76] (p.65) defined social presence as "...a quality of the communication medium that is central to understanding person-to-person communication. Hess et al. [38] (p.891) explain that social presence is viewed as "...a way to characterise a user's subjective experience with a communication medium based on how closely the medium emulates face-to-face interaction". From a psychological perspective, social presence is narrowly related to intimacy and psychological closeness. In this perspective, Gefen and Straub [23] (p.11) refer to social presence as "...the extent to which a medium allows users to experience others as being psychologically present". Social presence represents the degree to which a communication medium facilitates an individual's awareness of others, with the social interaction taking place over a communication medium. Lu et al. [56] (p.226) likewise pose the view that social

presence is often weighted by "...the perceived warmth, conveying a feeling of human contact, sociability, and sensitivity embodied in a medium". While face-to-face communication is regarded as the highest communication medium in terms of conveying social presence, computer-mediated-communications have lesser levels of social presence because of their limited capacity to deliver social cues such as sounds, gestures and facial expressions [38].

According to Gefen and Straub [23], in the context of online shopping, social presence is closely associated with information richness. Social presence allows users to access rich information, social knowledge and experiences that help them to make more informed and accurate buying decisions. Previous studies indicate that the absence of social presence may hinder the progression of online shopping due to the lack of human interaction and subsequently trust [5] [44].

Despite the fact that several studies have investigated the impact of social presence on buyers' purchasing behaviour, Lu et al. [56] argue that the majority of previous e-commerce research has employed a unidimensional model of social presence, aiming at the ability of a website to transmit a sense of human sociability and warmth. However, treating social presence as a unidimensional concept may not be sufficient for virtual and online communities, where individuals not only interact with computers, but also need to communicate with other individuals and engage effectively with virtual communities. The utilisation of a unidimensional conceptualization of social presence overgeneralises the effects of IT artefacts in the context of social commerce. While several IT artefacts are able to deliver a sense of social presence, it may be inaccurate to conclude that their impact on social presence is equal. IT artefacts are different when it comes to delivering a sense of social presence. For instance, 3D avatars are considered affective laden, whereas a computer-synthesized voice is viewed as cognitive laden. Thus, the sense of "being with another" stimulated by interaction with a 3D avatar is different from the feeling one receives when interacting with a computer-synthesized voice. Hence, the conceptualising a multi-dimensional concept of social presence makes it possible to distinguish the effects of IT artefacts on the various dimensions of social presence, which in turn will help designers to select suitable IT artefacts for a desired social presence. Therefore, conceptualising a multidimensional concept of social presence is deemed to be a necessity.

Shen and Khalifa [74] suggest a three-dimensional construct of social presence incorporating cognitive, affective and awareness social presence. Furthermore, in the context of online learning environments, Tu ([83] proposes three dimensions of social presence in the form of interactivity, online communication and social context. Similarly, Caspi and Blau [6] point out that online learning communities have different dimensions of social presence including social identification, the perceived subjective quality of a communication medium, and self-projection onto a community. Subsequently, as previous studies [39] [87] have considered social commerce as a combination of community and commercial activities, a multidimensional conceptualisation of social presence in the context of social commerce is advocated. As a consequence, this study suggests three dimensions of social presence, namely the social presence of the web, the social presence of interaction with sellers, and the social presence of others.

3.1 Social Presence of the Web

Previous research has noted that social cues delivered by technology have a significant influence on how users adopt and interact with the technology [38]. Users are responding to technology in a social manner that generates perceptions of social presence similar to those that would be generated from face-to-face interaction, and exhibits humanlike cues. In essence, e-commerce is an information system where buyers perform transactions online through interaction with a website. According to Zavlou et al. [89], and Kumar and Benbasat [46], these interactions between buyers and websites can be considered as being akin to interpersonal interactions only if websites are recognised as social actors.

Social presence has been considered as a key aspect when it comes to designing a website interface as researchers have focused their efforts on exploring how media can be utilised to solve the problem of physical distance and the absence of human assistance [38]. The social presence of the web is referred to as the ability of a website to deliver a sense of sociability and human warmth [37]. The social presence of the web is viewed as the most commonly embraced perspective in previous e-commerce research as it reflects the inherited subjective quality of a [56]. Direct interaction between humans is not facilitated by most websites. However, this does not indicate that a website cannot provide social presence [24]. Websites incorporating rich text, high quality

picture content and multimedia content can significantly offer the means for sensitive, sociable and personal human contact. For instance, text-to-speech technology [69], recommendation agents [81], and 3D videos/avatar [49] also help to increase buyers' perceptions of social presence by simulating a sense of interacting with others. Likewise, Shen [73] suggests that an increased sense of social presence on e-commerce websites can be achieved by offering the means for real interaction with other humans, or through simulating the imagination of interaction with other humans (e.g. human video and audio). Furthermore, the existence of social networking (e.g. online blogs, Facebook, Twitter), and buyers' reviews, ratings and recommendations in e-commerce websites are also factors that boost a website's social presence and convey human warmth [81].

3.2 Social Presence of Interaction with Seller

Effective communication is regarded to be the key to the establishment of successful online relations between sellers and buyers. According to Ou et al. [66] (p.6), effective communication can significantly lead to mutual understanding, which is defined as "...buyers and sellers' appreciation of each other's need". Sellers in traditional e-commerce situations occasionally participate in direct communication and interaction with buyers. Hence, interaction with sellers in an online environment is considered one of the key dimensions of social presence [56] [6]. A traditional e-commerce environment can employ online chat tools to make direct interaction between buyers and sellers possible. For example, message boards and customer support chat can be used as effective channels for customer service, communication, marketing and sales.

Hassanein and Head [36] argue that social presence is often achieved through imaginary interactions made automatically by the interface of a website. However, in the context of social commerce, computer-mediated-communication (CMC) technologies can improve communication and interaction between interlocutors, and thus establish strong social relationships [38]. Song et al. [77] suggest that the use of CMC tools can significantly increase the degree of social presence, and subsequently strengthen buyers' favourability and loyalty toward a particular website, and also increases buyers' perception of that website's quality. Ou et al. [66] state that the use of CMC technologies such as social media tools (e.g. message boxes, instant messengers), enables

repeated transactions with the seller by constructing a fast and solid online relationship. This was also confirmed by Kaplan and Haenlein [43] who found that social media tools can be utilised to build effective online interpersonal connections between buyers and sellers. With social media tools, buyers can easily communicate with sellers and acquire the information necessary to commit to an online purchase. Additionally, such tools are vital when it comes to enhancing an online seller's presence. This is referred to by Lowry et al. [54] as the perceived satisfaction associated with being close to another person(s), regardless of the constraints of time and location.

3.3 Social Presence of Others

The social presence of others is similar to the concept of "perception of other" proposed by Caspi and Blau [6], and is also akin to the concept of awareness suggested by Shen and Khalifa [74] (p.3) who defined it as "...the extent to which other social actors appear to exist and react to the users". Users in online environments communicate mainly via a keyboard, and thus lessen both the extensiveness and intensity of sensory interaction. However, the social presence of others in online environments is likely realised through user status updates (e.g. where is she/he, online or offline), and also through features of self-presentation such as images and photos. Additionally, continuous involvement in online chat and discussion in the form of posting results is increasing the awareness of others.

Moreover, social media tools have significantly increased social appeal by facilitating information sharing and collaboration among buyers in online environments [43]. The design features of social media platforms (i.e. referral and rating) motivate buyers to share their online purchasing experiences and product information with other buyers who are interested in the same type of product in a social commerce environment [52]. Providing observational learning information which provides discrete signals conveyed by the activities of other buyers (e.g. wish lists, adoption percentages, "like" and "share" options on Facebook), will make buyers aware of other buyers and their actions [10]. Subsequently, the behaviour of sharing information improves buyers' interactions and creates a greater sense of social presence and therefore knowledge, in a social commerce environment.

Social platforms are effective social resources for commercial related information and for the provision of relevant information and

evaluation of products, thereby enhancing buyers' decisions to purchase [27]. According to Hajli et al. [34], the Web 2.0 features of social platforms have effectively changed buyers' perceptions and experience when it comes to online shopping. The nature of features such as reviews, rating, forums, recommendations, communities and referrals are inherently different from the traditional environment of e-commerce [39]. These features have re-introduced the social aspects of shopping websites as they greatly convey a sense of human warmth and sociability. With these features buyers can easily share online reviews about specific products, and can also obtain information about other buyers' experience with regard to particular products. Moreover, these features allow buyers to engage in intense discussion when it comes to exchanging commercial-related information, opinions and beliefs with regard to products, sellers, services and brands, which in turn increases their confidence and knowledge, and consequently their willingness to buy [35].

4. TRUST AND SOCIAL COMMERCE

Trust is a fundamental component in commercial transactions and thus it has received a significant amount of attention in the extant literature associated with both e-commerce and social commerce [33]. According to Lal [48] and Wandoko et al. [84], trust is the foundation of successful long-term relationships, especially in online contexts where trust is important due to the considerable levels of uncertainty and risk associated with digital environments. High trust reduces the uncertainty of online environments, and therefore encourages buyers to engage in online transactions [17]. While a social environment cannot be governed by regulations and rules, individuals are more likely to adopt trust as a way of decreasing social complexity [56]. Such a situation is true for online transactions where effective regulations to control the opportunistic behaviour of online vendors are absent. Therefore, trust is viewed as the basis of e-commerce, and the most decisive aspect in terms of successful e-commerce and subsequently social commerce [53].

Trust has been comprehensively investigated in previous e-commerce research with regard to examining its influence on buyers' intentions to make online purchases [63] [42] [12] [14]. Additionally, previous e-commerce studies were aimed at identifying the main antecedents of trust or at developing trust building mechanisms [7] [45] [8] [84]. However, these studies have paid

particular attention to the influences of institutional structures (e.g. assurance, quality, normality), and functionality (e.g. usability, usefulness, ease of use), focusing narrowly on social factors [56] with the exception of the social presence of website interfaces (e.g., [72] [37] [73]). Indeed, trust is developed through individuals' interactions and the surrounding environment. Sharma et al. [72] state that trust develops when trustworthy interactions occur between two parties. Consequently, social context is deemed to be a necessary but overlooked feature of trust in the previous literature.

In recent years, while social commerce has witnessed a dramatic growth worldwide, such growth has been subjected to many transaction-related issues such as a lack of or wrong delivery (Kim and Park, 2013). Trust is viewed as being an essential factor in social commerce since face-to-face transactions are the main method of communication between buyers and sellers who are geographically dispersed. Simultaneously, buyers lack direct experience with regard to products as they cannot feel or touch them. Such circumstances result in high levels of risk and uncertainty [18]. Moreover, payment guarantees may be absent during online transactions [3]. Furthermore, it has been reported that several issues related to online purchase, such as incorrect products being received, product quality, and no, late or wrong delivery, inhibits buyers from purchasing online [80]. Thus, buyers' trust has become a key success factor for social commerce businesses, forcing such businesses to strive to develop trust. The literature has demonstrated that the need for trust in online environments results in trust-related outcomes. For instance, trust has been found to be a significant factor that influences buyers' intentions when it comes to making online transactions [25], their decision to make actual online transactions [40] and their repurchasing intentions [19].

Trust has been defined in a number of different ways in the literature. For instance, Ng [64] (p. 712) defines trust as "...the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party". Ou et al. [65] [66] point out that trust is "...the extent to which a buyer perceives a seller's ability, integrity and benevolence".

Trust is viewed as a multifaceted and complex concept [56]. Consequently, trust often has various conceptualisations in the literature. Mcknight et al. [60] propose four broad forms of trust: institution-based trust, trusting beliefs,

disposition to trust, and trusting intentions. Similarly, Hess et al. [38] adopt the same conceptualisation. However, they further conceptualise trusting beliefs into three categories: ability, integrity and benevolence. Additionally, Lu et al. [55] and Lu et al. [56] propose two categories of buyers' trust: marketplace and sellers resides in the marketplace. In line with these studies, this study suggests that trust in the seller is the main construct of trust. The trust in the seller construct in this study is conceptualised as being a second-order construct. The trust in the seller construct consists of three sub-categories: the seller's ability, integrity and benevolence. According to Ou et al. [66], the seller's ability refers to the characteristics, competencies and skills of the seller's products online. Integrity is related to the seller's capability to adhere to a set of disciplines and principles that are acceptable to the buyer, whereas benevolence represents the seller's tendency in general to help and support the buyer.

5. RESEARCH MODEL AND HYPOTHESES

The proposed model is presented in Figure 1. According to Kumar and Benbasat [46], sellers in the social commerce marketplace can reduce the automated, anonymous and impersonal nature of online purchasing by making their online stores socially rich. A social presence is expected to develop buyers' trust in sellers. The research model suggests that the above-discussed social presence dimensions have a positive impact on trust in sellers, and subsequently will positively shape the intention to purchase. Additionally, the model suggests that trust in the marketplace has a positive influence on both trust in sellers and on intention to purchase. All the hypotheses are presented and explained thoroughly in the following sections.

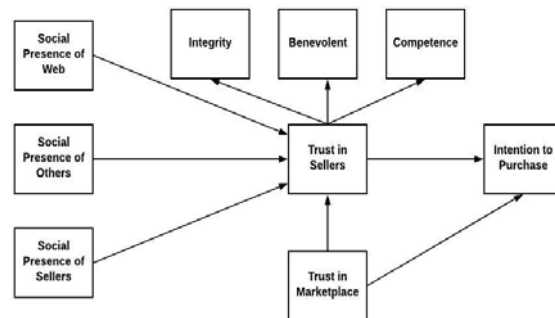


Figure 1: The Proposed Research Model

5.1 Trust in Online Sellers and Social Presence of the Web

In essence, e-commerce is an information system where buyers perform transactions online through interaction with a website. According to Zavlou et al. [89] and Kumar and Benbasat [46], these interactions between buyers and websites can be considered akin to interpersonal interactions only if the websites are recognised as social actors. Therefore, while human interactions are considered to be a prerequisite of trust, the interaction between buyers and the website should play a significant part in building trust online [56]. It has been argued that a great social presence on the part of a website delivers richer information and more social cues, and subsequently such websites are seen to be transparent. High levels of transparency in online environments result in inhibiting untrustworthy behaviours. Zavlou et al. [89] assert that the social presence of a website decreases the perception of social distance between buyers and sellers. They also point out that the formation of trustworthy relationships becomes easier when perceived social distance is lessened. Accordingly, the social presence of websites increases buyer trust in online sellers. Previous studies have confirmed the positive impact of websites' social presence on trust (Hussanein et al., 2009; [56]. Hence, the social presence on online sellers' websites will make online sellers more trustworthy and buyers more trusting. Thus, the following hypothesis is suggested:

H1: Trust in online sellers will be positively influenced by the social presence of the website.

5.2 Trust in Online Sellers and the Social Presence of Others

Research in social psychology points out that humans can be influenced and can learn from the experience and knowledge of individuals whom they know and trust [58]. According to Cialdini [15], the act of persuasion can be significantly effective when it is committed by similar others, even though if they are strangers. Likewise, marketing research also indicates that buyers' behaviours, attitude and beliefs are likely to be impacted by their social interactions with others when they make decisions with regard to purchasing [26].

It has been argued that buyers face difficulties when it comes to validating the information provided by online sellers. Nonetheless, buyers seek advice and assistance from online communities and from other buyers whom they trust to offer accurate information with

regard to their experiences of purchasing products and services online [48]. Buyers are unsure about the trustworthiness of online sellers, and subsequently depend on sellers' reputations and ratings to build their trust [28]. This is especially the case when online buyers are forced to decide which seller to buy from when there are many sellers offering the same product. Cialdini [15] points out that when shopping online, buyers tend to depend on and trust their peers who have previous experience of visiting the same website by looking for indirect cues. In such a case, besides other buyers' interactions with the particular website, they are also able to feel the presence of other buyers by several cues that exist in social applications such as popularity lists, buyers' reviews (electronic word-of-mouth or e-WOM) and transactional and pick lists. Additionally, social proof, which is a kind of social application aimed at resolving customers' uncertainty about their shopping decisions (e.g. the option of "customers who bought this also bought..."), will provide buyers with an indication of the presence of other buyers and their shopping interests. A study carried out by Guo et al. [28] reveals that information passing between buyers is one of the key drivers of online purchasing.

In an e-commerce context, trust is constructed based on buyers' transaction experiences [24]. On the other hand, since social commerce emphasises the content contributions of the social interactions of a community [78], trust in social commerce is built on the previous experiences of buyers in the interactive communities associated with social commerce websites [13]. According to Liang et al. [52], many buyers join retailers' social commerce websites to collect more information to inform their purchasing decisions. Social commerce websites in this case act as a community whereby buyers with similar interests in specific brands and products can exchange and share information [16]. In such an environment, buyers' trust in social commerce is directed by community and information attributes. The key feature of social commerce websites is that they provide promotional information to buyers. Such information enables buyers to acquire an enhanced assessment of the trustworthiness of the social commerce websites under consideration [13]. As such, the quality of information (e.g. objectivity, accuracy and reliability) provided by a social commerce website is viewed as the main driver of buyers' trust.

Social commerce has several constructs. According to Lai and Turban [47], these constructs

include reviews and ratings, social advertising, social media, social shopping, referrals and recommendations, and communities and forums. Businesses use these platforms with customers and to allow customers to communicate with each other. Amblee and Bui [2] point out that the significance of social technologies can be conceived in terms of how online sellers now have more opportunities to interact with customers. Such social interactions provide consumers with the chance to acquire more knowledge, and therefore will increase their trust [57]. Social commerce, through Web 2.0 and social media technologies, enables consumers to give and share reviews, ratings, referrals and recommendations [31]. The community associated with a social networking site can reassure one another through exchanging information and sharing experiences, which in turn increase their confidence and subsequent willingness to purchase [35].

In social commerce, ratings and reviews are widely used by buyers. Accessing the reviews of others triggers an emotional side that attaches a personal aspect to the decision-making process associated with purchasing [30]. Additionally, Wang et al. [86] assert that feedback from reviews can significantly affect brand reputation. Consumers can use online recommendation systems, and these appear to have an important impact on buyers. Hajli [30] suggest that the quantity and quality of information from buyers in the form of reviews undoubtedly influences intentions to purchase. According to Lu et al. [56] and Pavlou and Dimoka [67], online rating and comment systems offer accurate information and insights about the reputation of sellers that are a potential help in the formation of building buyers' trust in sellers. Positive reviews and comments help buyers to develop positive beliefs with regard to online sellers.

Recommendation review systems or e-WOM can also effectively raise the perception of other buyers online. Gabbriellini and Santini [21] p.286 define e-WOM as "...passing of information from person to person, mediated through any electronic means". It is clear that e-WOM is more significant for decisions when it comes to purchasing than other marketing methods (e.g. advertisements) [9]. The influential role of e-WOM is accepted because of its various features such valence, solicitation, informed behaviour, intervention and timing before and after buying. Thus, e-WOM is considered by buyers to be more trustworthy and independent of sellers' influence. Cheng et al. [11] assert that e-WOM valence has a

substantial influence on the probability of a consumer buying a product or brand. E-WOM valence is inferred to be linked to buyers' experience with regard to a product or service. It specifies the accumulative percentage of previous buyers who hold negative or positive views. Exposure to positive or negative WOM (PWOM or NWOM) plays an informative role by enhancing the level of buyers' awareness [10].

If social cues show positive signals (e.g. PWOM with significant number of buyers purchasing a product or wishing to purchase it) then buyers are confident in the seller's integrity, benevolence and ability to offer a good service [56]. Furthermore, marketing research also demonstrates that when buyers are publicly observing previous buyers' purchase actions, their purchasing behaviours and beliefs are shaped based on such observed information rather than on their own private information [10]. Thus, buyers are more likely to follow their online predecessors and participate in a kind of "group behaviour". Subsequently, the following hypothesis is proposed:

H2: Trust in online sellers will be positively influenced by the perception of others.

5.3 Trust in Online Sellers and the Social Presence of Interaction with Sellers

As described previously, the main focus of social commerce is to offer buyers information that supports their purchasing decisions. Effective seller-buyer interaction is recognised as an important factor in terms of revealing social information that is essential in forming buyers' trust [56]. Beside sellers' ratings and reputation, buyer-seller trust in online marketplaces is significantly influenced by messaging activities between sellers and buyers [28]. Furthermore, social media features that facilitate social interactions among buyers and sellers have been found to increase trust, and thereby the intention to buy [30]. From the buyers' perspective, embedded online chat tools (e.g. CMC chat tools) in a website, along with other computer-mediated-interactions (e.g. teleconference and e-mails), make sellers friendlier, which in turn will untimely help to reduce the perceptions of distance between buyer and seller. Consequently, such tools are capable of delivering a sense of social presence [69]. Additionally, buyers are enabled to sense and feel the seller's integrity, benevolence and attitude by utilising these communication methods and subsequently developing beliefs and views with regard to sellers. Hence:

H3: Trust in online sellers will be positively influenced by the social presence of interaction with sellers.

5.4 Trust in Online Sellers and Trust in the Marketplace

Following the studies of Stewart [79] and McEvily et al. [59], trust in an entity can be obtained from other third entities acting as a source of proof. As such, trust can be transferred from the source of proof to the entities to be trusted. In an online context, it is expected that trust in the intermediary organisation that is operating and controlling the electronic marketplace (e.g. Amazon, eBay) can be transferred to the sellers in this marketplace [61]. An online marketplace is a formal set-up that manages the exchange network and offers several services and functions, including gathering sellers and buyers to facilitate the market by matching sellers and buyers and reducing costs. Yet, one of its key roles is to protect both sellers and buyers from the opportunistic behaviours of other parties and to build trust in sellers by being an “agent of trust” [68]. As an agent of trust, the institutional roles of the online marketplace include many formal mechanisms for controlling the market such as accreditation, guarantees, regulations, contracts, monitoring and reputation systems.

In short, it is widely acknowledged that the marketplace, in its institutional role as the guardian of trust operates as a source of proof for trust in sellers using the marketplace. The extant literature has demonstrated that the buyers’ intention to be involved in online transactions is increased as a result of trust in the marketplace [55] [56]. Accordingly, the following hypotheses are proposed:

H4: Trust in online sellers will be positively influenced by trust in the marketplace.

H5: Buyers’ intention to purchase will be positively influenced by trust in the marketplace.

5.5 Trust in Online Sellers and Intention to Purchase

In this study, intention to purchase refers to the buyers’ intention to perform a purchase from a seller that operates in a social commerce marketplace. Behavioural intention is viewed as the dominant factor that predicts behaviour. Accordingly, purchasing behaviour in this study is represented by the intention to purchase. When engaging in online transactions, buyers can’t interact face-to-face with sellers, and in turn uncertainty and social complexity are present all the

time due to sellers’ opportunistic behaviour and unpredictable actions [56]. General beliefs or feelings that lack proof cannot be regarded as equalling trust. Trust can only be achieved if buyers believe that sellers have the ability to offer and provide products of expected or better than expected quality as a consequence of the buyers’ online purchasing behaviour [50]. Thus, trust can be considered as a fundamental antecedent belief that makes positive signals in terms of transaction behaviour, and thereby generates transaction intentions [41]. Trust decreases the feelings of vulnerability and social complexity that buyers may encounter in an e-commerce situation by enabling buyers to subjectively control undesirable yet potential behaviours on the part of online sellers. As a result, trust helps buyers to deal with online sellers by lessening the perceived risk. Therefore, the development of trust encourages buyers to engage with online sellers in trust-related behaviours such as performing purchases and sharing information [60]. Hence the following hypothesis is suggested:

H6: Trust in online sellers will positively boost purchase intention.

6. RESEARCH METHODOLOGY

The suggested methodology for this study is structural equation modelling (SEM) of the data analysis. Scholars such as Gefen and Straub [22] and Hajli [31] argue that the SEM approach has several advantages over other methods such as multiple regression. Additionally, SEM is effective in terms of factor and path analysis, particularly when researchers are attempting to achieve reliable and valid research outcomes. According to Richter et al. [71], SEM is generally categorised into covariance-based SEM (CB-SEM) and partial least square SEM (PLS-SEM). Both procedures significantly differ in their statistical methods, and have different requirements and objectives. PLS-SEM was selected for this research for various reasons [29].

Specifically, in contrast to CB-SEM, PLS-SEM stresses exploration and prediction, is capable of handling multifaceted models and concurrently lessens the demands and requirements with regard to data and the specification of relationships [71]. Additionally, PLS-SEM is appropriate when it comes to explaining complex relationships or models, and is also better in terms of serving exploratory and predictive goals [70]. Moreover, Gefen and Straub [22] indicate that PLS-SEM is suitable for testing new models and theories as it

can be utilised for exploratory and confirmatory studies. Hence, given that this study is exploratory in nature, and also because it is designed to test a proposed model, it is believed that PLS-SEM is the most suitable method.

7. DISCUSSION, IMPLICATIONS AND LIMITATIONS

The proposed model suggests that all the three suggested constructs of social presence are viewed as salient antecedents of trust in seller. The three constructs jointly are expected to explain a significant amount of the variance in trust in seller. This highlights the important role of social atmosphere in establishing buyers' trusting beliefs in online sellers in SC marketplaces.

This study demonstrates that the multi-dimensional conceptualisation of social presence has a great impact on trust in sellers, and the consequent intention to purchase online on the part of buyers. Examining the effects of a unidirectional conceptualisation of social presence on trust in sellers fails to reveal the relative significance of other dimensions of social presence, which are possibly important when it comes to online purchasing. In social commerce websites, buyers are exposed to various IT artefacts that may concurrently influence their online experience and their consequent behaviours in various ways. Decisions regarding social commerce website design are about focusing on how to integrate various artefacts to produce the desired online interaction experience, rather than about concentrating on particular artefacts. Thus, there is an important need for a multi-dimensional conceptualisation of social presence which, in turn, will help in discerning the different impacts of IT artefacts on various dimensions of social presence. By doing so, designers will be able to design suitable IT artefacts that serve the different social presence dimensions.

Furthermore, the proposed model also highlights the importance of trust in the marketplace in the formation of trusting beliefs towards sellers. The variable "trust in the marketplace" is shown to have an important impact in reassuring buyers in a social commerce situation. Specifically, its influences are deemed to be significant to buyers in terms of trust in sellers and their intention to purchase. This study distinguishes between the institution-based trust (trust in marketplace) and individual-level trust (trust in seller). This separation reflects the nature of relationship in online environment where buyers

need to trust both sellers and marketplace prior to make a purchase decision. Therefore, two forms of relationships exist in an online marketplace: the dual buyer-seller relationship represented by the construct of "trust in seller" and the buyer-institution relationship represented by construct of "trust in marketplace".

Several implications can be drawn from the proposed model. First, the results confirm that perceived social presences delivered by the utilisation of social technologies can increase buyers' trust in sellers, which is an important antecedent of online purchasing. Hence, the combination of e-commerce applications with social technologies is effective. Second, the research model proposes that the social presences delivered by a web interface, and by the interaction with sellers, can effectively increase buyers' trust in sellers. Thus, online sellers should invest in building and sustaining these two important social presence channels with buyers. Third, the research model proposes that the perception of other buyers has a key role to play in developing trust in online sellers. Accordingly, online platform administrators should consider revealing only important information regarding those who have actually bought and who have useful information in terms of shaping buyers' trust. Although the proposed model offers significant theoretical and practical insights, its constructs and proposed relationships need to be empirically tested. Furthermore, additional variables can be included in the research model.

The main contribution of the current study is to present novel social antecedents of trusting beliefs into a theoretical model that illuminates the customers purchase behaviour in online social commerce marketplaces. By recognizing the fundamental social sources of e-trust as well as the individual and institutional sources in literature [25][60], this study offer in-depth understanding and a more complete picture on online purchase behaviours in social commerce marketplaces. Previous literature has paid more attention the influences of technological factors and institutional context in terms of building trust in e-commerce (i.e. [19]), overlooking the impacts of important aspects of the social context. Nonetheless, social context is believed to be a significant source of trusting beliefs. Therefore, the existing trust research is extended by this study as it presents a new social factors derived from the theory of social presence. Second, drawing on the theory of social presence, the current study conceives the nature of social aspect of shopping by developing three constructs: perception of others SP of interaction

with online sellers and SP of web. Although social presence was frequently perceived as unidimensional concept that denotes the constant feature of web interface [74]; this study has conceptualised social presence as a multidimensional concept in the context of social commerce. Third, through the constructs of social presence, this study reveals, how the utilisation of social functions and applications in e-commerce websites supports the process of building more reliable online environment and form customers behaviours and perceptions.

8. CONCLUSION

This research describes the role of trust and its influence on intentions to purchase. Trust is viewed as being a major factor when it comes to increasing buyers' intentions to purchase. Through a multidimensional conceptualisation of social presence, trust can be achieved. On the other hand, the multidimensional conceptualisation of social presence can be enriched through the support of Web 2.0 technologies and other social technologies.

This study underpins the role of social technologies and uses Social Presence Theory (SPT) to propose a theoretical framework of social commerce adoption. Specifically, this paper explores the nature of social aspects in social commerce by proposing a research framework that includes three social presence dimensions. These dimensions consist of: 1) the social presence of the website 2) the social presence of the interaction with sellers and 3) the social presence of others. It suggests that the three social presence dimensions act as key predictors of buyers' trusting beliefs, and subsequently their intention to purchase from social commerce websites. In addition, it highlights the significant role of trust in the market place and the role of reviews and ratings on the formation of trust and the intention to purchase.

This study contributes by underlining new aspects relevant to social presence theory and social commerce in several ways. First, the study conceptualises a multidimensional concept of social presence in the context of social commerce, tackling the unidirectional conceptualisation of social presence in an e-commerce context. Second, it suggests additional factors that influence the purchasing behaviour of buyers in a social commerce environment. Finally, it illustrates the positive impact of the proposed multi-dimensional conceptualisation of social presence on trusting beliefs, offering an effective method for trust

formation in a social commerce environment. In sum, this study combines IT-enabled institutional factors and social factors based on the utilisation of social technologies, in order to provide a trustworthy social commerce environment in which buyers can be confident when it comes to conducting their purchase decisions.

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