

PURCHASING BEHAVIOUR ON SOCIAL COMMERCE PLATFORMS: AN
EXAMINATION OF CANADIAN CONSUMERS

by

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Abstract

As social media technologies become more embedded within the online shopping interface, the phenomenon of social commerce arises. This research examines the role of social commerce in influencing consumer purchase intention. Specifically, factors investigated are social presence, consumer's security perceptions, perceived internet privacy risk, trust and willingness to provide personal information to transact. The study found that security perception, trust and willingness to provide personal information to transact have a significant influence on consumer purchase intention.

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CHAPTER 1: INTRODUCTION

In recent years, online shopping has become a dominant form of commercial activity, with statistics predicting global e-commerce sales to reach \$4.5 trillion by 2021 (Global Ecommerce, Orendorff, 2017). There has been a constant upward trend in the e-commerce market in the United States over the past decade. The retail e-commerce sales in the United States are projected to grow at a fast pace in the coming years, going from US\$360 billion in 2016 to just over US\$638 billion in 2022 (Statista, 2019). The Canadian e-commerce retail trade in 2017 was equal to C\$1.8 billion, and it is expected that the revenue generated within the retail e-commerce market will reach almost C\$29 billion by 2021, up from 18.3 billion in 2016 (Statista, 2019). One reason for this growth may be attributed to the increasing integration of social media technologies within the online shopping interface, resulting in a more socially oriented form of online shopping appropriately termed social commerce (Lin et al. 2015). Social commerce has been regarded as a subset of e-commerce, characterized by use of social technologies that allow for user-generated content (M. N. Hajli, 2014). Because of the growing popularity of social commerce, it is becoming the focus of several research studies (Zhang & Benyoucef, 2016). One area of research that warrants attention is how consumers' purchasing behaviour is influenced in the social commerce context.

This study draws on the stimulus-organism-response (SOR) framework (Mehrabian & Russell, 1974) as the theoretical foundation to trace the antecedents and mediators that influence a consumer's purchasing intention in the social commerce context. The stimuli include the various elements in the social commerce platform that indicate the presence of others (social presence) as well as the elements that induce perceptions of security, those that help indicate perceptions of privacy risk and willingness to provide personal information to transact. The organism refers to the internal process that occurs after this initial contact, which, in the case of social commerce, is

the formation of a trusting belief. The response in this study refers to the outcomes that individuals will receive once they experience stimuli through the social commerce platform: their emotional state of forming trusting beliefs is aroused and their response is an increased intention to purchase.

Studies have been conducted to examine the effect of consumers' intentions to make purchases through social commerce platforms (e.g. Chen & Shen, 2015; Bai, Yao, & Dou, 2015; N. Hajli, 2015; Lu, Fan, & Zhou, 2016; Zhang & Benyoucef, 2016; N. Hajli, Sims, Zadeh, & Richard, 2017) ; however, these studies are fragmented and only just emerging. Furthermore, studies of the effects of social presence in the social commerce interface are few (e.g. (Lu et al., 2016), and those on security perceptions and privacy are still developing (e.g. N. Hajli, 2015; Williams, 2018; Beyari & Abareshi, 2018). Our study contributes to this growing field by further exploring the role of social presence, security and privacy perceptions in the social commerce interface and in their relationship to motivating a consumer's purchase intention through this medium. Our study focusses on Canadian consumers. Additionally, it applies the use of the stimulus-organism-response framework to identify and organize the various factors that can influence a consumer's decision-making process within the social commerce interface, specifically regarding their purchase intention.

1.1 Statement of Purpose

The purpose of this study is to provide a deeper understanding of the role that social media play when consumers are making online purchases. There has been very little research on this topic and this study aims to fill this gap.

1.2 Research Question

What factors influence the intention to purchase when consumers are engaged in social commerce.

1.3 Organization of the Study

Following the introduction, chapter two will provide a detailed review of the literature that examines how social media within the e-commerce interface impacts the consumers' purchasing behavior and outline the research gaps that this study will fill. Chapter two is followed by the conceptual model which is developed based on the stimulus organism response (SOR) framework. Chapter 4 describes the, research methodology, data collection and statistical analysis followed by Chapter 5 that shows the presentation of the results. Chapter 6 presents the implications of our findings to purchasing behavior on social commerce platform, limitations of the study, future research and future research on measuring social presence with revised indicators. Finally, Chapter 7 presents the conclusion of the research.

CHAPTER 2: LITERATURE REVIEW

2.1 Social Commerce

Online shopping (E-commerce) refers to buying and selling of products over the internet (Nazir, Tayyab, Sajid, ur Rashid, & Javed, 2012). Social commerce is a sub-set of e-commerce that uses social media technologies that allow user-generated content (Hajli, et al., 2014). Social commerce consists of four layers from inner to outer, including individual (personal profile/activity), conversation (information exchange), community (support and connection), and commerce (purchase) (Huang & Benyoucef, 2013). Social commerce incorporates all layers to co-create value among multiple actors, while e-commerce only considers the inner layer (individual) and outer layer (commerce) (N. Hajli et al., 2017). For example, the main goal of Alibaba (www.alibaba.com) – the world's largest e-commerce company – is commerce and interactions that are basically limited to one-on-one communications among buyers and sellers (N. Hajli et al., 2017). Research identifies two broad views (Zhang & Benyoucef, 2016): in the first view, social commerce consists only of social networking sites (like Facebook, Twitter, Instagram). These social commerce platforms, such as Facebook and Twitter, provide various channels of C2C and B2C connections and enable the co-creation of content in multiple forms by both e-vendors and customers. E-vendors can create and co-create their pages with the help of users, by uploading pictures, videos, news, and promotions on their pages. Their social commerce platform helps them interact with customers in various ways. Customers are also able to comment on, rate, react to, and share pictures, videos, and news about an e-vendor or a product on the platform and interact with the e-vendor and other customers.

In the second view, social commerce is much broader and includes any website that uses social media technologies, such as User Generated Content, to facilitate online transactions. In this

view, traditional e-commerce sites like Amazon and The Bay can be considered social commerce because of their use of social media technologies that allow user generated content (Munawar, Hassanein, & Head, 2017).

The development of Web 2.0 technologies, which has enabled social media such as blogs, online communities, forums and social networks, has changed the framework of the web (Lai & Turban, 2008), by allowing user interaction and sharing. The increased popularity of social technologies over the last few years has brought about an extended range of social commerce opportunities (Liang & Turban, 2011; Marsden 2010).

With the help of social commerce, vendors can reach different markets by incorporating the social interactions of consumers (Hargadon & Bechky, 2006). Hajli, (2014) states that "online communities and social networking sites (SNSs) are effective web technology for social interactions and sharing information" (p.2). Web-based associations give an option to organizations to build effective connection with their customers (Ridings & Gefen, 2004). These will create positive value for consumers and help vendors refine their marketing strategies (Liang & Turban, 2011).

In contrast to shopping in physical stores, online interaction does not give a consumer the chance of having direct human contact (Gefen et al., 2003), and this leads to an automated, unknown and neutral relationship between vendor and consumer (Wang & Emurian, 2005). However, with the wide-spread use of social media technologies, and their incorporation in the social commerce medium, this neutral relationship is shifting, and there is a more dynamic relationship between the consumer and vendor. Furthermore, there is an impact on social awareness and presence due to social technologies and web technology applications.

Web 2.0 can lead to the perception of social elements in the online interface, which helps to add elements of the real-life shopping experience to its online counterpart. When users interact and communicate in social commerce communities, forums and groups, they share their ideas and experiences, by leaving reviews and advice for others. Reviews and recommendations provided by consumers while buying a product online are very helpful for other consumers who does not have any prior experience of that product or service (Do-Hyung et al., 2007).

The intention of this literature review is to examine factors that influence consumers purchasing behaviour on social commerce platforms.

2.2 Social Presence (SP)

Social presence is an important notion in social media and social commerce infrastructure. Social presence is known as interacting and socializing inside a website. To be specific, social presence is "the extent to which a medium allows users to experience others as psychologically present" (Hassanein & Head, 2005, p.2). The notion of social presence is found in the social presence theory that clarifies the capability of a communication method to transfer social signs (Short, Williams, & Christie, 1976). A medium is considered likeable if it allows human dealings, friendliness, and reactivity (Hassanein & Head, 2005). Customer reviews and recommendations provide electronic vendors a way to have a personalized relationship with the customers, that is the underlying framework of social presence (Piller & Walcher, 2006).

Features of social commerce websites, such as images and recommendations, strengthen the perception of social presence. Naylor, Lamberton, & West (2012) showed that the Like feature of Facebook helps to strengthen the customers brand opinion and purchase intentions. Gefen & Straub (2003) suggest that pictures and text can convey personal presence in the same manner as

do personal photographs or letters. Hassanein & Head, (2005) showed that emotive text and pictures of humans results in higher perceptions of social presence within websites.

Hassanein & Head (2005) showed emotive text and pictures of humans as resulting in higher perceptions of social presence within websites. Many authors have recommended multiple dimensions of social presence, including social context, interactivity, online communication (Tu and McIsaac, 2002), perception of others, self-projection, social identification (Caspi and Blau, 2008), awareness, effective social presence, cognitive social presence (Shen and Khalifa, 2009). An example of SP is a website that communicates a sense of friendliness (Gefen & Straub, 2004).

This feature of social commerce helps sellers to interact and persuade buyers to purchase products or services. If existing customers of social commerce provide positive reviews about a product, a positive signal will be delivered to others (Chen et al., 2011) and ultimately more people will engage in social commerce. Since human interaction is viewed as a precondition of trust (Blau, 1964) the buyer's web interactions should also contribute to the building of trust online. A website with high social presence conveys more information and social cues and is perceived to be more transparent (J. Kim & Lennon, 2013), which may lead to feelings of trust.

Hypothesis 1: Social Presence has a positive influence on Trust when consumers are intending to purchase online.

2.3 Security Perception (SEP)

Security is a very important consideration in online shopping and has been cited as one of the main concerns consumers feel when they pursue online purchases (Flavián & Guinalú, 2006; Chang and Chen, 2008; Naveed and Addoudi, 2009; Belanger, Hiller, & Smith, 2002; Park & Kim, 2003; Delafrooz, Paim, & Khatibi, 2011).

Security perception can be defined as the extent to which a person trusts that the online vendor's website is secure. Transfer of important information like credit card details is considered

of significant value (Salisbury, Pearson, Pearson, & Miller, 2001). The rapid growth of online retailing all over the world has turned the online market into a competitive place over the last decade or so. Because the Internet is often perceived as an unsafe environment for online shopping, websites must put in place security measures to protect customers (Chang & Chen, 2008).

Research has been done to examine the impact of institutional structures in the context of e-commerce space that convey a sense of security, where these structures represent impersonal measures that attempt to safeguard the transactions (Gefen, Benbasat, & Pavlou, 2008; Fang et al., 2014). These structures are neither transaction or party-specific (i.e. escrow accounts) and are processed according to standards that do not change with the brand company involved. Escrow account is an arrangement where “third party” holds accumulated funds for a particular pay out. That third party helps to make the transaction safer by ensuring that both parties meet their obligations. For instance, online escrow service providers (e.g., Paypal and SafeTrader) authorize payments only after the customer accepts the deal and agrees to pay, providing a safety net against potential risks in order fulfillment (Pavlou & Gefen, 2004). Online vendors are taking measures to safeguard the data of their customers. Common online concerns involve the security of credit cards, third-party services, and online privacy (McKnight, Kacmar, & Choudhury, 2004; Pavlou & Gefen, 2004).

Furnell (2004) suggests that showing policy statements and presenting a third-party seal like Verisign on the website are important factors that increase the perception of security, thereby increasing trusts, which in turn increases the likelihood of making a purchase. This leads to the following hypothesis:

Hypothesis 2: Security Perception has a positive influence on Trust when consumers are intending to purchase online.

2.4 Perceived Internet Privacy Risk (PIPR)

Individuals' perceived internet privacy risk refers to their beliefs about whether or not there is a risk of disclosure of their private information that they input over the Internet. (Margulis, 2003). These risks show the degree to which individuals believe they might lose their privacy. Privacy has been studied by researchers in a wide range of disciplines (Berkowitz & O'Brien, 2002). Privacy risk could include leakage or misuse of personal information (Rindfleisch & Heide, 1997; Policy, 2003). Privacy concerns influence the readiness of providing personal information to transact on the Internet. A lot of consumers are reluctant to shop online due to privacy and personal information submission concerns (Culnan & Armstrong, 1999). To overcome this fear of consumers, online businesses are taking steps to safeguard users' private information. However, if individuals feel that there are not enough online safeguards to ensure privacy of their personal information, this can have a negative impact on their development of trusting beliefs in the vendor. This leads to the following hypothesis:

Hypothesis 3: Perceived Internet Privacy Risk has a negative influence on Trust when consumers are intending to purchase online.

2.5 Willingness to Provide Personal Information to Transact (WPPIT)

An individual's willingness to provide personal information to transact (WPPIT) is a construct that describes one's "willingness to provide personal information required to complete transactions on the Internet" (Dinev, Hart, & Mullen, 2008, p. 219). One's willingness to provide personal information to transact suggests the extent to which an individual is likely to trust another party enough to provide them with personal information that can result in a transaction over the internet. WPPIT is an important antecedent to trust, such that the greater one's WPPIT the higher one's trust in the vendor. In this sense, an individual who is more willing to share personal information will also be more likely to form a trusting relationship. Culnan & Armstrong (1999)

found aid for the idea that users would be more willing to provide information if they knew who will have access to it and how it will be used. Furthermore, individuals who are more willing to provide personal information to transact may be more likely to form a purchasing intention. One of the top concerns of individuals who purchase online is the safety of the personal information that is collected to complete a transaction (such as credit card information) (Udo, 2001). Therefore, those individuals who are more willing to provide personal information will have already overcome one of the barriers to forming purchase intentions, and hence they may be more inclined to purchase online. This leads to the following hypotheses:

Hypothesis 4: Willingness to Provide Personal Information to Transact has a positive influence on Trust when consumers are intending to purchase online.

Hypothesis 5: Willingness to Provide Personal Information to Transact has a positive influence on consumer purchase intention.

2.6 Trust (T)

Trust is a construct in e-commerce (McKnight, Choudhury, & Kacmar, 2002; Gefen & Straub, 2004; Gefen, 2002) and social commerce (N. Hajli & Lin, 2016; Fang et al., 2014; Dinev & Hart, 2006; Featherman & Hajli, 2016). Hart & Saunders (1997) have defined trust as the confidence that another party will behave as expected, combined with expectations of the other party's good will. Zucker (1986) has defined trust as a set of shared social expectations that are essential for and determine social behavior, enabling individuals to respond to each other without the explicit specification of contractual details.

Trust is one of several factors that influences customers' intention to purchase from e-vendors (Flavián & Guinalú, 2006; Qureshi et al., 2009; Hoffman, Novak, & Peralta, 1999). If customers have less trust in an online business, they will be less inclined to engage in transactions on the web with this vendor (Flavián, Guinalú, & Gurrea, 2006; Gefen, 2002; Qureshi et al., 2009).

Trust is a key concept in interactions and important for companies in developing bonds with buyers (Gefen, Karahanna, & Straub, 2003). Schurr & Ozanne (1985) define trust as an individual's confidence that the exchange party is capable and willing to keep promises and adhere to the norms of the relationship.

Given the context of social commerce, uncertainty is higher due to lack of face-to-face interactions (Featherman & Hajli, 2015). Despite this, uncertainty can be reduced by implementing processes which increase trust (Gefen & Straub, 2004). Customer reviews and their experiences that are posted in the forums and communities can facilitate trust in the online business. Also, campaigns on social media that includes user-generated content see higher engagement and it has a bigger impact on consumers' opinion of a company than branded photos or videos. Trust plays a vital role in a customer's intention to buy online (Shin, 2010; Han and Windsor, 2011; Lu et al., 2010). As there are many worries and risks related to e-commerce, trust can mediate online consumer behaviour (Ba and Pavlou, 2002). With the help of social commerce and the development of Web 2.0, trust can be increased, thereby reducing customers' fears of online purchasing. For example, consumers feel a lower level of risk about an online business by reviewing the number of likes and recommendations made by other users for that online business.

In past studies researchers have mentioned other factors that have a positive effect on forming trust such as information quality, secure transactions and lively communication (Bock, Lee, Kuan, & Kim, 2012; Cheung & Lee, 2006; D. J. Kim, Ferrin, & Rao, 2008; Yao-bin, Zhong-chun, & Jian-hong, 2006). Web 2.0 has different applications like ratings, recommendations and review, which can be a helpful solution to increase trust. Social technologies are powerful because they allow consumers to engage one another (Han & Windsor, 2011), and communication and interaction between the users can increase trust among the participants (Han & Windsor, 2011). In

online transactions where trust exists, it gives the buyer a positive belief that e-vendors will not engage in opportunistic behaviour (Gefen et al. 2003). This leads to our next hypothesis.

Hypothesis 6: Trust has a positive, significant influence on purchase intention.

2.7 Purchase Intention (PI)

Purchase intention is defined as a consumer's willingness to purchase products or services from a website. Purchase intention may be influenced by an individuals' willingness to trust web sites (Yoh et al., 2003; Yoon, 2002). Purchase intention in social commerce contexts refer to the customers' intentions to engage in online purchases from e-vendors on social networking sites (SNSs) like Facebook, WhatsApp, Yahoo and Websites like Amazon, Apple. Intentions are the determinants of behaviour and defined as "the strength of one's intentions to perform a specific behaviour" (Fishbein & Ajzen, 1975, p. 288). In and Kang (2011) have explained purchase intention that relates to four behaviours of consumers including the definite plan to buy the product, thinking unambiguously to purchase the product, to consider buying a product in the future, and to buy the specific product with certainty.

CHAPTER 3: CONCEPTUAL MODEL

3.1 Conceptual Model

The means by which consumers buy products and services has changed over the last two decades, from the traditional store shopping to the present internet-based ones. Despite the changes, the fundamental aspects have remained, and researchers have adapted past models (Chang, Eckman, & Yan, 2011; Brengman & Karimov, 2012) to study different industrial sectors and business types. In the present thesis, and based on the literature review, a conceptual model was developed based on the stimulus-organism-response framework to guide this research. Since Mehrabian and Russell (1974) suggested that environmental stimuli (S) lead to an emotional reaction (O) that evokes behavioral responses (R), shown in Figure_1.

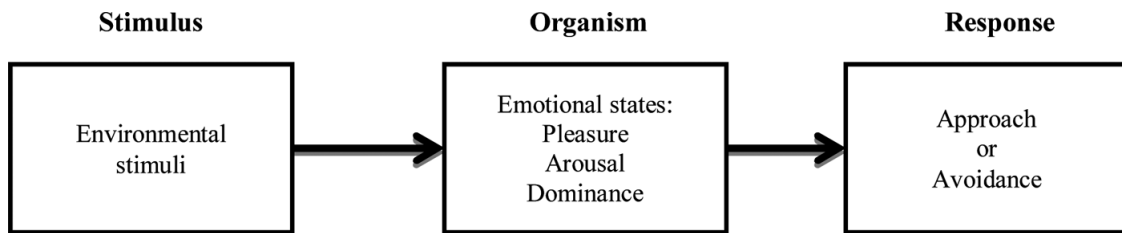


FIGURE 1: S-O-R framework. Source: Mehrabian and Russell (1974).

This model has been applied in various retail settings to explain the consumer decision making process (Chebat & Michon, 2003; Richard et al., 2009). As online retailing has emerged as the most rapidly growing form of retailing (Mulpuru et al., 2011), researchers have begun to focus on various aspects of this new medium using the S-O-R framework. For example, Richard and Chandra (2005) studied the relationship among web site navigational characteristics, user characteristics, internal states, consumer responses, and outcomes in the context of online communication. Past researchers have used Stimulus Organism Response (S-O-R), to examine the direct and indirect effects of retail environmental characteristics on impulse buying behavior (Chang, Eckman & Yan, 2011). According to Bagozzi (1986), when consumer behavior is depicted

as an S-O-R system, the stimuli are external to the person and consist of both marketing mix variables and other environmental inputs. McKinney (2004) used the S-O-R model to determine that consumers' internal motivations for Internet shopping differ and that these motivations have a significant effect on shopping satisfaction. Richard (2005) proposed a new factor, information-seeking, into the S-O-R framework and inferred from the study's results that high task-relevant information has a positive influence on consumers' involvement with a website and their subsequent shopping behavior. Koo & Ju (2010) confirmed that online environmental cues affect customers' emotions and intentions.

The current study develops a research model based on the S-O-R framework. As mentioned above, S-O-R stands for stimulus-organism-response, where stimuli refer to the signals and cues in an individual's environment, organism refers to the individual's emotional states, and response is the outcome an individual makes. In the context of this study, the stimuli include the various elements in the social commerce platform that indicate the presence of others (social presence) (Gefen & Straub, 2004; Hassanein, K., & Head, M. 2005; Cyr et al., 2007; Hess et al. 2009; Lu et al. 2016) as well as the elements that induce perceptions of security (Hajli and Lin 2016; Fang et al., 2014), those that help indicate perceptions of privacy risk (Tamara Dinev & Paul Hart, 2006; Hajli & Lin 2016) and willingness to provide personal information to transact (Tamara Dinev & Paul Hart, 2006) .

The organism in the context of this study is the trusting belief in the online vendor. Morgan and Hunt (1994) found that trust is an important factor in the success of the social organization. This can be extrapolated to social commerce, to suggest that trust forms an important component of success in the viability of the social commerce platform. Research suggests that trust plays a central role in influencing consumer decisions through both e-commerce (McKnight and

Choudhury 2002; Gefen and Straub 2004; Gefen 2000) and social commerce (Kim et al. 2013; Shin 2013; Hajli 2015; Lu et al. 2016).

The response in this study refers to the outcomes that individuals will receive once they experience stimuli in the social commerce platform: their emotional state of forming trusting beliefs is aroused and, the response is their purchase intention. Figure_2 shows the proposed research model based on the SOR framework for this current study.

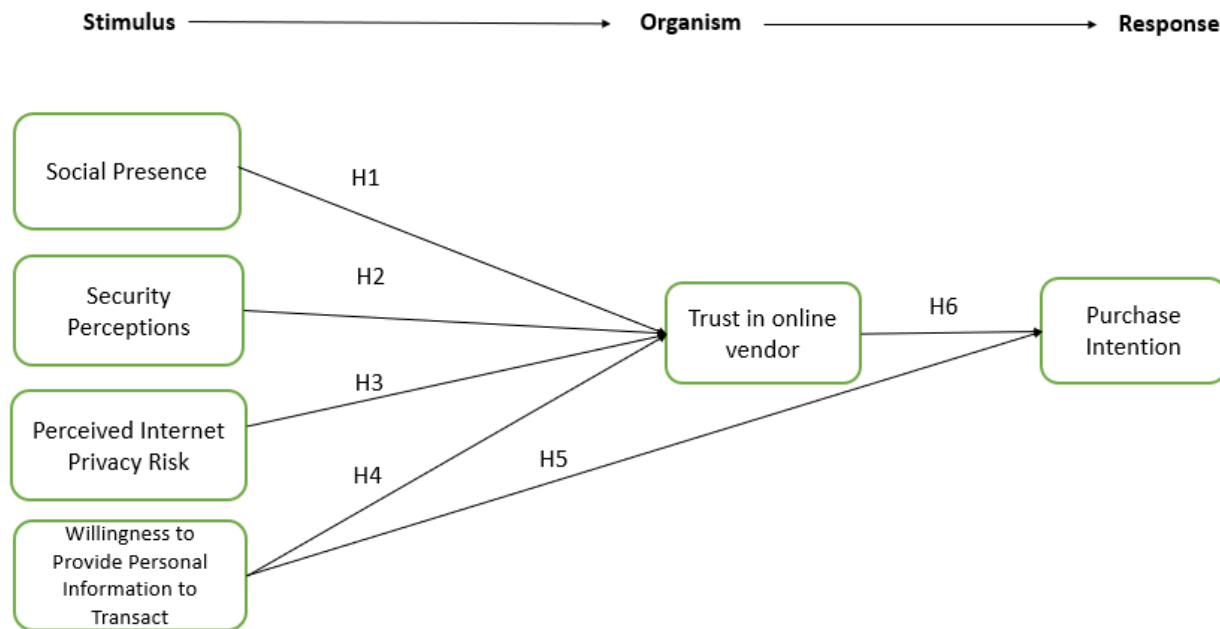


FIGURE 2: Proposed research model.

CHAPTER 4: RESEARCH METHODOLOGY

This chapter describes the methods that are carried out in this research study, and the rationale for choosing them. This chapter commences with the research design, followed by techniques and instruments used.

4.1 Research Design

Research design supports the entire research process. The purpose of this study is to examine the factors that influence consumers' purchase intentions in the context of social commerce.

A questionnaire was used to collect data to validate the research model. All scales were adapted from the literature to ensure content validity. Participants were asked about their opinions and judgements concerning the following six variables: social presence, security perception, perceived internet privacy risk, willingness to provide personal information to transact, trust and purchase intention. Statistical methods were used to analyze the data and test the hypothesis.

4.2 Instrument

To collect data for this study, an online survey was conducted by designing a questionnaire using a specialized software tool (Qualtrics, 2018). The questionnaire and the respective answers were populated with questions intended to measure customers' purchase intention when on social commerce platforms. Quantitative methods were selected as their results can be generalized, albeit with limitations. A seven-point Likert scale was used to measure each item. All scales were adapted from the extant literature to ensure content validity. The Likert scale was used because, it has been well established as a meaningful method which can help to understand consumers' purchasing behaviour (Finstad, 2010) and it allows for responses more expressive than a simple yes, no or neutral. The 7-point Likert Scale ranged from strongly agree (=1) to strongly disagree (=7) and is

more sensitive to measuring a respondent's actual views as compared to a 5-point item scale (Finstad, 2010). The questionnaire was tested before distributing it to the participants. The survey link was sent out to 5 participants (friends & family) via email to make sure that the questions were clear and that the survey flows correctly.

4.3 Sampling

The survey, with a description of the project, was approved by the Research Ethics Board of Ryerson University before being distributed to the participants. The questionnaire was distributed through the Student Research Pool (SRP) to a convenience sample of undergraduate students at Ryerson University in Toronto, Canada. Prior to distributing the survey via SRP, it was linked to Qualtrics. The participants would sign up through the University's SONA System to take the survey. The SONA System would assign them a 4-digit unique ID. The participants were provided with a consent form at the beginning of the survey and asked if they would take part in a voluntary survey. The participants were made aware of the study, its rationale, and that the survey was completely confidential as the questionnaire did not require them to provide any information which could identify them. The participants were asked in the beginning of the survey to think of a recent online purchase using a website and share their experience by answering the survey questions. A total of 351 students participated in the first survey. The returned questionnaires were carefully analyzed to ensure that the responses were not just simply completed to receive the credit. Many respondents of the first survey completed the survey either partially or too fast (less than 2 minutes). There were only 102 respondents who answered all the questions by spending an average time of 5 minutes or more. Therefore, the questionnaire was modified by adding a nudge question (e.g. Do you agree to spend about 5 minutes on this survey and think carefully about your answers to each of the question? 1. Yes, for sure, I will help you, 2. No. I

won't continue. Thanks anyway). Also, some attention filters were added, (e.g. please select 'strongly agree') where participants had to answer a question with a very specific answer in order to continue with the survey or else were bounced out. The modified questionnaire was distributed again through SRP in order to collect additional responses. The total returned questionnaires from the second survey were 243 out of which 143 were included for analysis and the remaining 100 were discarded due to being partially filled (bounced out due to failing attention filters) or completed too fast (less than 2 minutes).

4.4 Data Analysis

Statistical analysis is described as the collection and examination of quantitative data in order to discover fundamental causes, patterns, kinships, and trends (Hayes, 2008). Partial Least Squares has been chosen as the statistical tool because of its ability to simultaneously evaluate both the measurement and structural model, allowing for rigorous analysis (Gefen, Straub, & Boudreau, 2000). The specific tool was SmartPLS (Henseler, Ringle, & Sarstedt, 2015). PLS has the advantage this it can model latent constructs that do not conform to the conditions of normality, and it can handle small to medium sample sizes (Chin, Marcolin, & Newsted, 2003).

There are two steps performed in SmartPLS analysis: confirmation of the measurement model and the calculation of the coefficients in the path model (Chin, 2010). The first step was to test the measurement model for reliability, convergence and discriminant validity (Hair, Hult, Ringle, & Sarstedt, 2016). The second part of the analysis was the calculation of the path coefficients. Bootstrapping with 5000 samples was conducted in order to calculate the t-statistic and p-values for each path. Figure 3 shows the stages of the measurement and structural models.

Stage 5: Evaluation of the Measurement Models	
Stage 5a: Reflective Measurement Models	Stage 5b: Formative Measurement Models
<ul style="list-style-type: none"> • Internal consistency (Cronbach's alpha, composite reliability) • Convergent validity (indicator reliability, average variance extracted) • Discriminant validity 	<ul style="list-style-type: none"> • Convergent validity • Collinearity between indicators • Significance and relevance of outer weights
Stage 6: Evaluation of the Structural Model	
<ul style="list-style-type: none"> • Coefficients of determination (R^2) • Predictive relevance (Q^2) • Size and significance of path coefficients • f^2 effect sizes • q^2 effect sizes 	

FIGURE 3: Source: (Hair, Hult, Ringle, & Sarstedt, 2016).

It has recently been enhanced to include moderator analysis and heterotrait-monotrait (HTMT) ratio of correlations for discriminant analysis (Henseler et al., 2015). Initial analysis consisted of obtaining the maximum, minimum mean, median, and standard deviation for the research variables of social presence, security perception, perceived internet privacy risk, willingness to provide personal information to transact, trust and purchase intention. Cronbach's alpha (reliability coefficient) was used to measure the internal consistency and reliability of the dataset obtained from the questionnaires (Saunders, Lewis, & Thornhill, 2013). The Fornell-Larcker table and heterotrait-monotrait (HTMT) ratio of correlations were used to Lastly, we calculated the path coefficients and their significance carry out discriminant validity.

CHAPTER 5: RESULTS

594 completed questionnaires were returned. After eliminating 349 (unfilled, partially filled and those which failed the attention filters), 245 valid (complete) responses were included in the analysis, that in turn yielded a completion rate of $245 / 594 = 41.3\%$.

5.1 Demographic Statistics

The survey participants were 30% (n=73) male and 70% (n=172) female. The gender classification is only to get an idea of male and female participants. In this study the consumers' online purchasing behaviour is not examined based on gender. Table 1 shows the gender classification.

Table 1: Respondents Gender

Gender	Number (n)	Percent (%)
Male:	73	30%
Female:	172	70%
Total:	245	100

5.2 Testing the Measurement Model

5.2.1 Outer loadings

The measurement model, or outer model, represents the relationship between constructs and their corresponding indicator variables (Hair, Hult, Ringle, & Sarstedt, 2016). The values in Table 2 are measuring each indicator's impact on the allocated variable construct (Hair, Hult, Ringle, & Sarstedt, 2016). The correlation coefficients were greater than 0.724 (Hair, et al., 2013) for most of the indicators. See Table 2.

Table 2: Outer Loadings

Indicators	Perceived Internet Privacy Risk	Purchase Intention	Security Perception	Social Presence	Trust	Willingness to provide personal information to transact
PIPR-1	0.866					
PIPR-2	0.835					
PIPR-3	0.943					
PI-1		0.899				
PI-2		0.74				
PI-3		0.812				
SEP-1			0.819			
SEP-2			0.869			
SEP-3			0.871			
SP-1				0.617		
SP-2				0.626		
SP-3				0.792		
SP-4				0.853		
T-1					0.832	
T-2					0.921	
T-3					0.829	
WPPIT-1						0.886
WPPIT-2						0.724
WPPIT-3						0.897

However, we dropped Social Presence (SP) from the model because of its non-converging indicators. See Table 3.

Table 3: Outer Loadings (After dropping Social Presence)

Indicators	Perceived Internet Privacy Risk	Purchase Intention	Security Perception	Trust	Willingness to provide personal information to transact
PIPR-1	0.866				
PIPR-2	0.836				
PIPR-3	0.943				
PI-1		0.899			
PI-2		0.74			
PI-3		0.812			
SEP-1			0.869		

SEP-2			0.819		
SEP-3			0.871		
T-1				0.832	
T-2				0.921	
T-3				0.83	
WPPIT-1					0.886
WPPIT-2					0.724
WPPIT-3					0.897

5.2.2 Internal Consistency

The traditional criterion for internal consistency is Cronbach's alpha, which provides an estimate of reliability based on the intercorrelations of the observed indicator variables (Hair, Hult, Ringle, & Sarstedt, 2016).

The reliability and validity of the constructs were tested by calculating Cronbach's alpha, composite reliability and average variance extracted. Cronbach's alpha was greater than 0.7 (Cronbach & Meehl, 1955), where Cronbach's alpha 0.70 or higher is considered acceptable in most research studies and is considered to be reliable (Santos, 1999). The composite reliability was greater than 0.7, for composite reliability, where a value greater than 0.70 is considered adequate in exploratory research (Hair Jr, Hult, Ringle, & Sarstedt, 2016). The average variance extracted was greater than 0.5 (Henseler, Ringle, & Sarstedt, 2015). See Table 4.

Table 4: Construct reliability and validity

Latent Variables	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Perceived Internet Privacy Risk (PIPR)	0.87	0.913	0.779
Purchase Intention (PI)	0.785	0.859	0.672
Security perception (SEP)	0.818	0.889	0.728
Trust (T)	0.828	0.896	0.743
Willingness to provide personal Information to transact (WPPIT)	0.791	0.876	0.704

5.2.3 Convergent Validity

The Average Variance Extracted (AVE) is a measure of the variance in a construct compared to the variance as a result of measurement error. The threshold for an adequate AVE is at least 0.50 (Albashrawi & Motiwalla, 2015). Convergent validity measures the correlation of multiple indicators of the same variable set, using a value range between 0 and 1 (Hair Jr et al., 2016). In this present research the AVE was grater than 0.5 which shows that the variables have intercorrelation and have convergent validity.

5.2.4 Discriminant Validity

Discriminant validity is the extent to which a construct is truly distinct from other constructs by empirical standards (Hair, Hult, Ringle, & Sarstedt, 2016). Assessment of discriminant validity is necessary regarding latent variables to avoid multicollinearity issues. The PLS algorithm was run to calculate the Fornell-Larcker criterion from the cross loadings to assess the discriminant validity.

Based on the Fornell-Larcker criterion, the AVE square root of every construct should be more than the highest correlation construct with any other in the model (Fornell & Larcker, 1981). See Table 5.

Table 5: Fornell-Larcker Scores

Latent Variables	Perceived Internet Privacy Risk	Purchase Intention	Security perception	Trust	Willingness to provide personal Information to transact
Perceived Internet Privacy Risk (PIPR)	0.883				
Purchase Intention (PI)	-0.095	0.82			
Security Perception (SEP)	-0.116	0.38	0.853		
Trust (T)	0.042	0.355	0.369	0.862	

Willingness to provide personal information to transact (WPPIT)	0.081	0.349	0.431	0.493	0.839
---	-------	-------	-------	-------	-------

The Heterotrait - Monotrait Ratio (HTMT) criterion is a new approach to assess discriminant validity and is considered superior to the other approaches such as Fornell-Larcker criterion and (partial) cross-loadings (Hair Jr et al., 2016). The HTMT should be less than 1 (Hair Jr et al., 2016). See Table 6. All values are less than 1, which supports the discriminant validity among the constructs.

Table 6: Heterotrait - Monotrait Ratio (HTMT) values

Latent Variables	Perceived Internet Privacy Risk	Purchase Intention	Security perception	Trust
Purchase Intention	0.133			
Security perception	0.134	0.472		
Trust	0.057	0.407	0.431	
Willingness to provide personal Information to transact	0.12	0.389	0.525	0.598

5.3 Analysis of the Path Model

Path analysis is a form of statistical analysis that is used to analyze models by examining the relationships between a dependent variable and two or more independent variables. It can be used to estimate both the magnitude and significance of relationship between variables.

The coefficient of determination, denoted as R^2 , is the most commonly used measurement to evaluate the strength of the relationships in the structural model (Hair Jr et al., 2016). The R^2 value ranges between 0 and 1, and it represents how closely the model with the independent variables explains the variation of the dependent variable. The higher levels indicate that more of

the variance is due to the independent variables (Hair Jr et al., 2016). In our research model, “purchase intention” has a $R^2 = 0.165$. According to (Cohen, 1992) suggested R^2 values for endogenous latent variables are assessed as follows: 0.26 (substantial), 0.13 (moderate), 0.02 (weak). Joseph F et al. (2013) addressed the difficulty of providing a criterion for an acceptable R^2 as it is reliant upon the model complexity and the research discipline. While R^2 values of 0.20 are deemed as high in disciplines such as consumer behavior, R^2 values of 0.75 would be perceived as high in success driver studies (e.g., in studies that aim at explaining customer satisfaction or loyalty).

Significance was determined by running the bootstrapping calculations with 5000 samples and no sign change. Four paths were significant. Table 7 shows that security perception to trust, Willingness to Provide Personal Information to Transact to Trust, Willingness to Provide Personal Information to Transact to Purchase Intention and Trust to Purchase Intention is significantly and positively correlated. t-values greater than 1.96 represent a significance with probability of 95% that the hypothesis is true.

Table 7: Summary of results

Number	Hypothesis	Path Coefficient	T Statistics	P Values	Supported
H1	Social Presence -> Trust	Not tested because Social Presence was dropped due to indicators not converging			Dropped
H2	Security Perception -> Trust	0.199	3.037	0.002 **	✓
H3	Perceived Internet Privacy Risk -> Trust	0.032	0.379	0.704	X
H4	Willingness to Provide Personal Information to Transact -> Trust	0.405	6.847	0 ***	✓
H5	Willingness to Provide Personal Information to Transact -> Purchase Intention	0.230	3.014	0.003 **	✓

H6	Trust -> Purchase Intention	0.241	2.349	0.019 *	✓
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*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

Similarly, Figure 4 shows the results of analysis.

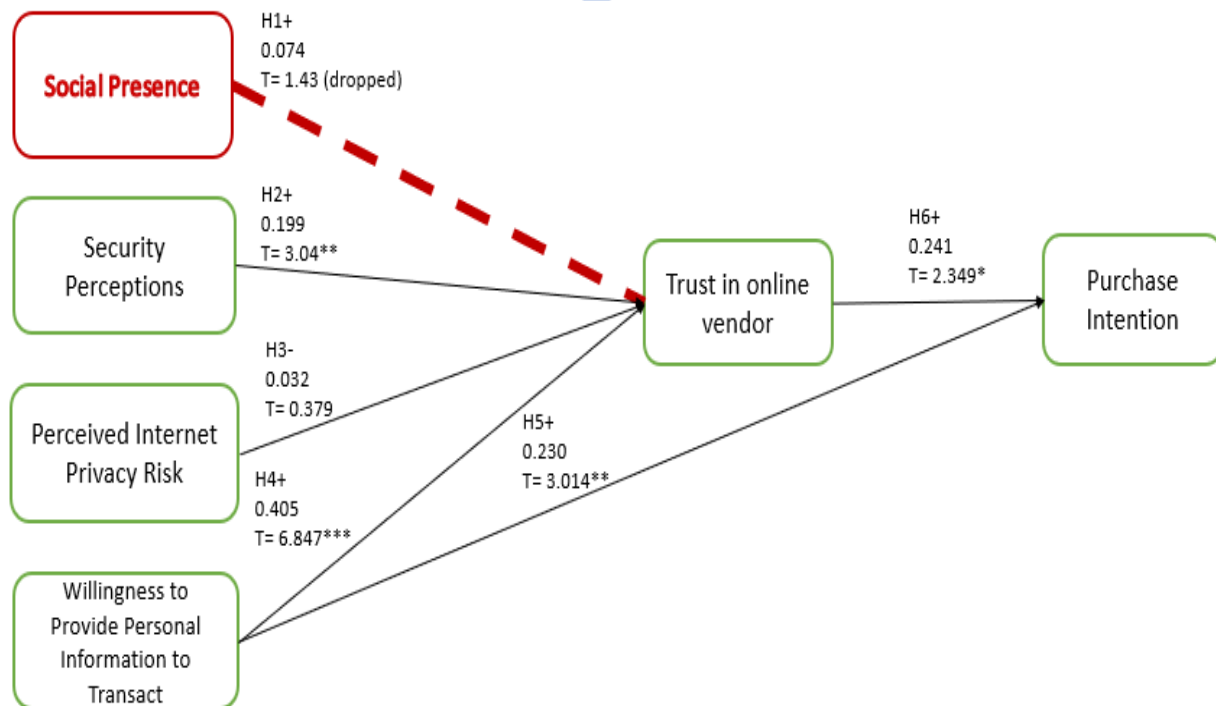


FIGURE 4: Results of Analysis

CHAPTER 6: DISCUSSION

This study investigated the influence of social presence, trust, security perception, perceived internet privacy risk and willingness to provide personal information on consumers' intention to purchase via a social commerce platform. The data illustrates which of the five elements have influence on consumers purchase intention. Four hypotheses are supported, while one hypothesis was rejected at the significance level of $p < 0.05$ (indicated by $t > 1.96$) (See the above Table 7).

Dropped - Hypothesis 1: Social Presence has a positive influence on Trust when consumers are intending to purchase online.

As online purchasing does not give consumer's the opportunity to interact face to face with the vendor, it is important for the social commerce websites to strengthen the perception of social presence, by incorporating good features such as images and recommendations. Naylor et al. (2012) showed that the Like feature of Facebook helps to strengthen brand opinion and purchase intentions. If existing consumers using social commerce provide positive reviews about a product, this will deliver the positive signal to others (Chen et al., 2011) and ultimately more people will engage in that purchasing action through the social commerce platform. Unfortunately, when empirically testing the model, it was determined that social presence was not measured well as its indicators did not converge. We therefore eliminated social presence from the model. One reason for the non-converging indicators of social presence may be because the data was collected via an online questionnaire which lacks realism, and the sample of students were not able to visualize the possible personal relationship with the website defined in the questionnaire. Future research should further investigate the indicators so that social presence can be measured with valid scales.

Supported - Hypothesis 2: Security Perception has a positive influence on Trust when consumers are intending to purchase online.

Because there is a spatial and temporal separation between consumer and vendor in the online shopping space, it may result in consumers feeling cautious about transacting over the web due to privacy concerns. Because many users feel that the Internet is not a safe environment for online shopping, online websites must put in place security measures to protect customers' data. Credit card details is considered of significant value (Salisbury et al., 2001) as it has important information. As previously noted, Furnell (2004) mentioned that a third-party seal like Verisign on the website is an important factor in the perception of security from the consumer's viewpoint. When customers feel a sense of security with the safety procedures put in place by the online vendor, they will be more inclined to make a purchase.

Not Supported - Hypothesis 3: Perceived Internet Privacy Risk has a negative influence on Trust when consumers are intending to purchase online.

Privacy risk over the internet could include leakage or misuse of personal information, such as insider revelation or forbidden access (Rindfleisch, 1997). Despite the many risks involved with disclosing personal information over the internet, online vendors are taking measures to safeguard the data of their consumers. However, this hypothesis was not supported. This may be because in the context of this study the sample of university students do not consider privacy risk over the internet to be an issue. In general, younger people have less aversion to privacy leakage online and generally tend to take more risks in regard to revealing their personal information. They regularly share personal information via social media. As can be seen from the results of this study, this subject pool (university students) may be less concerned about privacy. This could be because of their age; it could also be that they sense a lack of realism because of the use of a questionnaire.

Supported - Hypothesis 4: Willingness to Provide Personal Information to Transact has a positive influence on Trust when consumers are intending to purchase online.

Supported - Hypothesis 5: Willingness to Provide Personal Information to Transact has a positive influence on consumer purchase intention.

As Culnan & Armstrong (1999) mentioned if users would know who and how their personal information will be used, then they would be more willing to provide information. An individual's willingness to provide personal information to transact indicates the extent to which an individual is ready to share personal details to follow through with an online transaction. In the context of this study, this readiness is measured in the context of social commerce platforms. Individuals who are willing to provide this information may not care about their data being shared, or they may believe that the social commerce website provides enough security. Our results show that individuals who are willing to share more readily are more likely to place their trust in the website they are transacting over. Our results also indicate that this willingness can also translate into the development of purchasing intentions through the platform. Again, this may reflect the sample of students, who tend to pay less attention to privacy concerns.

Supported - Hypothesis 6: Trust has a positive, significant influence on purchase intention.

Trust is an important element in the context of online purchasing and has been extensively studied in the e-commerce and social commerce settings (Gefen & Straub, 2004). If customers tend to have trust in an online vendor or platform, they will engage in transactions on the web (Hoffman et al., 1999; Lee & Turban, 2001; Pavlou, 2003). Trust facilitates an individual's intent to purchase online and fills the void that is developed through the spatial and temporal separation between consumer and vendor. The greater a consumer's trust in the online vendor, the greater their purchase intention. Our results show that security perceptions, perceived internet privacy risk, and willingness to provide personal information to transact all influence trust in the online vendor,

which itself then influences a consumer's purchase intention through the social commerce medium.

6.1 Implications

6.1.1 For academia

This research study has proposed and empirically validated a research model that evaluates the factors that influence an individual's intention to purchase in the context of social commerce. This study draws on the stimulus-organism-response (SOR) framework (Mehrabian & Russell, 1974) as a theoretical guide to map the antecedents involved in influencing a consumer's purchasing intention. SOR posits that stimuli (stimulus) in an individual's environment can work through various internal processes within the individual (organism) to elicit an outward reaction (response). This research sought to examine whether social presence and security elements in the social commerce platform (stimulus) can impact a consumer's trust in the platform (organism) and how this in turn impacts his/her intent to engage in a purchase through that platform (response). The final research model indicates that security elements inherent within the social commerce platform do indeed impact consumers' trust in the platform and their privacy perceptions, and that these go on to impact a consumer's purchasing intention.

There are multiple theoretical contributions of this study. The first contribution is that the SOR model has been applied to the newer context of social commerce to map the factors impacting a consumers' purchasing intention. As social commerce is a new mode of online shopping, research in this area is only just emerging. As such, this study bridges this gap in the literature by identifying security elements as important aspects of the social commerce interface that work through trust and privacy perceptions to influence a consumer's intent to purchase through the

medium. Although purchase intentions of consumers have been studied within the broader e-commerce context (Gefen, 2000), we examine this within the social commerce context.

6.1.2 For practitioners

This study makes important practical contributions. Vendors should make their online business platform sociably attractive through rich content. Good features of social commerce websites, such as images and recommendations, strengthen the perception of social presence. Vendors should also include security elements (Verisign, PayPal) to improve sales. Security elements provide a sense of safety when transacting online, and, as suggested by this study, they can lead to greater trust in the platform as well as decrease perceptions of privacy risk.

Trust is an important construct that besides encouraging one's initial purchase intention, can also lead to recurring and repeat purchases (Fang et al., 2014). Thus, if a platform can encourage and build trust, it can lead not only to initial purchase intentions, but may facilitate future purchases. Furthermore, privacy is an important topic today, with attention given to the importance of protecting privacy online (Kokolakis, 2017). If a social commerce platform, through highlighting security elements within its interface, can enhance privacy perceptions, this in turn can translate to more confident consumers that are willing to engage in transactions through the platform.

6.2 Limitations

This study utilized a convenience sample of undergraduate university students obtained through the Student Research Pool (SRP) at Ryerson University. This is a limitation because this sample does not represent the general population. Furthermore, this subset is more likely to consist of proficient internet users who may be more trusting and less likely to be concerned about loss of privacy. As such, for this specialized subset of the population, even limited security perceptions

may bolster a stronger trusting intention in the platform, and stronger perceptions of privacy, leading to more of a willingness to provide personal information when purchasing online. Future studies may find it useful to test this model against a more generalized population. Convenience samples have, however, been utilized in numerous research studies, and although this is a limitation, it is still an acceptable method of sampling (Etikan, Musa, & Alkassim, 2016). Another limitation is that this study used a questionnaire, and questionnaires are sometimes lacking in realism, especially when examining a consumer's intent to purchase. Assessing an individual's purchase intention through a questionnaire may not necessarily reflect whether the individual is in fact likely to engage in the actual transaction. Future studies may attempt to incorporate an experimental procedure, or a natural experiment developed in a manner that incorporates realistic scenarios.

Finally, the study findings could be further strengthened by including a qualitative component to aid in triangulation of the results. The qualitative component could be in the form of open-ended questions aimed at better understanding the perceptions of the participants regarding underlying factors motivating their purchase intention through the social commerce medium.

6.3 Future Research

Future research can further examine this model in different countries. For example, what are the factors that influence purchase intention on social commerce platforms amongst Chinese consumers vs. Canadians, or Pakistani consumers vs. Canadians. Furthermore, understanding personality traits and their influence on purchase intention in social commerce may also provide valuable insight. This study looked at purchase intention in social commerce; it may also be

interesting to see how these same factors influence impulse purchasing within the social commerce context.

6.3.1 Future Research: Measuring Social Presence

Further research can be conducted to critically review and investigate the construct of social presence as it was dropped due to its non-convergent indicators. This research utilized the social presence scale developed by (Gefen & Straub, 2003), which is a widely used scale, particularly within the e-commerce space (e.g. Hassanein & Head, 2005; Cheung et al., 2011; Shen, 2012; Gao et al., 2018; Iqbal et al., 2018). Table 8 illustrates the scales used by past researchers for social presence.

Table 8: Social Presence Scales from Extant Literature

Construct	Scales used	Source	No. of items
Social presence	SP1: There is a sense of human contact in the Website SP2: There is a sense of personalness in the website SP3: There is a sense of sociability on the Website SP4: There is a sense of human warmth in the Website SP5: There is a sense of human sensitivity in the Website	Gefen and Straub (2003)	5
Social presence	SP1: There is a sense of human contact in the Website SP2: There is a sense of personalness in the website SP3: There is a sense of sociability on the Website SP4: There is a sense of human warmth in the Website SP5: There is a sense of human sensitivity in the Website	Hassanein, K., & Head, M. (2005)	5
Social Presence	SP1: There is a sense of human contact in Facebook SP2: There is a sense of personalness in Facebook SP3: There is a sense of sociability in Facebook SP4: There is a sense of human warmth in Facebook SP5: There is a sense of human sensitivity in Facebook	Cheung, C. M., Chiu, P. Y., & Lee, M. K. (2011).	5
Social Presence	SP-1: There is a sense of human contact in the website. SP-2: There is a sense of sociability in the website. SP-3: There is a sense of human warmth in the website. SP-4: There is a sense of human sensitivity in the website.	Shen, J. (2012)	4
Social Presence	SOP1. There is a sense of human contact in this seller's website SOP2. There is a sense of personalness in this seller's website SOP3. There is a sense of sociability in this seller's website SOP4. There is a sense of human warmth in this seller's website SOP5. There is a sense of human sensitivity in this seller's website	Gao, W., Liu, Y., Liu, Z., & Li, J. (2018).	5

There are other scales developed which may serve as a better fit, it may be useful to tap into scales developed specifically for social commerce, such as the one developed by Zhang et al., 2014, Gaspi & Blau, 2008 & Hess et al., 2009 as these may be more relevant to the context. In addition, many authors have recommended multiple dimensions of social presence, including social context, interactivity, online communication (Tu and McIsaac, 2002), perception of others, self-projection, social identification (Caspi and Blau, 2008), awareness, effective social presence, cognitive social presence (Shen and Khalifa, 2009). This will help construct a new measure of SP with several indicators. Table 9 illustrates the proposed scales to be used to conduct future research to measure social presence with revised indicators.

Table 9: Social Presence Scales for future use

Social presence	SPR1. When surfing SinaWeibo (RenRen), the interaction with the other customers is personal SPR2. When surfing SinaWeibo (RenRen), the interaction with the other customers is warm SPR3. When surfing SinaWeibo (RenRen), the interaction with the other customers is close SPR4. When surfing SinaWeibo (RenRen), the interaction with the other customers is humanizing SPR5. When surfing SinaWeibo (RenRen), the interaction with the other customers is emotional	Zhang, H., Lu, Y., Gupta, S., & Zhao, L. (2014).	5
Social Presence	SP1. cold / warm SP2. insensitive / sensitive SP3. impersonal / personal SP4. unsociable / sociable	Hess, T. J., Fuller, M., & Campbell, D. E. (2009)	4
Social Presence	SPO1 I can sense others who feel interest with the product. SPO2 I can sense others who provide information about the seller SPO3 I can sense others who provide information about the product. SPO4 I can sense others who have browsed this web.	(Gaspi & Blau 2008)	4

The above scales will be used in addition to the current scales to measure social presence in the future by modifying the survey questionnaire and re distributing it via the Student Research Pool (SRP). In addition, we suggest collecting data from different age groups and not only

targeting university students who are not representative of the population. Therefore, the findings of this study cannot be generalized. Furthermore, in addition to a survey questionnaire other data collection technique could be used such as interviews that can help in evaluating the individuals' intention to purchase.

CHAPTER 7: CONCLUSION

This research study provides a deeper understanding of consumer purchase behaviour in the online social commerce context. As social commerce is a newer mode of online shopping, with researchers regarding it as a subset of e-commerce, research in this area is only just emerging. Because of the rapid uptake of social commerce usage by consumers, there is a pressing need for scholarly contributions to this developing field. This study provides one such contribution, by tracing the factors involved in influencing a consumer's purchase intent through this medium. This research highlights that security elements inherent in the platform (those that allow a consumer to feel secure about his/her transaction) can lead to trust formation and the development of privacy perceptions, and that these in turn can influence a consumer's willingness to provide personal information regarding a transaction, ultimately influencing his/her purchase intention. By developing this research model, which is grounded in the stimulus-organism-response framework, this study provides a novel theoretical contribution. It also provides a practical contribution by allowing vendors to understand the elements of the social commerce interface that motivate a consumer's purchase behaviour through their platform.

APPENDIX A (SURVEY ITEMS)

1 Social Presence

SP-1: There is a sense of human contact in the website.

SP-2: There is a sense of personalness in the website.

SP-3: There is a sense of sociability in the website.

SP-4: There is a sense of human warmth in the website.

SP-5: There is a sense of human sensitivity in the website.

(Gefen & Straub, 2003)

2 Perceived Internet Privacy Risk

PIPR-1: Records of transactions could be sold to third parties.

PIPR-2: Personal information submitted could be misused.

PIPR-3: Personal information could be made available to unknown individuals or companies without your knowledge.

(Tamara Dinev & Paul Hart, 2006)

3 Security Perception

SEP-1: A mechanism is in place to protect me against potential risks while purchasing online.

SEP-2: Third party internet compliance company (Safe Trader, TRUSTe) to protect me against potential risks while purchasing online.

SEP-3: My personal information will not be leaked while purchasing online.

(Fang et al., 2014)

4 Purchase Intention

PI-1: I am very likely to make a purchase through an online website.

PI-2: I would use my credit card to purchase through an online website.

PI-3: I will continue to purchase online in the future.

(Gefen & Straub, 2003)

5 Trust

T-1: I trust the online website to do the job right.

T-2: I trust the online website.

T-3: I believe that the online website is trustworthy.

Gefen (2000)

6 Willingness to Provide Personal Information to Transact

When using the Internet, you are often asked to provide personal information and payment details, such as credit card or bank account. How comfortable are you in providing this information when?

WPPIT-1: Purchasing goods.

WPPIT-2: Retrieving information.

WPPIT-3: Buying services.

(Tamara Dinev, et al., 2007)

APPENDIX B (QUESTIONNAIRE/SURVEY)

Purchasing Behavior

Start of Block: Introduction and Consent

INTRODUCTION: This research study is being conducted by Zainab Khan an MScM graduate student together with her supervisor Dr. Norman Shaw at Ted Rogers School of Retail Management, Ryerson University. **PURPOSE:** The purpose of this study is to examine; how various factors influences online purchasing intentions of Canadian consumers. **WHAT ARE YOU BEING ASKED TO DO:** You are being asked to voluntarily complete this online survey about customer purchase intention? It should take about 10 to 15 minutes to complete. For all your answers to be collected you must go to the end of the survey and click 'submit survey'. This will demonstrate your full consent to participation. **POTENTIAL BENEFITS:** There is no direct benefit to the participants. Beneficiaries of the research will be future students and instructors. It is hoped that the results of this study will help the vendors to understand how the design of their social commerce interface can impact, how consumers purchase through their websites. This research will have potential contributions for Canadian vendors. **POTENTIAL RISKS:** Some of the survey questions may make you uncomfortable. You are free to decline any questions or stop participating at any time. If you close your browser before reaching the end of the survey and do not confirm your consent to participate at the end of the survey by clicking the 'submit' button, your information collected up to that point will not be used. The survey is anonymous - I will not be collecting information that will identify you. In case if the participants contact the researcher, they will no longer remain anonymous, but their confidentiality will be protected as only the researcher has the access to the survey and email. **HOW YOUR INFORMATION WILL BE PROTECTED AND STORED:** This survey uses Qualtrics, which is a USA company. Consequently, under the provisions of the Patriot Act, USA authorities may access the survey data. Survey data will be password protected and only I will have access to the detailed data. Ryerson's Google Drive will be used if the data needs to be shared electronically with the supervisor. Any future publications will include collective information (i.e., aggregate data). Individual responses will not be shared with anyone outside of my research team. When the research is completed, I will keep the data for up to 24 months after the study is over. **YOUR RIGHTS AS A RESEARCH PARTICIPANT:** Your participation in this research is completely voluntary. The consent form indicates you can opt out at any time and abandon the questionnaire. Incomplete surveys will not be kept. However, if you complete the survey and then later decides to withdraw, it is not possible to delete that data because there are no identifying links between you and the data collected. **INCENTIVES AND REIMBURSEMENT:** The Students will receive 0.25 credits as explained by the Sona System.

QUESTIONS: If you have any questions about the research now, please ask. If you have questions later about the research, you may contact me by e-mail at zainab.m.khan@ryerson.ca or my supervisor Dr. Norman Shaw by e-mail at norman.shaw@ryerson.ca. This study has been reviewed by the Ryerson University Research Ethics Board. If you have questions regarding your rights as a participant in this study, please contact: Research Ethics Board c/o Office of the Vice President, Research and Innovation Ryerson University 350 Victoria Street Toronto, ON

M5B 2K3 416-979-5042 rebchair@ryerson.ca Please print a copy of this page for your future reference.

- ☐ Yes, I consent to participate (1)
- ☐ No, I do not wish to participate (2)
-

Q17 Do you agree to spend about 5 minutes on this survey and think carefully about your answers to each of the question?

- ☐ Yes, for sure, I will help you. (1)
- ☐ No. I won't continue. Thanks anyway (2)

Skip To: End of Survey If Do you agree to spend about 5 minutes on this survey and think carefully about your answers to ea... = No. I won't continue. Thanks anyway

Q1 With which gender do you self-identify?

- ☐ Male (1)
- ☐ Female (2)
- ☐ Other (3)
-

Q2 How often do you shop online?

- ☐ Daily (1)
 - ☐ A few times per week (2)
 - ☐ Once per week (3)
 - ☐ A few times per month (4)
 - ☐ Monthly (5)
 - ☐ Less than monthly (6)
 - ☐ Not at all (7)
-

Q20 This survey is about making a purchase online using a website. Keeping in mind a website which you usually use to shop online please answer the following questions thinking about your experience.

Q3 Please indicate your agreement with the following

	Strongly agree (1)	Agree (2)	Somewhat agree (3)	Neither agree nor disagree (4)	Somewhat disagree (5)	Disagree (6)	Strongly disagree (7)
I trust the online website to do the job right (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I trust the online website (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that the online website is trustworthy (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4 Please indicate your agreement with the following

	Strongly agree (1)	Agree (2)	Somewhat agree (3)	Neither agree nor disagree (4)	Somewhat disagree (5)	Disagree (6)	Strongly disagree (7)
I am very likely to make a purchase through an online website (Q3_1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would use my credit card to purchase through an online website (Q3_2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will continue to purchase online in the future (Q3_3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Please select "Strongly Agree" to continue (Q3_4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Skip To: End of Survey If Please indicate your agreement with the following! = I am very likely to make a purchase through an online website

Q5 When I shop online, I have a sense of

	Strongly agree (1)	Agree (2)	Somewhat agree (3)	Neither agree nor disagree (4)	Somewhat disagree (5)	Disagree (6)	Strongly disagree (7)
Human contact (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exclusiveness (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sociability (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Warmth (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q6

Please indicate your agreement with the following.

	Strongly agree (1)	Agree (2)	Somewhat agree (3)	Neither agree nor disagree (4)	Somewhat disagree (5)	Disagree (6)	Strongly disagree (7)
Records of transactions could be sold to third parties (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal information submitted could be misused (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal information could be made available to unknown individuals or companies without your knowledge (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Q7 I have confidence that

	Strongly agree (1)	Agree (2)	Somewhat agree (3)	Neither agree nor disagree (4)	Somewhat disagree (5)	Disagree (6)	Strongly disagree (7)
A mechanism is in place to protect me against potential risks while purchasing online (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Third party internet compliance company (Safe Trader, TRUSTe) to protect me against potential risks while purchasing online (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My personal information will not be leaked while purchasing online (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q8

When using the Internet, you are often asked to provide personal information and payment details, such as credit card or bank account. How comfortable are you in providing this information when?

	Extremely comfortable (1)	Somewhat comfortable (2)	Neither comfortable nor uncomfortable (3)	Somewhat uncomfortable (4)	Extremely uncomfortable (5)
Purchasing goods (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Retrieving information (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buying services (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q9

Please indicate your agreement with the following statement.

	Strongly agree (1)	Agree (2)	Somewhat agree (3)	Neither agree nor disagree (4)	Somewhat disagree (5)	Disagree (6)	Strongly disagree (7)
People have many worries about the future (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People have emotional resistance to change (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People fear ambiguous situations and unfamiliar risks (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People have many worries about money (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q10

Please indicate your agreement with the following statement

	Always (1)	Most of the time (2)	About half the time (3)	Sometimes (4)	Never (5)
I'd rather depend on myself than others. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I rely on myself most of the time; I rarely rely on others. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often do "my own thing." (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Please select "Always" to continue (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Skip To: End of Survey If Please indicate your agreement with the following statement !=

Q18 Any comments you wish to have.

End of Block: Introduction and Consent

Start of Block: Block 1

Thank you for completing the survey.
Please press on the submit button to end the survey.

THANK YOU

End of Block: Block 1

REFERENCES

- Bai, Y., Yao, Z., & Dou, Y.-F. (2015). Effect of social commerce factors on user purchase behavior: An empirical investigation from renren. com. *International Journal of Information Management*, 35(5), 538–550.
- Belanger, F., Hiller, J. S., & Smith, W. J. (2002). Trustworthiness in electronic commerce: the role of privacy, security, and site attributes. *The Journal of Strategic Information Systems*, 11(3–4), 245–270.
- Berkowitz, J., & O'Brien, J. (2002). How accurate are value-at-risk models at commercial banks? *The Journal of Finance*, 57(3), 1093–1111.
- Beyari, H., & Abareshi, A. (2018). The Interaction of Trust and Social Influence Factors in the Social Commerce Environment. In *International Conference of Reliable Information and Communication Technology* (pp. 931–944). Springer.
- Blau, P. M. (1964). *Exchange and Power in Social Life* Wiley New York Google Scholar.
- Bock, G.-W., Lee, J., Kuan, H.-H., & Kim, J.-H. (2012). The progression of online trust in the multi-channel retailer context and the role of product uncertainty. *Decision Support Systems*, 53(1), 97–107.
- Brengman, M., & Karimov, F. P. (2012). The effect of web communities on consumers' initial trust in B2C e-commerce websites. *Management Research Review*, 35(9), 791–817.
- Chang, H.-J., Eckman, M., & Yan, R.-N. (2011). Application of the Stimulus-Organism-Response model to the retail environment: the role of hedonic motivation in impulse buying behavior. *The International Review of Retail, Distribution and Consumer Research*, 21(3), 233–249.

- Chen, J., & Shen, X.-L. (2015). Consumers' decisions in social commerce context: An empirical investigation. *Decision Support Systems*, 79, 55–64.
- Cheung, C. M., Chiu, P.-Y., & Lee, M. K. (2011). Online social networks: Why do students use facebook? *Computers in Human Behavior*, 27(4), 1337–1343.
- Cheung, C. M., & Lee, M. K. (2006). Understanding consumer trust in Internet shopping: A multidisciplinary approach. *Journal of the American Society for Information Science and Technology*, 57(4), 479–492.
- Chin, W. W., Marcolin, B. L., & Newsted, P. R. (2003). A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. *Information Systems Research*, 14(2), 189–217.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112(1), 155.
- Cronbach, L. J., & Meehl, P. E. (1955). Construct validity in psychological tests. *Psychological Bulletin*, 52(4), 281.
- Culnan, M. J., & Armstrong, P. K. (1999). Information privacy concerns, procedural fairness, and impersonal trust: An empirical investigation. *Organization Science*, 10(1), 104–115.
- Delafruez, N., Paim, L. H., & Khatibi, A. (2011). Understanding consumers internet purchase intention in Malaysia. *African Journal of Business Management*, 5(7), 2837–2846.
- Dinev, T., & Hart, P. (2006). An extended privacy calculus model for e-commerce transactions. *Information Systems Research*, 17(1), 61–80.
- Dinev, T., Hart, P., & Mullen, M. R. (2008). Internet privacy concerns and beliefs about government surveillance—An empirical investigation. *The Journal of Strategic Information Systems*, 17(3), 214–233.

E-commerce in Canada - Statistics & Facts | Statista - Google Search. (n.d.). Retrieved February 6, 2019, from

https://www.google.ca/search?biw=1517&bih=730&ei=aB1bXKKUDtCOtQWO34K4Dw&q=E-commerce+in+Canada+-+Statistics+%26+Facts+%7C+Statista&oq=E-commerce+in+Canada+-+Statistics+%26+Facts+%7C+Statista&gs_l=psy-ab.3...29360.29360..30912...0.0..0.223.223.2-1.....0....2j1..gws-wiz.....0i71.lVTl4tv8aCE

E-commerce in the United States - Statistics & Facts | Statista - Google Search. (n.d.). Retrieved February 6, 2019, from

https://www.google.ca/search?biw=1517&bih=730&ei=WSFbXKC3GuuMtgXwhpPgAg&q=E-commerce+in+the+United+States+-+Statistics+%26+Facts+%7C+Statista&oq=E-commerce+in+the+United+States+-+Statistics+%26+Facts+%7C+Statista&gs_l=psy-ab.3...15079.15079..16220...0.0..0.97.97.1.....0....2j1..gws-wiz.....0i71.aHukIBb6Uf8

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1–4.

Fang, Y., Qureshi, I., Sun, H., McCole, P., Ramsey, E., & Lim, K. H. (2014). Trust, Satisfaction, and Online Repurchase Intention: The Moderating Role of Perceived Effectiveness of E-Commerce Institutional Mechanisms. *Mis Quarterly*, 38(2).

Featherman, M. S., & Hajli, N. (2016). Self-service technologies and e-services risks in social commerce era. *Journal of Business Ethics*, 139(2), 251–269.

Flavián, C., & Guinalíu, M. (2006). Consumer trust, perceived security and privacy policy: three basic elements of loyalty to a web site. *Industrial Management & Data Systems*, 106(5), 601–620.

- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 39–50.
- Furnell, S. (2004). E-commerce security: a question of trust. *Computer Fraud & Security*, 2004(10), 10–14.
- Gao, W., Liu, Y., Liu, Z., & Li, J. (2018). How does presence influence purchase intention in online shopping markets? An explanation based on self-determination theory. *Behaviour & Information Technology*, 1–14.
- Gefen, D. (2000). E-commerce: the role of familiarity and trust. *Omega*, 28(6), 725–737.
- Gefen, D. (2002). Reflections on the dimensions of trust and trustworthiness among online consumers. *ACM SIGMIS Database: The DATABASE for Advances in Information Systems*, 33(3), 38–53.
- Gefen, D., & Straub, D. (2003). Managing user trust in B2C e-services. *E-Service*, 2(2), 7–24.
- Gefen, D., Straub, D., & Boudreau, M.-C. (2000). Structural equation modeling and regression: Guidelines for research practice. *Communications of the Association for Information Systems*, 4(1), 7.
- Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online shopping: an integrated model. *MIS quarterly*, 27(1), 51-90.
- Gefen, D., & Straub, D. W. (2004a). Consumer trust in B2C e-Commerce and the importance of social presence: experiments in e-Products and e-Services. *Omega*, 32(6), 407–424.
- Gefen, D., & Straub, D. W. (2004b). Consumer trust in B2C e-Commerce and the importance of social presence: experiments in e-Products and e-Services. *Omega*, 32(6), 407–424.
- Global Ecommerce: Statistics and International Growth Trends [Infographic]. (n.d.). Retrieved April 23, 2018, from <https://www.shopify.com/enterprise/global-ecommerce-statistics>

- Hair Jr, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage Publications.
- Hajli, M. N. (2014a). A study of the impact of social media on consumers. *International Journal of Market Research*, 56(3), 387–404.
- Hajli, M. N. (2014b). The role of social support on relationship quality and social commerce. *Technological Forecasting and Social Change*, 87, 17–27.
- Hajli, N. (2015). Social commerce constructs and consumer's intention to buy. *International Journal of Information Management*, 35(2), 183–191.
- Hajli, N., & Lin, X. (2016). Exploring the security of information sharing on social networking sites: The role of perceived control of information. *Journal of Business Ethics*, 133(1), 111–123.
- Hajli, N., Lin, X., Featherman, M., & Wang, Y. (2014). Social word of mouth: How trust develops in the market. *International Journal of Market Research*, 56(5), 673–689.
- Hajli, N., Sims, J., Zadeh, A. H., & Richard, M.-O. (2017). A social commerce investigation of the role of trust in a social networking site on purchase intentions. *Journal of Business Research*, 71, 133–141.
- Han, B. O., & Windsor, J. (2011a). User's willingness to pay on social network sites. *Journal of Computer Information Systems*, 51(4), 31–40.
- Han, B. O., & Windsor, J. (2011b). User's willingness to pay on social network sites. *Journal of Computer Information Systems*, 51(4), 31–40.
- Hargadon, A. B., & Bechky, B. A. (2006). When collections of creatives become creative collectives: A field study of problem solving at work. *Organization Science*, 17(4), 484–500.

- Hart, P., & Saunders, C. (1997). Power and trust: Critical factors in the adoption and use of electronic data interchange. *Organization Science*, 8(1), 23–42.
- Hassan, M., Iqbal, Z., & Khanum, B. (2018). The Role of Trust and Social Presence in Social Commerce Purchase Intention. *Pakistan Journal of Commerce & Social Sciences*, 12(1).
- Hassanein, K., & Head, M. (2005). The impact of infusing social presence in the web interface: An investigation across product types. *International Journal of Electronic Commerce*, 10(2), 31–55.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135.
- Hoffman, D. L., Novak, T. P., & Peralta, M. (1999). Building consumer trust online. *Communications of the ACM*, 42(4), 80–85.
- Huang, Z., & Benyoucef, M. (2013). From e-commerce to social commerce: A close look at design features. *Electronic Commerce Research and Applications*, 12(4), 246–259.
- Kim, D. J., Ferrin, D. L., & Rao, H. R. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decision Support Systems*, 44(2), 544–564.
- Kim, J., & Lennon, S. J. (2013). Effects of reputation and website quality on online consumers' emotion, perceived risk and purchase intention: Based on the stimulus-organism-response model. *Journal of Research in Interactive Marketing*, 7(1), 33–56.
- Kokolakis, S. (2017). Privacy attitudes and privacy behaviour: A review of current research on the privacy paradox phenomenon. *Computers & Security*, 64, 122–134.

- Lai, L. S., & Turban, E. (2008). Groups formation and operations in the Web 2.0 environment and social networks. *Group Decision and Negotiation*, 17(5), 387–402.
- Lee, M. K., & Turban, E. (2001). A trust model for consumer internet shopping. *International Journal of Electronic Commerce*, 6(1), 75–91.
- Liang, T.-P., & Turban, E. (2011). Introduction to the special issue social commerce: a research framework for social commerce. *International Journal of Electronic Commerce*, 16(2), 5–14.
- Lu, B., Fan, W., & Zhou, M. (2016). Social presence, trust, and social commerce purchase intention: An empirical research. *Computers in Human Behavior*, 56, 225–237.
- Margulis, S. T. (2003). Privacy as a social issue and behavioral concept. *Journal of Social Issues*, 59(2), 243–261.
- McKnight, D. H., Choudhury, V., & Kacmar, C. (2002). Developing and validating trust measures for e-commerce: An integrative typology. *Information Systems Research*, 13(3), 334–359.
- Mehrabian, A., & Russell, J. A. (1974). The basic emotional impact of environments. *Perceptual and Motor Skills*, 38(1), 283–301.
- Munawar, M., Hassanein, K., & Head, M. (2017). Understanding the Role of Herd Behaviour and Homophily in Social Commerce.
- Naylor, R. W., Lamberton, C. P., & West, P. M. (2012). Beyond the “like” button: The impact of mere virtual presence on brand evaluations and purchase intentions in social media settings. *Journal of Marketing*, 76(6), 105–120.

- Nazir, S., Tayyab, A., Sajid, A., ur Rashid, H., & Javed, I. (2012). How online shopping is affecting consumers buying behavior in Pakistan? *International Journal of Computer Science Issues (IJCSI)*, 9(3), 486.
- Park, C.-H., & Kim, Y.-G. (2003). A framework of dynamic CRM: linking marketing with information strategy. *Business Process Management Journal*, 9(5), 652–671.
- Pavlou, P. A. (2003). Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model. *International Journal of Electronic Commerce*, 7(3), 101–134.
- Piller, F. T., & Walcher, D. (2006). Toolkits for idea competitions: a novel method to integrate users in new product development. *R&d Management*, 36(3), 307–318.
- Policy, U. C. for C. (2003). *The UCLA Internet Report, Surveying the Digital Future*. UCLA Center for Communication Policy.
- Qureshi, I., Fang, Y., Ramsey, E., McCole, P., Ibbotson, P., & Compeau, D. (2009). Understanding online customer repurchasing intention and the mediating role of trust—an empirical investigation in two developed countries. *European Journal of Information Systems*, 18(3), 205–222.
- Ridings, C. M., & Gefen, D. (2004). Virtual community attraction: Why people hang out online. *Journal of Computer-Mediated Communication*, 10(1), JCMC10110.
- Rindfleisch, T. C. (1997). Privacy, information technology, and health care. *Communications of the ACM*, 40(8), 92–100.
- Salisbury, W. D., Pearson, R. A., Pearson, A. W., & Miller, D. W. (2001). Perceived security and World Wide Web purchase intention. *Industrial Management & Data Systems*, 101(4), 165–177.

- Santos, J. R. A. (1999). Cronbach's alpha: A tool for assessing the reliability of scales. *Journal of Extension*, 37(2), 1–5.
- Shen, J. (2012). Social comparison, social presence, and enjoyment in the acceptance of social shopping websites. *Journal of Electronic Commerce Research*, 13(3), 198.
- Short, J., Williams, E., & Christie, B. (1976). The social psychology of telecommunications.
- Udo, G. J. (2001). Privacy and security concerns as major barriers for e-commerce: a survey study. *Information Management & Computer Security*, 9(4), 165–174.
- Wang, Y. D., & Emurian, H. H. (2005). An overview of online trust: Concepts, elements, and implications. *Computers in Human Behavior*, 21(1), 105–125.
- Williams, M. D. (2018). Social Commerce and the Mobile Platform: Payment and Security Perceptions of Potential Users. *Computers in Human Behavior*.
- Yao-bin, L., Zhong-chun, D., & Jian-hong, Y. (2006). A study on evaluation items and its application for B2C e-commerce trust. In *Management Science and Engineering, 2006. ICMSE'06. 2006 International Conference on* (pp. 13–18). IEEE.
- Yoh, E., Damhorst, M. L., Sapp, S., & Laczniak, R. (2003). Consumer adoption of the Internet: The case of apparel shopping. *Psychology & Marketing*, 20(12), 1095–1118.
- Yoon, S.-J. (2002). The antecedents and consequences of trust in online-purchase decisions. *Journal of Interactive Marketing*, 16(2), 47–63.
- Zhang, K. Z., & Benyoucef, M. (2016). Consumer behavior in social commerce: A literature review. *Decision Support Systems*, 86, 95–108.
- Zucker, L. G. (1986). Production of trust: Institutional sources of economic structure, 1840–1920. *Research in Organizational Behavior*.