The Study of Social Commerce in Generation Z Context: The Role of Social Support and Privacy Risk

The Study of Social Commerce on Generation Z Context: The Role of Social Support and Privacy Risk

Abstract

The recent proliferation of social media platforms has witnessed a growth in social commerce by using social media to facilitate interactivity between customers and vendors. While emergent studies on social commerce are growing, their focus tends to be on millennials and cross-age groups. Given the growth of digital natives in shaping the online shopping experience of the future, we deemed an application to Generation Z necessary and overdue. We draw on the existing literature and develop a framework to understand social commerce dynamics for digital natives. We employ PLS and CB-SEM to test our proposed model. Our findings demonstrate the importance of social commerce information sharing activities in facilitating social support, a sense of warmth and belongingness, and online trust for Generation Z platform users. We also investigate the roles of online trust and perceived risk on intention to purchase and find support for both relationships. Finally, we discuss the findings in terms of theoretical and managerial contributions and conclude the study with limitations and future research directions.

***Keywords**:* Social commerce; Social support; Information sharing; Trust; Perceived risk; Generation Z

Introduction

In comparison to e-commerce, favoured by millennials, online consumption by digital natives, or Generation Z (Gen Z) (born between 1997 and 2012), is characterised by social commerce (Kastenholz, 2021). Social commerce is, therefore, an emerging research area rooted in Web 2.0 and emergent technologies (Lin, Li and Wang, 2017). Specifically, it refers to the dynamic nature of online sharing of knowledge, experiences, and information "providing a supportive environment in an online context" (Hajli, 2014, p. 17). Therefore, while the focus of e-commerce traditionally has been on one-to-one interactions to create value, social commerce seeks to understand the dynamics embedded within online communities and their conversations (Hajli et al, 2017; Huang and Benyoucef, 2013). The behavioural shift from e- to s-commerce is reflected in the growth of social networking sites (SNS), such as YouTube and Facebook, and more recently, TikTok, Instagram, and Pinterest. Such SNSs provide platforms for empowering customers, with almost unlimited scope for consumer generated content (CGC), and consequently, a new wave of consumer-provider knowledge management platforms. In the social commerce era, digital natives share their knowledge, experiences, and information about the products and services with peers, providing a supportive environment in an online context. These advancements make digital natives part of a value creation process for businesses through the social support they provide on the internet. Social support contains informational and emotional supports.

One recent survey found that around 90% of Gen Z in the United States are reported about mental health issues, which is higher than previous generations (Bethune, 2019). Furthermore, research also found that Gen Zers show higher level of concern and stress from SNS than previous generations (Portell, 2021). Given increasing concerns on the psychological vulnerabilities of Gen Zers, from low self-esteem (Chaplin, Hill & John, 2014) to heightened loneliness (Gentina & Chen, 2019), understanding the role of social support in

facilitating Gen Zer's online dynamics is central. While social support's function in enhancing online social commerce and trust (e.g., Hajli et al, 2017) has previously validated, what role, if any, it plays in facilitating Gen Zers' online decision making remains unexplored. Despite its importance, there remains a paucity of research focusing on digital natives' interaction with new-age technologies and the developmental psychology aspects of this process (Priporas et al., 2017; Duffett, 2017; Kesharwani, 2020). This is further surprising given the proliferation of social commerce is intrinsically tied to the growth of Gen Zers (Kastenholz, 2021), and the future of online shopping is likely to be most shaped by this generation (McKinsey, 2020). In investigating the role of social support in Gen Zers' purchase decision making, we make several contributions to the existing literature.

First, and although a growing number of studies have recognised how Gen Zers may engage in online self-disclosure activities to compensate for loneliness and low self-esteem (e.g. Gentina & Chen, 2019), we know less about how social support functions to facilitate social trust and drive Gen Zers' purchase activities. Identifying and isolating the forms of social support available to Gen Zers may serve as essential tools to leverage Gen Zers towards a more trusting social commerce experience and thus facilitate decision making. Therefore, and while social support has been documented as a key antecedent of online trust and purchase decision making, its role in leveraging the same for Gen Z remains unexplored. Given the heightened need for coping strategies in Gen Z to manage loneliness (Gentina and Chen, 2019) and low self-esteem (Chaplin, Hill & John, 2014), we would anticipate social support to provide an important ameliorating role in fostering greater communal trust and consequently in facilitating decision making. Second, and underpinning social support and social trust, the role of social information sharing activities remains unexplored for digital natives. Yet, the proliferation of these in SNSs has witnessed continued growth. Third, given that digital natives tend to be more risk-averse in attitudes and behaviours and further

compounded by rising concerns of online risk, exploring the role of personal risk on purchase intention is also warranted. While the effects of personal risk on online purchase intentions have been investigated extensively, less is known on the impact of personal risk on purchase intentions for Gen Zers.

Literature Review

Generation Z and Social Commerce

Gen Zers, or those typically born after 1996 (Parker & Igielnik, 2020) are regarded as the first digital native generation (hence their interchangeable usage in this study), since they've never known a time when ordering food online, messaging friends or Facetiming their family was not possible (Kastenholz, 2021). Indeed, as Parker and Igielnik, (2020) note, "they have little or no memory of the world as it existed before smartphones." Born into an age of online devices, they are the "first generation active and available for almost 24 hours a day" (Kastenholz, 2021). Not surprisingly, for Gen Zers, the distinction between offline and online is blurry. One can seamlessly shift between the two, and therefore their identities are intrinsically tied to the digital. The most obvious implication of this digitalisation is the increased amount of screen time spent by Gen Zers and its implications.

As Twenge's (2014) extensive and yet unfortunate validation infers, while iGen - a synonym for Gen Z - may be more confident, assertive, and inclusive, they are also "more miserable than ever before." Twenge's (2014, 2018) comprehensive inter-generational psychographics research, covering a sample of 7 million teenagers across the States, points to a mixed picture. On the one hand, Gen Zers is more "comfortable in their bedrooms than in a car or at a party" and therefore physically safer than any generation has been, with, for instance, reduced likelihood of being involved in car accidents and succumbing to alcohol's "attendant ills." However, as Twenge (2018) notes, "psychologically…they are more vulnerable than Millennials were". Indeed, Twenge (2018) cautions, "It's not an exaggeration

to describe iGen as being on the brink of the worst mental-health crisis in decades. Much of this deterioration can be traced to their phones".

Indeed, numerous studies have validated the general effects of increased screen time on mental health indicators. For instance, steers, Wickham and Acitelli (2014) found spending more time on Facebook leads to increased social comparison, which subsequently is associated with more significant depressive symptoms. Sagiogluo and Greitemeyer (2014) found Facebook usage negatively correlates with mood, which was predicted by a feeling of having wasted time or not having done anything meaningful during engagement time with Facebook. Moeller, Powers, and Roberts (2012) asked 1000 students across five continents to give up all media, including texting, for 24 hours and found many students exhibited withdrawal symptoms such as craving and anxiety. Several studies (e.g., Caplan, 2007; Beard, 2005) have described "internet addiction" as similar to pathological gambling addiction, with symptoms including, but not limited to "to preoccupation with the Internet, the need to use the Internet with increasing amounts of time to achieve satisfaction, an inability to cut back Internet use, depressed, or irritable mood when attempting to cut back Internet use, longer use of the Internet than intended, and use of the Internet to escape from problems" (Lister-Landman, Domoff, & Dubow, 2015, p. 2).

Compounding these problems is the heightened uncertainty of Generation Z (Priporas, Stylos & Fotiadis, 2017), a characteristic further amplified during Covid-19 (Parker and Igielnik, 2020). Unlike Millennials who came of age during the post-2008 recession, the "world of opportunities" Gen Zers was looking forward to "now peers into an uncertain future." In comparison to Millennials, Gen Xers, and Baby Boomers, Gen Zers had higher incidences of reporting a loss of jobs during the pandemic than either for themselves or someone in their families (Doherty, Kiley & Asheer, 2020). A strong case, therefore, exists for examining some of the social support dynamics for digital natives in SNS. Social support

has a direct effect on mediating stress in inter-relationships. Therefore, it provides an important avenue for ensuring the experience digital natives have in online contexts is as seamless as possible.

Social Support and Social Commerce

Social support has a rich historical trajectory in psychology studies (e.g., Cobb, 1976; Barrera & Ainley, 1983; Barrera, 1986, Vangelisti, 2009) and more recently in the context of s-commerce (e.g., Hajli, 2014; Liang et al, 2011). At its most fundamental, social support theory emerged from a need to recognise the role social relationships play in moderating psychological stress and well-being (Vangelisti, 2009). As Cobb (1976) originally conceived, this perceived support can be understood as feelings in relation to being answered, supported, and cared for. A psychology-based perspective on social support, therefore, emphasises the type and amount of support individuals perceive from their social networks (Sarason, 2013). The inclusion of social support in social commerce, facilitating and enhancing online user relationship quality and trust, and subsequently, loyalty has also gained traction (Hajli, 2014; Liang et al, 2011). After all, success in social commerce is characterised by adaptive conversation and community (Huang & Benyoucef, 2013) and therefore predisposes users to a *metaverse* of social interactions and consequential support. The logic of social support underpinning social commerce is thus based on the premise that the former facilitates the latter, i.e., the greater the social support in an online community network, the greater the propensity for sharing supportive information with others (Liang et al, 2011). As Hajli (2014, p. 19) elaborates, "Users on these platforms provide support to each other…the social interactions of individuals through social media facilitate and influence their decisions in purchase process".

Although multi-faceted at its most fundamental, social support essentially provides informational and emotional support (Wellman et al, 1996; Wellman and Wortley, 1990). Similarly, the same types of social support capital operate within social commerce to enhance trust, commitment, and satisfaction in purchase decisions (Hajli, 2014). While emotional support enhances a sense of inclusion and belongingness within the community, informational support compliments this inclusion by providing additional reassurance and trust (Crocker & Canvello, 2008). Whether informational or emotive, support capital can increase the intention to conduct commercial online decisions (Liang et al, 2011). While existing studies have validated the role of social support in enhancing online relationship quality and social commerce intentions (Liang et al, 2011; Hajli, 2014, etc), these studies tend to explore perceptions of millennial consumers (Liang et al, 2011) or cross-age samples (Hajli, 2014).

To date, few studies have investigated the dynamics of social support within a social commerce context for Gen Z, and yet as discussed earlier, Gen Zers may be characterised by a heightened need for social support and is set to shape the future of online shopping. Bai, Yao and Dou's (2015) average sample age of 27 years comes closest to measuring Gen Zers' perceptions and finds a positive and significant association between social support and purchase behaviours (*beta* = .433). However, while these studies provide an initial foray in understanding the role of social support within social commerce, several knowledge gaps remain in understanding how Gen Zers engages with social commerce, formulated below as our study hypotheses and conceptual framework.

HYPOTHESIS DEVELOPMENT AND CONCEPTUAL MODEL

Social commerce information sharing:

The ability of online consumers to engage, interact and share information with other users, i.e., engage in social commerce information sharing activities, is believed to increase the warmth and social desirability of the SNS (Hajli et al, 2017). The more intense the frequency and depth of mutual platform sharing, the stronger the social presence or experiencing "others as psychologically present" (Hassanein & Haed, 2005, p. 31). For Kaplan and Haenlein (2010), these effects are more pronounced for interpersonal and synchronous communications than mediated and asynchronous ones. The more media enables human interactions, the greater its social presence effect (Hassanein & Haed, 2005). Therefore, personal connections via recommendations, reviews, and sharing facilitate the same effect since they enable customers to engage in personal interactions (Piller & Walcher, 2006). Social presence, in turn, leads to social trust (Hajli, 2015). Social trust works by sanctioning systems as more reliable (Mutz, 2005), and therefore consumer-based reviews and ratings are viewed as more trustworthy (Park et al, 2007; Ba & Pavlou, 2002). Exchange of both verbal and non-verbal forms of mutual interaction facilitates social support (Pfeil et al, 2009). Therefore, specific sharing activities such as rating, reviews, rankings, recommendations, comments, sharing activities are essential incubators of social support information sharing (Hajli, 2017; Baghdadi, 2016). Therefore, social support information sharing is central in leveraging greater participation in social commerce (Li et al, 2018). Moreover, since social commerce information sharing requires a predisposition to disclose personal information, i.e., mutual trust (Bilgihan et al, 2014), it has a spillover effect on generating trust for the e-vendor (Hajli, 2017). Therefore, we hypothesise that:

Hypothesis 1: Social commerce information sharing activities have a positive effect on social support.

Hypothesis 2: Social commerce information sharing activities has a positive effect on online trust.

Social support

Since trust deals with consumer willingness to become vulnerable to the actions of vendors, any intervention to reduce this vulnerability should likely facilitate the fostering of trust (Gefen et al, 2003). Several studies have validated the positive influence of social support on online trust (e.g., Hajli, 2014; Zhang et al, 2014; Ben Yahia et al, 2018). The primary forms of social support are information and emotional support (Ridings & Gefen, 2004), through mutual supportive structures, which subsequently encourage online consumers to trust others more (Hajli, 2014; Ben Yahia, 2018). A key challenge for online vendors is to instil integrity and perceived benevolence, two key components of online trust in consumers (Gefen, 2002). Social support may thus provide a facilitating culture that attenuates integrity and benevolence. Informational support, from suggestions, for instance, may help alleviate uncertainty and therefore foster stronger integrity. Emotional support, through mutual expressions of care, concern, and empathy, for instance, may facilitate a sense of belongingness in the platform and thus spill over into trust (Hajli, 2014). Combined, both types of social support may accumulate to a sense of mutuality (Ben Yahia et al, 2018), thus fostering a supportive environment for social commerce to ensue (Zhang et al, 2014). Therefore, we hypothesise:

Hypothesis 3: Social support has a positive influence on online trust

Perceived risk on intention to purchase

Perceived risk, or uncertainty and the consequences associated with one's actions (Bauer, 1960; Cunningham, 1967), not unlike a trust, also amplifies in online contexts (Johnson et al, 2008; Hoffman et al, 1999; Rehman et al, 2019; Maseeh et al, 2021). The spatial and temporal distance between online buyers and shoppers increases (Tan, 1999) which heighten the

ambiguity of interactions (Johnson et al, 2008). Although the perceived risk is a multi-dimensional construct (Chiu et al, 2014), within an online context study have found perceptions related to privacy concerns or control and protection of personal information, form an important underlying factor for perceived online risk (Liao et al, 2011). Indeed, risk related to privacy concerns has attracted considerable concern and attention from scholarly enquiry (e.g. Miyazaki & Fernandez, 2000; Van Slyke et al, 2006; Eastlick et al., 2006; Brown and Muchira, 2004, etc). The consensus appears to be that perceived risk, mainly related to privacy concerns, has a negative effect on purchase intentions (Liao et al, 2011). The direct effects of privacy concern are thought to operate via stimulating protection intention or the need to remain vigilant from negative outcomes (Yang & Wang, 2009). Given that Gen Zers is more prone to risk avoidance (Priporas, Stylos & Fotiadis, 2017; Parker & Igielnik, 2020), we, therefore, hypothesise:

Hypothesis 4: Perceived privacy risk has a negative effect on the intention to purchase.

Trust

Developing online trust is regarded as one of the key facilitators of consumer participation in e-commerce (Gefen, 2002; Reichheld & Schefter, 2000; Chen & Dibb, 2010). The importance of trust is amplified in online contexts given the increased ambiguity of technology-based services (Johnson et al, 2008) and specifically the rise of online consumer fraud (academic reference). Online social commerce is thus less verifiable and controllable (Gefen, 2000; Reichheld & Schefter, 2000). Trust helps overcome the psychological barriers related to this additional layer of ambiguity in online contexts (Pavlou & Fygenson, 2006; Ben Yahia et al, 2018). Indeed, studies have validated the positive effects of online trust on purchase intention (e.g. Hadjli et al, 2017; Kim and Park, 2013). What has emerged is the importance of trust in social networking sites relative to trust towards an e-vendor (Hajli et al, 2017). Therefore, consumers evaluate trust towards e-vendors based on their trust in an SNS's credibility and

benevolence. Trust also serves to foster familiarity, which has been found to positively predict purchase intentions (Laroche et al, 1996), and reduce complexity in decision making in an online environment (Gefen et al, 2003a; Martínez-López et al, 2015). Despite this consensus, no previous study has validated the same relationship for Gen Z social commerce. Given Gen Z's heightened uncertainty, we expect a strong and positive effect of online trust on purchase intention. Therefore, we hypothesise:

Hypothesis 5: Online trust has a positive effect on the intention to purchase.

The conceptual model in Fig 1 summarises these hypotheses.

*********See Fig 1*********

Methodology

This section describes specific approaches to examine our conceptual model and hypotheses. We first explain our data collection method and sample characteristics. Next, measurement instruments in our empirical model are carefully discussed. Finally, we provide detailed information about data analysis. In this study, we used both Covariance based Structural Equation Modeling (CB-SEM) and Partial Least Squares based Structural Equation Modeling (PLS-SEM) as our data analysis methods. This selection is addressed the call from Dash and Paul (2021) that a composite-based model needs to be tested in both methods. Meanwhile, complex behaviour research models should be tested in both methods to have a fair and clear comparison.

Data Collection and Sample

We collect our research data from an online survey. In order to study the various facets of how customers perceive social commerce context and privacy issues, we provided a well-structured and context-based questionnaire with 21 questions. This approach servers as a reasonable basis for the study and a more comprehensive understanding of customers' online

purchase behaviours in social commerce context. It allows customers to specify their social support and correctly reflect their attitudes and opinions towards purchasing a new product online.

Specifically, our primary research participants are online customers who have experience in an online community. In order to maintain the validity and reliability of the survey, we made sure to design the questions for our respondents carefully. At the beginning of the survey, we provide basic descriptions of online communities and social commerce. This can help participants better understand the concept of social commerce and online community, even though they have experienced it. Next, we guided them to be aware of changes in their surroundings and their attitudes toward themselves when interacting with an online community. We told the respondents that we wanted to know how new product online purchase behaviour was perceived in social commerce, trust beliefs, and privacy concerns. We also used some screening questions (e.g., "I actively involve in the online community") to ensure that the participants have experience in an online community. If the participants choose they have no experience with an online community, we kindly informed them to exist the survey. We also utilise attention checks and questions randomisation approaches to ensure the survey's validity. After the careful screening (e.g., removing missing data and those responses that were not conscientious), the final sample consisted of 195 participants.

Measurement Items

In order to maintain the reliability of all constructs in the model, we adapted measurements from previous well-established ones and made minor adjustments to fit in our research contexts. According to the social support theory, social support in a social commerce context can be divided into emotional support and informational support. Correspondingly, we adapted social support measurements from Hajli (2014), which perfectly captures both

emotional support and informational support in the social commerce context. It is measured through items as "When faced with difficulties, some people on this online community comforted and encouraged me (emotional support)." and "When I encountered a problem, some people on this online community would give me information to help me overcome the problem (informational support)."

The measurement for trust beliefs (this study conceptualises trust in online communities) was adapted from Gefen et al. (2003) and made adjustments in the social commerce context. One example of an item is "The performance of this online community always meets my expectations." We also adapted items from Hajli et al. (2017) to measure intention to buy a new product (e.g., "If my friends ask for advice about a product in this online community, I intend on sharing it with them.") and social commerce information sharing (example item as "I will ask my friends on forums and communities to provide me with their suggestions before I go shopping for a new product."). A five-point Likert scale was used to develop items into statements ranging from 1 (strongly disagree) to 5 (strongly agree). All of the items used to measure the constructs are reflective.

Data Analysis

Structural equation modelling (SEM) is used to analyse empirical models. We use the SmartPLS 3.3.3 software to investigate and examine our hypotheses. SEM is defined as a combination of two statistical methods of confirmatory factor analyses and regression analyses (Fan et al. 2016). Previous research has confirmed that the SEM method is perfect for analysing complex regression models with direct and indirect effects among latent variables simultaneously (Hair et al. 2013). We are using both CB-SEM and PLS-SEM to investigate our hypotheses. The significant difference between PLS-SEM and CB-SEM is that PLS-SEM focuses on the composite factor model, while CB-SEM is based on the common factor model

(Hair Jr et al. 2016). From the perspective of statistics, PLS-SEM accounts for total variance and uses it to investigate parameters.

On the contrary, CB-SEM only focuses on common variance (Hair et al. 2019). The primary statistical goal of PLS-SEM is to maximise the variance of the dependent variable. In contrast, CB-SEM is to minimise the difference between the sample covariance (Hair et al. 2019). Though these two approaches have distinct differences, prior research has suggested that combing both methods to investigate a complex research model is essential (Dash and Paul 2021). Accordingly, this study can provide robust and fair results by comparing and combining both approaches through data analysis.

Measurement Model

All the collected data are subjected to investigate reliability and validity at first. Appendix Table A1 shows that all factor loadings were more than 0.7, which means the model had a good convergent validity (Gefen & Straub 2005; Shi & Maydeu-Olivares 2020). Besides, Appendix Table A1 shows all the results of composite reliability, average variance extracted (AVE), and Cronbach's Alpha. As all values of AVE more than 0.5 for each constructor, all value of composite reliability larger than 0.7 for each indicator, and all values of Cronbach's Alpha more than 0.7, we can conclude that all the constructs had good reliability and appropriate convergent validity (Bagozzi & Yi 1988).

In order to investigate discriminant validity, we examined loadings, cross-loadings, and correlations of all constructs. Our results show that these items have higher loadings on their respective constructs than on other constructs. Furthermore, table A2 in Appendix confirms that the correlation between the constructs and the other constructs is lower than the square root of each construct's AVE. Based on the results, discriminant validity is acceptable.

Unidimensionality is another essential aspect that we need to examine. As all items under each construct have acceptable factor loadings (all more than 0.6), we can conclude that

there is no issue regarding unidimensionality (Hair et al. 2006). In order to examine common method variance in PLS-SEM, we checked variance inflation factor (VIF) values based on suggestions from Kock (2015), VIF is an indicator of common method bias and also an indication of pathological collinearity. Appendix Table A1 shows that all VIF values of constructs are lower than 5, which indicates that common method variance and pathological collinearity is not a problem in our study. Meanwhile, based on the suggested threshold from Hair Jr et al. (2021), there is no multicollinearity issue among variables of this study. As a result, we concluded that our study has no unidimensionality issue, common method bias issue, pathological collinearity issue, or multicollinearity issue.

Structural Model with PLS-SEM

We utilised a bootstrapping resampling method to approximate the path coefficients. Figure 2 shows all the standardised path coefficients results. The results illustrate that 39.5% of the variances of intentions to buy were explained by this research model, indicating that this study has a substantive model as the R-squared of dependent variable larger than 0.10 (Falk and Miller 1992).

According to the results, we found that all the relationships are significant. Specifically, we found that social commerce information sharing activities were positively associated with social support and trust in online communities. Thus, our hypothesis 1 ($\beta = .595$, $p = 0.000$) and 2 ($\beta = .297$, $p = 0.001$) are supported. Meanwhile, we found that social support significantly and positively influenced trust in online communities ($\beta = .422$, $p = 0.000$), which indicates that our hypothesis 3 is supported. Furthermore, intention to buy was significantly influenced by perceived privacy risk and trust in online communities. Therefore, our results also support hypothesis 4 ($\beta = .149$, $p = 0.008$) and 5 ($\beta = .583$, $p = 0.000$).

-----Insert Figure 2-----

Structural Model with CB-SEM

We applied Stata SE 16.1 to examine path coefficients in our research model. Figure 3 shows all the standardised path coefficients results. All the indicators of model fit (e.g., RMSEA = 0.118, SRMR=0.130) is good.

According to the results, all the relationships are significant except for perceived privacy risk to buying intention. Specifically, we found that social commerce information sharing activities were positively associated with social support and trust in online communities. Thus, our hypothesis 1 (β = .729, p = 0.000) and 2 (β = .459, p = 0.000) are supported. Meanwhile, we found that social support significantly and positively influenced trust in online communities (β = .537, p = 0.000), which indicates that our hypothesis 3 is supported. However, intention to buy was not significantly influenced by perceived privacy risk in online communities. Also, intention to buy was significantly influenced by the trust. Therefore, our results also support hypothesis 5 (β = .989, p = 0.008) but not 4 (β = .043, p = 0.5).

-----Insert Figure 3-----

Discussion

Our study contributes to the literature by extending our knowledge of social support, social information activities, trust, and privacy concerns on purchase intentions for Gen Z consumers. Four primary pathways formed the premise of our conceptualisation: the effects of social commerce, social information sharing activities, trust and privacy concerns. Privacy concerns and trust were conceptualised as acting directly on purchase intention while social support and sharing activities through online trust. We validated our model using two alternative approaches to SEM, PLS and CB. Both types of SEM analysis found support for all hypothesised paths, with the exception of no support found for the effect of privacy concerns

using CB-SEM. Surprisingly, most prior research proposed a negative relationship between perceived privacy risk and purchase intention. Though some studies found this relationship is positive (e.g., Zhu and Kanjanamekanant, 2021), the positive effect of privacy concerns in Gen Z is more interesting. According to a recent survey, Gen Zers far less cares about their information privacy online than the older generation. They want to have more personalised and target information based on their online behaviours (Statista, 2021). In the social commerce context, it is reasonable to see the positive effect of privacy concerns on purchase behaviours, as Gen Zers wants organisations to utilise their information accurately and effectively. In line with the hypothesised relationships, support was found for the effects of trust and privacy concerns on purchase intention and the effect of social support and social information activities on online trust. The effect of social information sharing activities on social support was also supported. Given the dual role of social commerce information sharing activities on both social support and online trust, we consider this construct a foundation for creating a seamless experience for digital natives. The proliferation of platform reviews, recommendations and interaction options reinforces the importance of information sharing activities. Social engagement in an online platform is initially with strangers, and such sharing activities provide an important mechanism to break the ice and sustain relational engagement.

Theoretical Implications

Our findings corroborate existing studies investigating the relationship between social commerce constructs and online trust (e.g., Hajli, 2015; Wang et al, 2016; Kim & Park, 2013) and yet provide additional insights. We validate this relationship for digital natives and provide a more complex process. Social commerce information sharing activities have both an antecedent effect on social support and online trust. The role of social commerce information sharing activities is therefore considered a critical foundation for Gen Z. While Hajli et al

(2017) also find a positive effect of online trust on sharing activities, this relationship was weaker than the effect of sharing activities on trust found in our study and in Hajli (2015). Similarly, we find a more positive impact between online trust and intention to purchase for Gen Z (b = 0.583) than Hajli 's (2015) investigation of the same relationship for a cross-age sample (b = 0.375). Therefore, online trust is deemed vital for Gen Zers and may explain the anomaly in our study on the effects of privacy concerns. Unlike previous studies (e.g. Liao et al, 2011, Priporas, Stylos & Fotiadis, 2017), privacy concerns were found to have an anomalous positive effect on the intention to purchase. This result encourages researchers to investigate more about perceptions of privacy concerns in Gen Zers. The following questions are still pendent: Do they care about information privacy? Is there any difference between social commerce and other online platforms? What is the implication of privacy concerns of Gen Zers in various online activities? This research provides one example that future research on Gen Zers needs to pay much attention to privacy risk perceptions. Although the moderating effects of social online trust on this relationship could not be investigated, it is possible that a host of constructs may play a negative moderating effect on privacy concerns. These variables may cause consumers to trade off or compromise their vulnerability to privacy concerns (Plangger & Montecchi, 2020). It is also possible Pavlou's et al.'s (2006) scale for perceived privacy risk does not focus on vulnerability towards the specific SNS vendor, and therefore vendor specific perceived risk is not captured in our study.

Managerial Implications

Our study has multiple implications for social commerce managers. The role of online trust is widely recognised as essential in converting engagement to purchase intention. As SNS users increase their online trust, they are more likely to purchase from the site. An itinerary of interventions is available to SNS managers to manage trust by encouraging transaction safety,

communications, reputation, and ease of use (Kim and Park, 2013). However, social commerce information seeking can also be encouraged to complement these factors and underpin their organic growth. Encouraging and providing interventions that facilitate communicative participation, forums, reviews, ratings, and recommendations should facilitate mutual interaction. While familiarity with the platform was not measured in the current study (Hajli et al, 2017), information sharing activities encourage familiarity, and this is thought to reduce the perceived risk in purchase decisions. Information sharing activities similarly serve to enhance the level of familiarity. This mutual interaction can breed social support and a sense of inclusion in the SNS community, generate social trust, or act directly on social trust. The recent proliferation of animating emotive cues, such as GIF buttons and other animated reactions, serves to facilitate warmth and belongingness. Current trends to experiment with providing users with their avatars and formerly Facebook's Meta or 'metaverse' of virtual animated optional interactions are likely to play on this hyper-mediated warmth and belongingness. Providing users with mediated names, identities, and avatars that can navigate sites 'on behalf' of users facilitates the feeling of 'being there' and, therefore, inclusion. We know from recent research that SNS users trust animated and algorithmic interventions to human interaction (Kim, Giroux & Lee, 2021; Kozinets, 2021). Managers may also want to segment users based on social information seeking activities amplifying the accuracy of online behavioural segmentation.

In the social commerce context, privacy concern is always the focal factor influencing customers' online purchasing behaviours. In view of the positive relationship between perceived privacy risks and purchase intention, managers can shape insight into Gen Z's attitudes towards information privacy. We suggest enhancing the social commerce environment for Gen Zers by incorporating traditional approaches, for example, facilitating

trust, and making good use of personal data cautiously and dynamically adjusting individuals' needs via personalised information.

Limitations and Future Research Directions

Several limitations exist in our study, which has implications for further research. First, across SNS sample was employed, and yet individual SNSs may exhibit site specific dynamics. Future studies may therefore seek to explore these SNS specific dynamics. Second, we relied on a cross-sectional sample to validate our conceptual model. Experimental and longitudinal studies may provide additional insights on manipulating individual constructs across time. Third, our study was limited in the scope of the conceptual model, but additional variables, such as moderation effects of experience, habit, or relationship quality, may provide yet richer insights into the dynamics governing the world of digital natives. Fourth, our scale for perceived risk was generic to SNS rather than to SNS vendors. It would be interesting to assess the use of both operationalisations in future research to map the difference of institutional risk relative to vendor risk on purchase intention.

Conclusion

Our study explored the new stream of social commerce from the perspective of digital natives. While emergent studies on social commerce are growing, their focus tends to be on millennials and cross-age groups. Given the growth of digital natives in shaping the online shopping experience of the future, we deemed an application to Gen Z necessary and overdue. We borrowed existing constructs from the social commerce literature, namely, social support, social commerce information sharing, privacy concerns, and online trust to assess their effect on the intention to purchase. Two types of analysis were used to strengthen the validation of our conceptual model. We find strong support for the role of social support and social information sharing activities on online trust. We also find that online trust strongly affects the

intention to purchase. While our findings on perceived risk remain inconclusive, we encourage further research in exploring social commerce dynamics for understanding the online consumer psychology of digital natives.

References

Ba, S., & Pavlou, P. A. (2002), Evidence of the effect of trust building technology in electronic markets: Price premiums and buyer behavior. *MIS quarterly*, 26(3), 243-268.

Bagozzi, R. P., & Yi, Y. (1988), On the Evaluation of Structural Equation Models," *Journal of the Academy of Marketing Science* 16 (1), 74-94.

Bauer, R.A. (1960), Consumer behaviour as risk taking, in Hancock, R.F. (Ed.), Proceedings of the 43rd Conference of the American Marketing Association, American Marketing Association, Chicago, IL, pp. 389-98.

Cunningham, S.M. (1967), The major dimensions of perceived risk, in Cox, D.F. (Ed.), Risk Taking and Information Handling in Consumer Behavior, Harvard University Press, Boston, MA, pp. 82-108

Bai, Y., Yao, Z., & Dou, Y. (2015), Effect of social commerce factors on user purchase behavior: An empirical investigation from Renren.com. *International Journal of Information Management* 35 (5)5, 538-550.

Barrera Jr, M., & Ainlay, S.L. (1983), The structure of social support: A conceptual and empirical analysis, *Journal of Community Psychology* 11 (2),133-143.

Barrera, M. (1986), Distinctions between social support concepts, measures, and models, *American Journal of Community Psychology* 14, (4), 413-445.

Beard, K. W. (2005). Internet addiction: A review of current assessment techniques and potential assessment questions. *Cyberpsychology and Behavior*, 8, 7–14

Bethune, S. 2019. "Gen Z More Likely to Report Mental Health Concerns." 2021, from https://www.apa.org/monitor/2019/01/genz#:~:text=More%20than%20nine%20in%2010,enough%20to%20manage%20their%20stress.

Bilgihan, A., Peng, C., & Kandampully, J. (2014). Generation Y's dining information seeking and sharing behavior on social networking sites: An exploratory study. *International Journal of Contemporary Hospitality Management*, 26(3), 349-366.

Caplan, S. E. (2007). Relations among loneliness, social anxiety, and problematic Internet use. *Cyberpsychology and Behavior*, 10, 234–242

Chaplin, L. N., Hill, R. P., & John, D. R. (2014). Poverty and materialism: A look at impoverished versus affluent children. *Journal of Public Policy & Marketing*, *33*(1), 78-92.

Chen, J., & Dibb, S. (2010). Consumer trust in the online retail context: Exploring the antecedents and consequences. *Psychology & Marketing*, *27*(4), 323-346.

Chiu, C-M., Wang, E.T., Fang, Y-H., & Huang, H-Y. (2014). Understanding customers' repeat purchase intentions in B2C e-commerce: the roles of utilitarian value, hedonic value and perceived risk. *Information Systems Journal*, 24(1), 85-114.

Cobb, S. (1976). Social support as a moderator of life stress. *Psychosomatic Medicine*, 38, 300–314

Cohen, S., & Hoberman, H. (1983). Positive events and social supports as buffers of life-change stress. *Journal of Applied Social Psychology,* 13, 99–125

Crocker, J., & Canevello, A. (2008). Creating and undermining social support in communal relationships: the role of compassionate and self-image goals. *Journal of personality and social psychology*, 555.

Doherty, C. J., & Nida, A. (2020). Pew Research Center, March, 2020, "Worries About Coronavirus Surge, as Most Americans Expect a Recession – or Worse"

Duffett, R.G., (2017). Influence of social media marketing communications on young consumers' attitudes. *Young Consumers*, 18(1), 19-39.

Gentina E., & Chen, RH (2019). Digital natives' coping with loneliness: Facebook or face-to-face?. *Information & Management,* 56 (6), 103-138.

Gefen, D. (2002), Customer loyalty in e-commerce. *Journal of the Association for Information Systems*, 3(1), 2.

Hajli, M. Nick. (2014), The role of social support on relationship quality and social Commerce, *Technological Forecasting and Social Change,* 87, 17-27.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). Multivariate Data Analysis: Pearson Prentice Hall, *Upper Saddle River, NJ* (1:1), pp. 1-816.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial Least Squares Structural Equation Modeling: Rigorous Applications, Better Results and Higher Acceptance, *Long Range Planning* (46:1-2), pp. 1-12.

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to Use and How to Report the Results of Pls-Sem, *European Business Review* (1:1).

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.

Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A Primer on Partial Least Squares Structural Equation Modeling (Pls-Sem)*. Sage publications.

Hajli, M. N. (2014). The Role of Social Support on Relationship Quality and Social Commerce, *Technological Forecasting and Social Change* (87), pp. 17-27.

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), pp. 133-141.

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.

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.

Johnson, D. S., Bardhi, F., & Dunn, D.T. (2008). Understanding how technology paradoxes affect customer satisfaction with self-service technology: The role of performance ambiguity and trust in technology. *Psychology & Marketing* 25 (5), 416-443

Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business horizons*, *53*(1), 59-68.

Kastenholz, C. (2021). Generation Z and the Rise of Social Commerce, Forbes, May 17, 2021, https://www.forbes.com/sites/forbesagencycouncil/2021/05/17/gen-z-and-the-rise-of-social-commerce/?sh=5ded293a251d

Kesharwani, A., (2020). Do (how) digital natives adopt a new technology differently than digital immigrants? A longitudinal study. Information & Management, 57(2), 103170

Kim, S., & Park, H. (2013). Effects of various characteristics of social commerce (s-commerce) on consumers' trust and trust performance. *International Journal of Information Management*, *33*(2), 318-332.

Kim, J., Giroux, M., & Lee, J. C. (2021). When do you trust AI? The effect of number presentation detail on consumer trust and acceptance of AI recommendations. *Psychology & Marketing*, 38(7), 1140-1155.

Kock, N. (2015). Common Method Bias in Pls-Sem: A Full Collinearity Assessment Approach, *International Journal of e-Collaboration (IJEC)* (11:4), pp. 1-10.

Kozinets, R. V. (2021). Algorithmic branding through platform assemblages: core conceptions and research directions for a new era of marketing and service management. *Journal of Service Management*, November (e-print).

Liang, T-P., Ho, Y-T., Li, Y-W., & E. Turban. (2011). What drives social commerce: The role of social support and relationship quality. *International journal of electronic commerce* 16 (2), 69-90.

Liao, C., Liu, C-C., and K. Chen. (2011). Examining the impact of privacy, trust and risk perceptions beyond monetary transactions: An integrated model. *Electronic Commerce Research and Applications* 10 (6), 702-715.

Lin, X., Li, Y., & Wang, X. (2017). Social commerce research: Definition, research themes and the trends. *International Journal of Information Management*, *37*(3), 190-201.

Lister-Landman, K.M., Domoff, S.E., & Eric F. Dubow. (2017), The role of compulsive texting in adolescents' academic functioning. *Psychology of Popular Media Culture* 6 (4), 311.

Park, D. H., Lee, J., & Han, I. (2007). The effect of on-line consumer reviews on consumer purchasing intention: The moderating role of involvement. *International journal of electronic commerce*, *11*(4), 125-148

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.

Portell, G. 2021. "How Gen Z's Concern with Emotional Health Fuels Retail Growth and Failure." 2021, from https://www.kearney.com/consumer-retail/article?/a/how-gen-z-s-concern-with-emotional-health-fuels-retail-growth-and-failure

Priporas, C.V., Stylos, N. & Fotiadis, A.K., (2017). Generation Z consumers' expectations of interactions in smart retailing: A future agenda. *Computers in Human Behavior*, 77, 374-381

Maseeh, H.I., Jebarajakirthy, C., Pentecost, R., Arli, D., Weaven, S., & M. Ashaduzzaman (2021). "Privacy concerns in e-commerce: A multilevel meta-analysis." *Psychology & Marketing*, 38 (10), 1779-1798.

McKinsey (2002), Meet Generation Z: Shaping the future of shopping, podcast, McKinsey, August 4, 2020. https://www.mckinsey.com/industries/consumer-packaged-goods/our-insights/meet-generation-z-shaping-the-future-of-shopping

Miyazaki, A. D., & Fernandez, A. (2001), Consumer perceptions of privacy and securityrisks for online shopping. *Journal of Consumer Affairs*, 35, 1, 27–45

Moeller, Susan, Elia Powers, & Jessica Roberts. (2012), «The world unplugged» and «24 hours without media»: Media literacy to develop self-awareness regarding media. *Communication, Media Education Research Journal* 20 (2), 22-45.

Mutz, D. C. (2005). Social trust and e-commerce: Experimental evidence for the effects of social trust on individuals' economic behavior. *Public Opinion Quarterly*, *69*(3), 393-416.

Parker, K., & R. Igielnik (2020). On the Cusp of Adulthood and Facing an Uncertain Future: What we know about Gen Z so far. Pew Research Center, May, 2020.

Pfeil, U., Zaphiris, P., & Wilson, S. (2009). Older adults' perceptions and experiences of online social support. *Interacting with computers*, *21*(3), 159-172.

Plangger, K. & Montecchi, M. (2020), "Thinking beyond privacy calculus: investigating reactions to customer surveillance", Journal of Interactive Marketing, Vol. 50, pp. 32–44

Reichheld, F. F., & Schefter, P. (2000). E-loyalty: your secret weapon on the web. *Harvard business review*, *78*(4), 105-113.

Rehman, Z. U., Baharun, R., & Salleh, N. Z. M. (2020). Antecedents, consequences, and reducers of perceived risk in social media: A systematic literature review and directions for further research. *Psychology & Marketing*, *37*(1), 74-86.

Sagioglou, C., & Greitemeyer, T. (2014), "Facebook's emotional consequences: Why Facebook causes a decrease in mood and why people still use it." *Computers in Human Behavior* 35, 359-363.

Sarason, I.G. (2013), ed. *Social support: Theory, research and applications*. Vol. 24. Springer Science & Business Media, 2013.

Shi, D., & Maydeu-Olivares, A. (2020). "The Effect of Estimation Methods on Sem Fit Indices," *Educational and Psychological Measurement* (80:3), pp. 421-445.

Slyke, C. V., Shim, J. T., Johnson, R., & Jiang, J. (2006) Concern for information privacy and online consumer purchasing. *Journal of the Association for Information Systems*,7,6, 2006, 415–444.

Steers, M-Y.N., Wickham, R.E., & Acitelli, L.K. (2014). Seeing everyone else's highlight reels: How Facebook usage is linked to depressive symptoms. *Journal of Social and Clinical Psychology* 33 (8), 701-731.

Tan, S.J. (1999). Strategies for reducing consumers' risk aversion in internet shopping, Journal of Consumer Marketing, 16 (2), 163-80.

Twenge, J.M. (2014), *Generation me-revised and updated: Why today's young Americans are more confident, assertive, entitled--and more miserable than ever before*. Simon and Schuster.

Twenge, J.M., Martin, G.B., & W. Keith Campbell. (2018), "Decreases in psychological well-being among American adolescents after 2012 and links to screen time during the rise of smartphone technology." *Emotion* 18 (6), 765.

Twenge, J.M. (2017) *iGen: Why today's super-connected kids are growing up less rebellious, more tolerant, less happy--and completely unprepared for adulthood--and what that means for the rest of us*. Simon and Schuster, 2017.

Vangelisti, A.L. (2009) "Challenges in sconceptualising social support." *Journal of social and Personal Relationships* 26 (1), 39-51.

Yahia, I. B., Al-Neama, N., & Kerbache, L. (2018). Investigating the drivers for social commerce in social media platforms: Importance of trust, social support and the platform perceived usage. *Journal of Retailing and Consumer Services*, *41*, 11-19.

Yang, S., & Wang, K. (2009), The influence of information sensitivity compensation on privacy concern and behavioral intention." *ACM SIGMIS Database: the DATABASE for Advances in Information Systems* 40 (1), 38-51.

Zhang, K. Z., Cheung, C. M., & Lee, M. K. (2014). Examining the moderating effect of inconsistent reviews and its gender differences on consumers' online shopping decision. *International Journal of Information Management*, *34*(2), 89-98.

Zhu, Y. Q., & Kanjanamekanant, K. (2021). No trespassing: Exploring privacy boundaries in personalised advertisement and its effects on ad attitude and purchase intentions on social media. Information & Management, 58(2), 103314.

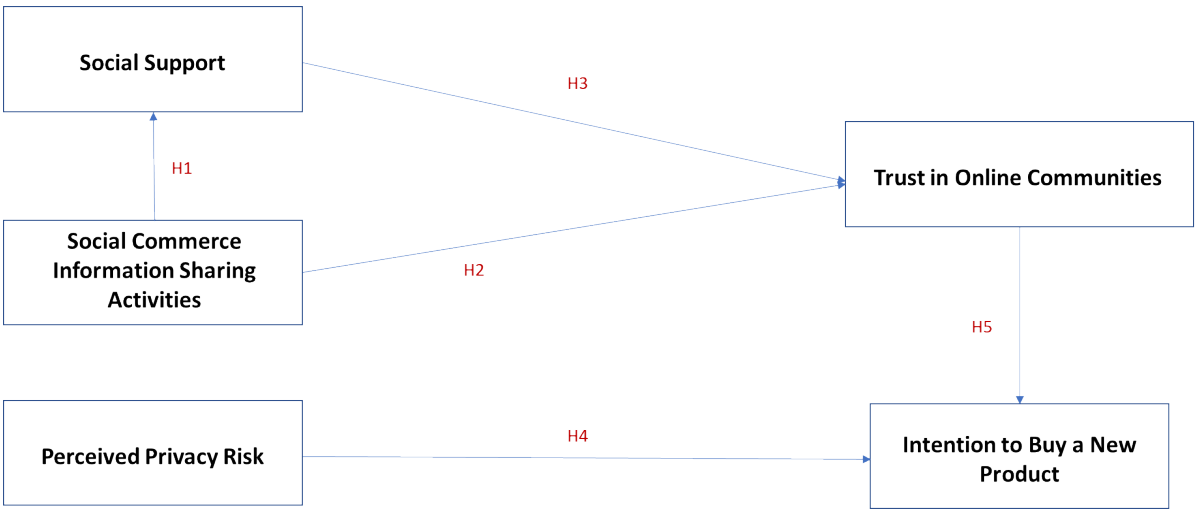

Figure 1: The Conceptual Model

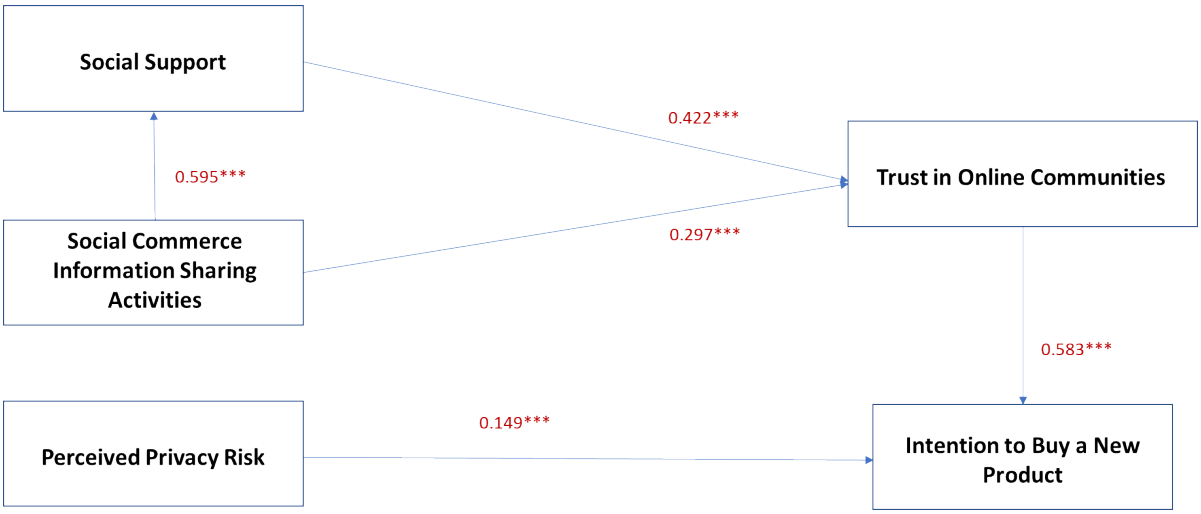

Figure 2: Structural Model

Trust in Online Communities: R-square: 0.402, Adjusted R-square: 0.395

*. Significant at 0.05 level

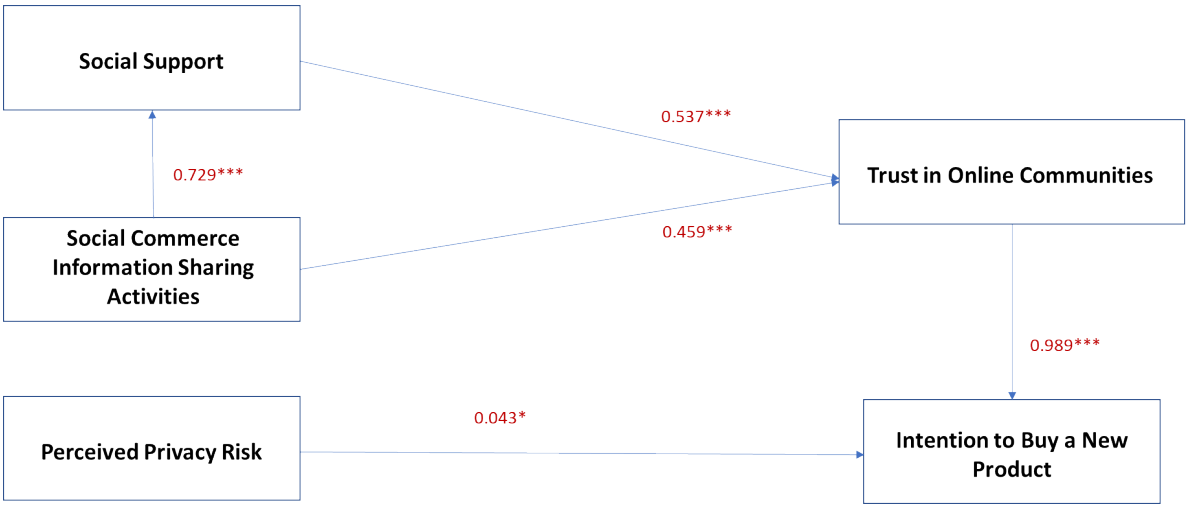

Figure 3: Structural Model

Trust in Online Communities: R-square: 0.402, Adjusted R-square: 0.395

*. Significant at 0.05 level

Discussion

H1 Social information sharing to social support

H2 social information sharing activities to trust

H3 Social support to trust

H4 Privacy risk to purchase intention CB doesn't support

H5 Trust to purchase intention

APPENDIX A

Table A1: Indicators loadings and latent variables composite reliabilities (CRs) and average variances extracted (AVEs) for the SEM

Latent and Manifest Variables	Mean	Std. Dev.	PLS-SEM						CB-SEM			
			Loadings	CR	Cronbach's Alpha	AVE	VIF		Loadings	CR	Cronbach's Alpha	AVE
Social Support, adapted from (Hajli 2014)				0.902	0.902	0.567						
Emotional Support												
When faced with difficulties, some people on this online community are on my side with me.	0.771	0.033	0.771				2.303		0.75			
When faced with difficulties, some people on this online community comforted and encouraged me.	0.743	0.037	0.744				2.111		0.70			

When faced with difficulties, some people on this online community listened to me talking about my private feelings.	0.682	0.043	0.700				1.871		0.68			
When faced with difficulties, some people on this online community expressed interest and concern in my well-being.	0.750	0.037	0.750				2.290		0.74			
Informational Support												
On this online community, some people would offer suggestions when I needed help.	0.776	0.033	0.778				2.232		0.81			
When I encountered a problem, some people on this online community would give me information to help me overcome the problem.	0.784	0.033	0.785				2.030		0.70			
When faced with difficulties, some people on this online community would help me discover the cause and provide me with suggestions.	0.755	0.042	0.756				2.032		0.75			

Trust in Online Communities, adapted from (Gefen et al. 2003)				0.859	0.751	0.672						
The performance of this online community always meets my expectations.	0.864	0.020	0.865				2.214		0.69			
This online community can be counted on as a good online community.	0.863	0.022	0.863				2.203		0.88			
This online community is a reliable online community.	0.724	0.046	0.724				1.210		0.84			
Social Commerce Information Sharing, adapted from (Hajli et al. 2016)				0.832	0.729	0.555						
I will ask my friends on forums and communities to provide me with their suggestions before I go shopping for a new product.	0.715	0.044	0.714				1.356		0.70			
I am willing to recommend a new product that is worth buying for my friends on this online community.	0.840	0.027	0.841				1.871		0.86			

I am willing to share my own shopping experience of a new product with my friends on forums and communities or through ratings and reviews.	0.713	0.044	0.715				1.340		0.74			
I would like to use people's online recommendations to buy a new product.	0.700	0.044	0.762				1.355		0.71			
Perceive Privacy Risk, adapted from (Pavlou et al. 2006)				0.864	0.790	0.615						
I am concerned that social networking sites are collecting too much personal information about me.	0.775	0.046	0.775				1.528		0.77			
I'm worried that unknown third parties will access my personal information on social networking sites.	0.740	0.038	0.740				1.480		0.72			
I suspect that my privacy is not well protected by social networking sites.	0.780	0.030	0.779				1.687		0.82			
I am concerned about the privacy of the personal information that social networking sites captures about me.	0.838	0.027	0.839				1.969		0.70			

Intention to Buy a New Product, adapted from (Hajli et al. 2016)				0.836	0.739	0.561						
If my friends ask for advices about a product in this online community, I intent to share it with them.	0.742	0.039	0.742				1.586		0/74			
If my friends offer information about a product in this online community, I would act on them.	0.790	0.031	0.791				1.715		0.72			
If I need information about a new product, I would consider the experiences of my friends in this online community.	0.737	0.050	0.738				1.414		0.76			
If a professional advisor offers advice based on his/her experience in this online community, I would act on them.	0.723	0.047	0.724				1.415		0.75			

Table A2: Discriminant validity with PLS-SEM

Constructs (Fornell-Lacker Criterion)	1	2	3	4	5
1 Intention to Buy a New Product	**0.749**				
2 Perceived Privacy Risk	0.282	**0.784**			
3 Social Commerce Information Sharing	0.657	0.362	**0.745**		
4 Social Support	0.710	0.312	0.595	**0.753**	
5 Trust in Online Communities	0.617	0.228	0.548	0.599	**0.820**

Note: Bold values indicate the square root of AVE. These values should exceed the inter-construct correlations. The values below indicate the square of correlations

`