

## How Social Commerce: Transfer of the Power from Sellers to Buyers?

### Abstract

The emergence of social media has demonstrated the empowerment of end-users with a transfer of power from sellers to buyers. Consumers have become able to generate content and share this in their networks with peers. Digital content generated by individuals has an economic value. Economic implications in the form of product sales through social interaction of individuals must now be taken into account by businesses. This has seen the emergence of social commerce, an important evolution in e-commerce. This paper draws on social support theory, social commerce constructs and information systems concepts, proposes a conceptual model. This proposed model investigates the role of social media in facilitating online communication of consumers through social commerce constructs, leading to online social support. A survey has been conducted to examine the structural model. Data analysis using SEM-PLS reveals important factors indicating the role of social media in facilitating online communication through social commerce constructs, generating online social support and affecting consumers' behaviour, the value of social commerce for the market. Theoretical implications and practical implications of this study has explained in the end of the paper.

### Keywords:

Social commerce; social support; social commerce constructs; social media; Social Commerce Intention

## **Introduction**

Enabled by Web 2.0 technologies, consumers use social media to share their experiences and knowledge about products and services on the Internet (Pitta & Fowler, 2005). Individuals are now content providers through Internet connection (Phillips, 2011). In recent developments, the Internet provides the facilities for users searching for goods by offering tools to consumers to search online and access information and experiences of other consumers before making a purchase (Di Maria & Finotto, 2008). Therefore, digital content generated by individuals has economic value (Pitta & Fowler, 2005) as today, information created by other customers is the main source of purchase decision making (Do-Hyung, Jumin, & Ingoo, 2007). These are the benefits of social media creating a social climate on the Internet.

In this social climate, with regular interconnectivities amongst individuals via social media (Liang, Ho, Li, & Turban, 2011) potential consumers have access to information provided through social interaction by social media to support them in their purchasing decisions and this creates online social support (Hajli, 2014a). Social support is an established concept in sociology, defined as “information leading the subject to believe that he is cared for and loved, esteemed and a member of a network of mutual obligations.” (Cobb, 1976). This supportive environment has seen the rise of online social support via social commerce constructs (SCCs) known as forums, communities, ratings, reviews and recommendations (Hajli, 2014b).

Social commerce a new stream in e-commerce is the integration of social media in e-commerce platforms. Individuals are using SCCs and social tools to perform social interaction with peers in social networking sites (SNSs), which this create a social climate with the emergence of online social support. The social interaction of individuals is mainly due to the popularity of social networking sites social media (Cachia, Compañó, & Da Costa, 2007) and the growth of social commerce (Stephen & Toubia, 2010). SNSs are the area of largest growth on the Internet (Hollenbeck & Kaikati, 2012).

In this era, consumers explore the Internet for what they want and need, and also share their knowledge, information, and experiences that they have about the products and the services with other people. They use SCCs for this interaction, which this produce online social support in SNSs. Moreover, social interaction of consumers influences a user`s social commerce intention and his or her social behaviour (Hajli, 2014b; Liang et al., 2011).

Nevertheless, there are few studies that have investigated social factors and their influence on online social support and social commerce. Social commerce is a product of social media and e-commerce (Constantinides et al., 2008) and is progressively drawing more attention from scholars and practitioners (Z. Huang & Benyoucef, 2013). The emergence of social commerce has resulted in the empowerment of users, as the Internet, and specifically Web 2.0, has transferred power from sellers to buyers (Gu, Park, & Konana, 2012; Wei, Straub, & Poddar, 2011). SNSs are an example of this change with the opportunities they now offer to consumers (Kim, 2013). Towards these ends, the study of SNSs and potential paradigm changes is important for the current business world and can exert significant influence on virtual communities and their users' behaviours (Hajli, 2014b; Williams et al., 2001).

The purpose of this research is to study the social relationship of consumers in social platforms provided by social media and to demonstrate the importance of social media on producing online social support and shaping social commerce. Social support is known to have positive effects on consumer behaviour. This has been shown through studies in social psychology and more recently, information systems literature. It is particularly important in social media because the social relationship of individuals on the Internet has developed e-commerce into social commerce. More specifically, this study examines the role of social commerce constructs - online forums, communities, ratings, reviews and recommendations (Hajli, 2013). The study looks at users' social commerce intention and how these constructs can produce social support. Social media facilitates the creation of social support, which can lead network users to make a better decision on their purchasing and also to shape a more supportive climate (Liang et al., 2011; Lu & Hsiao, 2010; Stephen & Toubia, 2010). In other words, more and better social support is likely to lead to more social commerce intention and will influence the social behaviour of consumers. Therefore, the study of social support and social commerce constructs in social commerce research is important. In addition, the impact of social media and the way these constructs can facilitate social change can make a unique contribution to the current knowledge base of individuals' commercial behaviour in SNSs.

In this regard, the present study intends to answer these questions: (1) Do social commerce constructs affect the user's social commerce intention and social support? (2) Does social support affect the user's social commerce intention? (3) Which factors (social support or social commerce constructs) are more important in determining the user's social commerce intention in social networking sites? The author proposes a theoretical model based on social support theory, social commerce intention and social commerce constructs. This has been piloted on

Facebook as the world's most popular SNS. The results of this empirical research, using SEM-PLS, show the effect of social commerce constructs on the user's social commerce intention and that social support is significant. Social support also strongly influences the user's social commerce intention. In addition, the effect of social commerce constructs has a stronger influence than social support on social commerce intention in users. These results show that the study of social support and social commerce constructs are important concepts in predicting consumer behaviour in this era. They demonstrate that social media is leading social change as more individuals are attracted to SNSs. In the following sections, the study reviews literature on social commerce and social support. This is followed by an explanation of the research model, hypothesis and methodology. Findings from the data analysis will be in the last part along with conclusions and discussion.

### **What is social commerce?**

Social commerce is a new stream in e-commerce (Hajli, 2014b). Social commerce is the use of Web 2.0 applications and social media to facilitate the interactions of individuals on the Internet to support consumers' acquisition of services and products (Liang & Turban, 2011). In another definition, social commerce is given as any commercial application based on the Internet which supports social interaction and user content generation through social media in order to support individuals in their purchasing decisions (Z. Huang & Benyoucef, 2013). Social commerce is a relatively new phenomenon and there is little research on this area (Z. Huang & Benyoucef, 2013). The authors define social commerce as a new stream in e-commerce, where social factors are the determinant of this phenomenon and consumers are empowered to generate content using social media through online communities, forums, ratings, reviews and recommendations. Social commerce emerged by the increasing popularity of social media and integration of social media in e-commerce platforms. Social interaction of consumers on the Internet has shaped social commerce. This has provided different values such as co-creation (Zwass, 2010) when collaboration between consumers and business generates a new source of value creation (Füller, Mühlbacher, Matzler, & Jaweck, 2009), easily accessed by consumers browsing the marketplace (Stephen & Toubia, 2010) with readily available content (Chen, Xu, & Whinston, 2011). This also has enhanced creativity (Cachia et al., 2007) and has led to increased sales for traders (Crocker & Canevello, 2008). It is expected that in future, almost 88% of businesses will develop their business strategies based on social commerce (Constantinides et al., 2008). Hence, the study of social commerce is a promising research agenda.

## **Social support; a theory from social-psychology track**

Social support is defined as “The social resources that persons perceive to be available or that are actually provided to them by non-professionals in the context of both formal support groups and informal helping relationships.” (Gottlieb & Bergen, 2010). Social support has been thoroughly investigated in psychology, sociology and health studies (Hajli et al., 2014). With the emergence of Web 2.0 and social relationships in social technologies, it is now being welcomed into business studies. People share their knowledge and experiences more freely when they feel that their participation improves their reputation (Molly McLure & Samer, 2005). Twitter as a popular SNS is a good example, where members of communities regularly provide social support for others (Gruzd, Wellman, & Takhteyev, 2011). The nature of their social interactions on Twitter shows that they have the ability to influence other members (Gruzd et al., 2011). Another example is where customer recommendations are considered as a vital source of information (Senecal & Nantel, 2004b).

Online social support in this study is defined as online actions that individuals carry out by collaborating with peers through social media. This can be either providing assistance or seeking support (Barrera, 1986). Online social support has a significant effect on the performance of virtual groups as it is an innovative type of social interaction (Williams et al., 2001). Virtual groups or communities are a group of individuals interacting in a social network due to common goals or interests, with social interaction occurring in an online context (Joon & Young-Gul, 2003). Internet groups have been developed to facilitate the interconnectivities of individuals and increase the availability of social support through sharing information and friendship among members (Obst & Stafurik, 2010). Hence, seeking and providing social support is one of the main advantages of virtual communities (Ridings & Gefen, 2004). Today, social media is facilitating the production of social support on the Internet (Hajli, 2014b). Twitter for instance, where users provide social support for other peers, is an example of social media derived from online social support (Gruzd, Wellman, & Takhteyev, 2011).

## **Research model and hypothesis**

In line with the above introduction, this study proposes a theoretical model, shown in Figure 1.0. The model is based on social support theory and social commerce constructs. The hypotheses and justification for relationships between constructs are listed below.

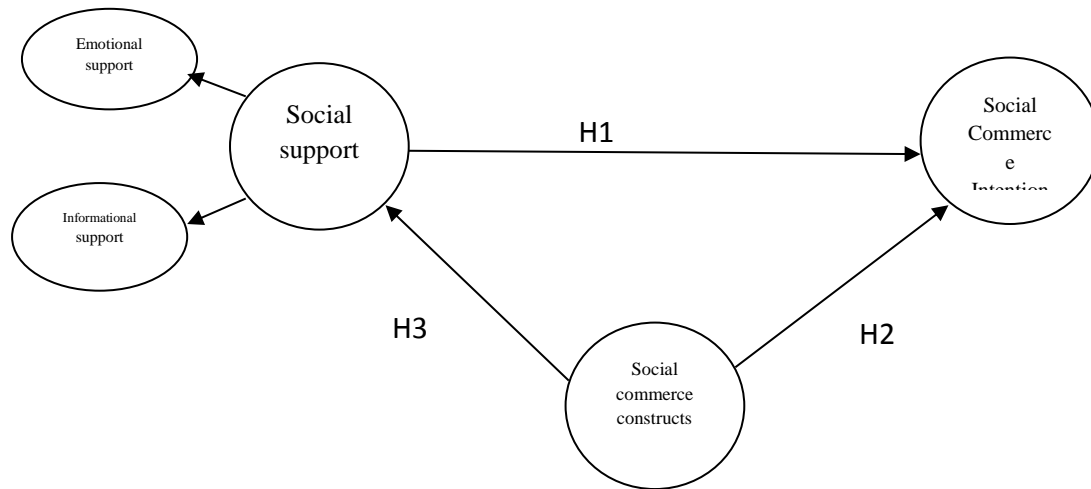


Figure 1 Research model

### Social support

Informational and emotional support are the two main supports that individuals are likely to receive in an online context (Ridings & Gefen, 2004). These two dimensions shape online social support. Social interactions of consumers through social media generate both emotional and informational support (Ballantine & Stephenson, 2011). Emotional and informational support are the two main dimensions of social support in an online context (Hajli, 2014b). Online social support is a characteristic of social platforms such as virtual communities. Virtual communities offer added value such as social support to their users through social interactions (Maloney-Krichmar & Preece, 2005). These interactions can provide emotional support (Rauyruen & Miller, 2007), informational support (Maloney-Krichmar & Preece, 2005) or both (Liang et al., 2011).

Current literature on social support shows how SNSs are likely to provide online social support (Ballantine & Stephenson, 2011; Crocker & Canevello, 2008; Hwang et al., 2010; Obst & Stafurik, 2010; Teoh, Chia, & Mohanraj, 2009; Wangberg et al., 2008; Wellman et al., 1996). Therefore, online social support is likely to be more productive through social involvement and improved online communication than offline social support (Kraut et al., 2002). Online communication and social interaction of individuals in an online context can be more open and less inhibited than offline interconnectivities (Bargh & McKenna, 2004). With the popularity of

SNSs and social media, online social support is now widely available and can be an influential tool in shaping behaviour (Tsai, Joe, Lin, Wang, & Chang, 2012). Therefore, interaction of individuals through social media, which endorses a company in a positive manner, can positively affect an individual's social commerce intention (Naylor et al., 2012; X. Wang, Yu, & Wei, 2012). In addition, online social support significantly influences social commerce intention and endorses the final step to making a purchase (Liang et al., 2011). In this regard, the research can postulate this hypothesis:

H1: Social support has significant effect on a user's social commerce intention.

### **Social commerce constructs**

Social commerce constructs (SCCs) are the constructs derived through social commerce such as online forums, communities, ratings, reviews and recommendations (Hajli, 2013). They produce textual information which can support consumers in their buying behaviours. Today, online vendors create a platform that allows their businesses to take part in consumers' social interactions using social media (Amblee & Bui, 2011). E-vendors employ SCCs such as ratings, reviews and recommendation systems, or develop online forums and communities to facilitate social interactions of consumers and online communication with consumers. Amazon and eBay are good examples of providing customer review (M. Huang, Cai, Tsang, & Zhou, 2011). Customer reviews have added value for other potential customers (Heinonen, 2011; Keller, 2009). Online communities are other powerful tools of social commerce, where generating electronic word of mouth can be vital for business (Kozinets, de Valck, Wojnicki, & Wilner, 2010). Forums and communities are the practical tools of social media with the development of e-commerce to social commerce (Z. Huang & Benyoucef, 2013). Recommendations are another facility within SCCs where consumers recommend a product to others and can generate support for other potential consumers (Piller & Walcher, 2006).

Previously, before the emergence of Web 2.0, some researchers argued that in an online context, consumers do not have the benefits of actual human contact and sociability (Gefen, Karahanna, & Straub, 2003). Others described the relationship between vendor and consumer as anonymous and impersonal as well as automated (Y. D. Wang & Emurian, 2005). However, with the emergence of social media, individuals now have different opportunities and tools to interact online and support each other. Through social interactions, they can produce online social support for both their networks and peers (Obst & Stafurik, 2010). Today, consumers have a strong voice on the Internet and users throughout the entire world can reap the benefits provided through interactive sites (Kaplan & Haenlein, 2010). They can create content and share it over the Internet (Zwass, 2010).

Although, content generated online can often be biased (Riemer & Lehrke, 2009; Senecal & Nantel, 2004a), the interactions through social media drive sales and have far-reaching economic implications (X. Wang et al., 2012).

Economic implications in the form of product sales through social media (Chris, Anindya, & Batia, 2008) must be taken into account by companies. The information, which is personal and based on experience, can have a positive effect on social commerce intention (Do-Hyung et al., 2007). Positive customer reviews directly increase sales (Heinonen, 2011). Recommendations also affect a user's intention to buy (Di Maria & Finotto, 2008) while ratings impact on sales (Dahan & Hauser, 2002). SCCs can influence a user's intention to buy through different formats such as recommendations (Senecal & Nantel, 2004b), customer reviews (Yubo & Jinhong, 2005) and generating product information for other users in a network (Hollenbeck & Kaikati, 2012). It is due to the fact that these social tools engage consumers on SNSs, which it can influence consumer purchase decision {Cheung, #1131}. Individuals' activities through social media can also produce online social support (Ballantine & Stephenson, 2011; Crocker & Canevello, 2008). Therefore, this research hypothesises:

H2: Social commerce constructs significantly affect a user's social commerce intention,

H3: Social commerce constructs can produce social support.

## **Method**

### **Subjects**

To test the model and find out more about the structural model, a survey was carried out in December 2012 and January 2013. The study was conducted on Facebook, as this is the most popular and most widely used SNS in the world. SNSs are an appropriate tool in identifying emerging social behavioural changes (Cachia et al., 2007). The first question in the questionnaire asks whether the participant is a member of Facebook, as an initial screen to choose the participants. A paper questionnaire has been distributed in London along with an online version to attract global participants. The paper questionnaire was distributed in public areas such as libraries and coffee shops. The electronic version was posted on Facebook in different pages to try to attract more participation to support this research. A return of 260 questionnaires, which had 230 usable questionnaires, mostly Londoners, was received. The respond rate in this research is %28 as the author sent 900 questionnaires out. The sample contains participants between 18 and 45 years old; 36% male and 64% female



with almost 70% of the respondents holding a university degree. Most returns were early respondents, classified as those received within 14 days.

### **Measurement development**

To measure the constructs of the study, 7-point Likert scales are used. The questionnaire items have been adopted from existing literature to increase the validity and reliability of the research (see Appendix 1). The author asked other colleagues to scrutinise the questionnaire to report any mistakes or ambiguity in the questions. A few mistakes were rectified and some modifications to some questions were made before the questionnaire was issued. Finally, a pilot study with 10 students was conducted to assess the quality of the questionnaire and to check for ease of response. This pilot assured the author that the questionnaire was sound with very few modifications to the wording having to be made. These 10 questionnaires were excluded from the main survey.

In this research, social commerce intention measures consumer intention to engage in an online buying transaction through social media and specifically a social networking site, Facebook. Shopping through the Internet is one of the most popular applications of the world wide web (Bourlakis, Papagiannidis, & Fox, 2008), and now through SNSs (Hajli, 2014b). Social support was measured using the two dimensions of emotional and informational support. These two dimensions are the most important dimensions in an online context (Liang et al., 2011). Social commerce constructs have been adopted from previous research (Hajli, 2014). These constructs were measured by the social interactions of individuals in online forums, communities, reviews, ratings and recommendations. Appendix 1 gives an insight into the constructs and the way the items were developed.



	<b>Emotional Support</b>	<b>Informational Support</b>	<b>Social Commerce Intention</b>	<b>Social Commerce Constructs</b>
<b>Emotional Support</b>	0.80			
<b>Informational Support</b>	0.562652	0.80		
<b>Social Commerce Intention</b>	0.38737	0.469358	0.81	
<b>Social Commerce Constructs</b>	0.420805	0.481515	0.560366	0.77
<b>AVE</b>	0.623602	0.630736	0.653406	0.593334
<b>CR</b>	0.831435	0.836651	0.848521	0.853454
<b>Cronbach's Alpha</b>	0.709971	0.706951	0.731368	0.771253

Note: CR- Composite Reliability; AVE- Average Variance Extraction. Highlighted boxes are the square of correlation between constructs.

Table 1. Quality criteria

## Validity

The validity of the research has been assessed by both content validity and constructs validity. In content validity, typically, the assessment can be carried out through literature review (Gefen, 2002). To ensure this content validity, a reasonable literature review of social media, social commerce, e-commerce, social support, and related literature in sociology, information systems, social-psychology and marketing was undertaken by the author. In addition, the constructs of this study are taken from existing literature as shown in Appendix 1. Questionnaire items have been adopted through the literature review process, providing the research with an additional support for validity. Adopting questionnaire items from other validated research provides sound content validity (Gefen et al., 2003; Pavlou, 2003). The questionnaire has also been checked by other scholars to determine if the scale items were unambiguous and appropriate. As the scholars had no previous knowledge of the questionnaire, this procedure ensured content validity (X. Wang et al., 2012). This step ensured the validity of study via face validity. Appendix 1 shows the questionnaire items and sources of each construct.

To test the validity of the construct, the research uses *discriminant* validity and *convergent* validity. Assessing AVE can picture convergent validity. AVE should be at least 0.50 (Wixom & Watson, 2001). Table 1.0 shows that the research achieved these criteria. All constructs have a value above 0.50. In the following step of testing validity of the research, assessment of discriminant validity was performed by PLS-SEM. This test has been carried out by comparing the square of the correlations among the latent variables with the AVE (Chin, 1998). The author shows in Table 1.0 that all AVEs are greater than 0.50.

Finally, factor loading was assessed to give a complete picture of discriminant and convergent validity. Factor loadings of an indicator should be greater than the construct of it than any other factor (Chin, 1998; McLure Wasko & Faraj, 2005). Table 2.0 confirms that the observed indicators have sufficient validity by factor loading.

Indicators	Social Commerce Intention	Social Commerce Constructs	Emotional Support	Informational Support
<b>IB1</b>	<b>0.702692</b>	0.49268	0.383007	0.387142
<b>IB2</b>	<b>0.86066</b>	0.686	0.328184	0.369671
<b>IB3</b>	<b>0.860034</b>	0.670502	0.250266	0.391076

---

<b>SCC1</b>	0.632582	<b>0.794015</b>	0.300867	0.432402
<b>SCC2</b>	0.58005	<b>0.793726</b>	0.339568	0.402613
<b>SCC3</b>	0.506481	<b>0.708882</b>	0.352375	0.298353
<b>SCC4</b>	0.644123	<b>0.781257</b>	0.31246	0.340507
<b>SE1</b>	0.370292	0.410358	<b>0.882022</b>	0.660287
<b>SE2</b>	0.301541	0.390965	<b>0.721522</b>	0.429309
<b>SE3</b>	0.239063	0.199762	<b>0.756472</b>	0.442076

---

<b>SI1</b>	0.359746	0.402192	0.505281	<b>0.802976</b>
<b>SI2</b>	0.351134	0.309604	0.574965	<b>0.769847</b>
<b>SI3</b>	0.407808	0.437083	0.496354	<b>0.809181</b>

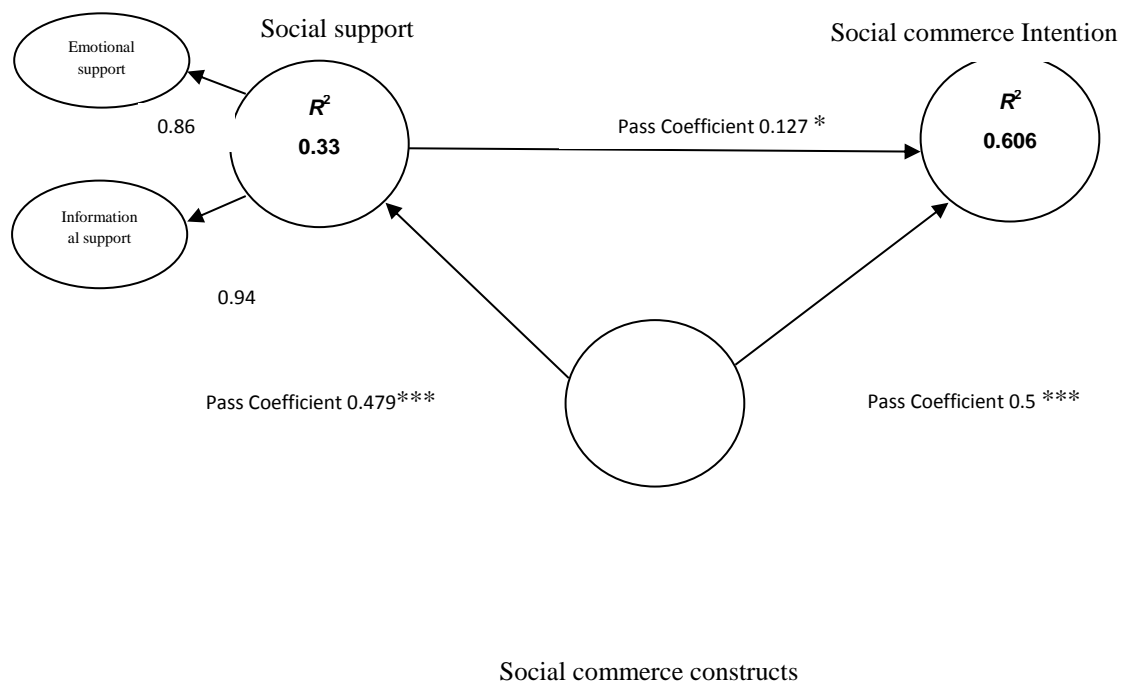
Table 2. Cross Loadings

### Structural model

The resulting estimates are shown in Fig 2.0. According to the results, all the paths in the research model are positively significant at the 0.05 level. The model fits;  $R^2$  show that it accounts for almost 61% and 0.33% of the variance in social commerce intention and social support. These results show an acceptable level of explanation power. This means that social commerce intention was affected by social commerce constructs and social support. The  $R^2$  for social support means that 33% of the variance in social support was accounted for by

social commerce constructs. Hence, the results indicate that the model has a satisfactory level of explanation power.

In regards to the relationships among research constructs, the path coefficients shown in Figure 2.0 indicate that social support (0.127) and social commerce constructs (0.5) both have significant effects on social commerce intention. Hence, H1 and H2 are supported. However, the direct effect of social commerce constructs on social commerce intention is stronger than that of social support (0.5 vs. 0.127). This indicates that the social commerce construct is more important than social support in affecting social commerce intention in a user. Social commerce constructs also have a significant effect on social support (0.479). Therefore, H3 is supported.



\* p <.05;; \*\*\*p <.001.

Figure 2 Results of the PLS Analysis

## **Discussion and conclusion of paper**

Enabled by Web 2.0 and social media, individuals are not simply consumers of information on the Internet; they are empowered to generate content and share it with others. This is a significant change, which transfers power from the sellers to the customers as consumers influence the business position on the market by their comments on products or services.. The present research adopts social commerce constructs and social support theory along with the concepts in information systems to investigate how the social interaction of individuals, provided by social media, affects users` social commerce intention after sharing and receiving information related to products and services. A research framework that combines social support, social commerce constructs and social commerce intention has been proposed. The research model has been evaluated through an empirical research using SEM-PLS. The findings of data analysis show that social commerce constructs, namely ratings, reviews, forums, communities and recommendations, facilitate online communication and social interactions of consumers. This directly and indirectly affects consumers` social commerce intention. The results of PLS-SEM analysis also show social commerce constructs and activities of consumers through these platforms have stronger effect on social commerce intention than social support. This result indicates that social interaction of participants through social commerce constructs influence participants` behaviour and their decisions in the purchasing process. In addition, these online communications facilitate sharing and receiving information amongst peers, thus providing a source of social support for the network. The results show that social support as measured by emotional and informational support significantly impacts on the social commerce intention of participants. Potential consumers now use social media tools such as participating in online forums and communities, or rating and reviewing a product or service, or recommending a system. This is now common practice before making a purchase. These social activities indicate that consumers are active and they have the power to provide the evidence, which influences others` behaviour. In addition, these interactive tools attract more individuals to have online communication. The results show that the interaction of participants not only influences a user`s social commerce intention, but also offers valuable support for others seeking information and advice on the network.

These findings develop previous research (Hajli, 2014b) on social commerce and theoretically develop social commerce constructs as well as the impact of these social tools on consumer`s behaviour. These findings have important implications for the market practitioner and future researchers. The most important implication drawn from the results is the effect of social interaction of consumers and the social factors in facilitating online communication amongst consumers and also between consumers and e-vendors. Social support, which is a

significant value derived from social interaction of consumers in an online context, is important because a supportive climate attracts more individuals to come online and as a result, more influence on individuals is created. It is obvious from the growing popularity of social networking sites that attracting more individuals to interact online will facilitate social change. Social media can offer different values, facilitating online communication being one of the most important. Social media can be used as communication channels (Do-Hyung et al., 2007), while e-vendors can also support consumers socially through social commerce construct platforms. Therefore, developing these platforms such as communities, forums or review systems, can facilitate more online communication, thus providing more social support. A practical implication of this research is for businesses to learn to develop their strategies based on social media.

In conclusion, the finding of this research highlights the role of social media and social networking sites in providing a supportive environment for consumers as well as developing online communication. The main focus of these findings is the key role of online social support, through both informational and emotional support, in influencing users' behaviour and social commerce intention. In addition, social commerce constructs, which have significant effect on consumer behaviour, can be powerful tools for practitioners in upgrading social media strategies. These constructs are the areas where practitioners can further develop their strategies to facilitate online communication of consumers.

### **Theoretical and practical implications of this study**

Social commerce is a new stream in e-commerce without sufficient theoretical bases. This study may develop the theoretical background of this track by integrating social support theory from social-psychology and social commerce intention from information systems. The conceptual model of the present study develops the theory of social support to online social support by increasing popularity of social media. In addition, social commerce constructs has also empirically tested and may make a theoretical base for future research on social commerce. Developing literature of this little known stream can be another contribution to this study. The present research may also give practical implications for the businesses by showing the impact of consumer's activities by social commerce constructs on the internet. Therefore, firms may develop social commerce constructs on their e-commerce platforms to create a social climate and produce online social support for their consumers. This supportive climate can be used for their new product development or co-creation of value for branding. They may develop a new brand by facilitating social interaction of consumers through social commerce constructs.



Research shows that social commerce constructs are useful tools for co-creation of value and co-branding (Hajli et al., 2014).

### **Limitations and future research direction of this paper**

One of the main limitations of this research is in the sample used. The majority of the participants (95%) were from the UK, making the results limited to a particular culture. Future research may test the model in other regions with other groups to support the general conclusions of the findings. The other obvious limitation of the present study again refers to the sample. The study collected the data in a specific SNS. Other SNSs need to be considered in future research to compare results. Hence, a follow up study taking these limitations into account can be of value in future research.

## Appendix

Codes	Scales
	<p style="text-align: center;"><b>Social Support</b> Adapted from Liang, Ho, Li, and Turban (2012) and Hajli (2014a)</p>
SE1	<i>Emotional Support</i> When faced with difficulties, some people on the Facebook comforted and encouraged me.
SE2	When faced with difficulties, some people on the Facebook listened to me talk about my private feelings.
SE3	When faced with difficulties, some people on the Facebook expressed interest and concern in my well-being.
	<i>Informational Support</i>
SI1	On the Facebook, some people would offer suggestions when I needed help.
SI2	When I encountered a problem, some people on the Facebook would give me information to help me overcome the problem.
SI3	When faced with difficulties, some people on the Facebook would help me discover the cause and provide me with suggestions.
	<p style="text-align: center;"><b>Social Commerce Intention</b> Adapted from Liang, Ho, Li, and Turban (2012) and Hajli (2014a)</p>
IB1	I am willing to provide my experiences and suggestions when my friends on the Facebook want my advice on buying something.
IB2	I am willing to buy the products recommended by my friends on Facebook.
IB3	I will consider the shopping experiences of my friends on Facebook when I want to shop.
	<p style="text-align: center;"><b>Social Commerce Constructs</b> Adapted from Hajli, N. (2014c)</p>
SCC1	I will ask my friends on forums and communities to provide me with their suggestions before I go shopping.
SCC2	I am willing to recommend a product that is worth buying to my friends on the Facebook.
SCC3	I am willing to share my own shopping experience with my friends on forums and communities or through ratings and reviews.
SCC4	I would like to use people's online recommendations to buy a product.

Questionnaire items

## References:

- Ahn, T., Ryu, S., & Han, I. (2004). The impact of the online and offline features on the user acceptance of Internet shopping malls. *Electronic Commerce Research and Applications*, 3(4), 405-420. doi: <http://dx.doi.org/10.1016/j.elerap.2004.05.001>
- Ambler, N., & Bui, T. (2011). Harnessing the Influence of Social Proof in Online Shopping: The Effect of Electronic Word of Mouth on Sales of Digital Microproducts. *International Journal of Electronic Commerce*, 16(2), 91-114.
- Ballantine, P. W., & Stephenson, R. J. (2011). Help me, I'm fat! Social support in online weight loss networks. *Journal of Consumer Behaviour*, 10(6), 332-337. doi: 10.1002/cb.374
- Bargh, J. A., & McKenna, K. Y. A. (2004). The Internet and social life. *Annu. Rev. Psychol.*, 55, 573-590.
- Barrera, M., Jr. (1986). Distinctions between social support concepts, measures, and models. *American Journal of Community Psychology*, 14(4), 413-445. doi: 10.1007/bf00922627
- Bourlakis, M., Papagiannidis, S., & Fox, H. (2008). E-Consumer Behaviour: Past, Present and Future Trajectories of an Evolving Retail Revolution. *International Journal of E-Business Research*, 4(3), 64-67,69,71-76.
- Cachia, R., Compañó, R., & Da Costa, O. (2007). Grasping the potential of online social networks for foresight. *Technological Forecasting and Social Change*, 74(8), 1179-1203. doi: <http://dx.doi.org/10.1016/j.techfore.2007.05.006>
- Chen, J., Xu, H., & Whinston, A. B. (2011). Moderated Online Communities and Quality of User-Generated Content. *Journal of Management Information Systems*, 28(2), 237-268.
- Chin, W. W. (1998). Issues and Opinion on Structural Equation Modeling, Editorial, *MIS Quarterly*, pp. 1-1. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=345479&site=ehost-live>
- Chris, F., Anindya, G., & Batia, W. (2008). Examining the Relationship Between Reviews and Sales: The Role of Reviewer Identity Disclosure in Electronic Markets. *Information Systems Research*, 19(3), 291-313,393-395. doi: 10.2307/2393235
- 10.1287/orsc.6.2.186
- Cobb, S. (1976). Presidential Address-1976. Social support as a moderator of life stress. *Psychosomatic Medicine*, 38(5), 300-314. doi: citeulike-article-id:8242015
- Constantinides, E., Romero, C. L., & Boria, M. A. G. (2008). Social media: a new frontier for retailers? *European Retail Research*, 22(1), 1-28.
- Corrocher, N. (2011). The adoption of Web 2.0 services: An empirical investigation. *Technological Forecasting and Social Change*, 78(4), 547-558. doi: <http://dx.doi.org/10.1016/j.techfore.2010.10.006>
- Crocker, J., & Canevello, A. (2008). Creating and Undermining Social Support in Communal Relationships: The Role of Compassionate and Self-Image Goals. *Journal of Personality & Social Psychology*, 95(3), 555-575.
- Dahan, E., & Hauser, J. R. (2002). The virtual customer. *Journal of Product Innovation Management*, 19(5), 332-353. doi: 10.1016/S0737-6782(02)00151-0
- Di Maria, E., & Finotto, V. (2008). Communities of Consumption and Made in Italy. *Industry & Innovation*, 15(2), 179-197. doi: 10.1080/13662710801954583
- Do-Hyung, P., Jumin, L., & Ingo, H. (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. doi: 10.2753/jec1086-4415110405
- Esposito Vinzi, V., Chin, W., Henseler, J., & Wang, H. (2010). *Handbook of Partial Least Squares*: Springer Berlin Heidelberg.
- Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1), 39-50. doi: 10.2307/3151312
- Füller, J., Mühlbacher, H., Matzler, K., & Jawecki, G. (2009). Consumer Empowerment Through Internet-Based Co-creation. *Journal of Management Information Systems*, 26(3), 71-102.
- Gefen, D. (2002). Reflections on the dimensions of trust and trustworthiness among online consumers. *Database for Advances in Information Systems*, 33(3), 38-53.
- 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., Rigdon, E. E., & Straub, D. (2011). An Update and Extension to SEM Guidelines for Administrative and Social Science Research. *MIS Quarterly*, 35(2), iii-A7.

- Gruzd, A., Wellman, B., & Takhteyev, Y. (2011). Imagining Twitter as an Imagined Community. *American Behavioral Scientist*, 55(10), 1294-1318. doi: 10.1177/0002764211409378
- Gu, B., Park, J., & Konana, P. (2012). Research Note—The Impact of External Word-of-Mouth Sources on Retailer Sales of High-Involvement Products. *Information Systems Research*, 23(1), 182-196. doi: 10.1287/isre.1100.0343
- Hajli, N. (2013). A Research Framework for Social Commerce Adoption. *Information Management & Computer Security*, 21(3), 1-1.
- Hajli, N. (2014a). The role of social support on relationship quality and social commerce. *Technological Forecasting and Social Change*, 87, 17-27.
- Hajli, N. (2014b). A Study of the Impact of Social Media on Consumers. *International Journal of Market Research*, 56(3), 388-404.
- Heinonen, K. (2011). Consumer activity in social media: Managerial approaches to consumers' social media behavior. *Journal of Consumer Behaviour*, 10(6), 356-364. doi: 10.1002/cb.376
- Hollenbeck, C. R., & Kaikati, A. M. (2012). Consumers' use of brands to reflect their actual and ideal selves on Facebook. *International Journal of Research in Marketing*, 29(4), 395-405. doi: 10.1016/j.ijresmar.2012.06.002
- Huang, M., Cai, F., Tsang, A. S. L., & Zhou, N. (2011). Making your online voice loud: the critical role of WOM information. *European Journal of Marketing*, 45(7/8), 1277-1297. doi: 10.1108/03090561111137714
- Huang, Z., & Benyoucef, M. (2013). From e-commerce to social commerce: A close look at design features. *Electronic Commerce Research and Applications*(0). doi: <http://dx.doi.org/10.1016/j.elerap.2012.12.003>
- Hwang, K. O., Ottenbacher, A. J., Green, A. P., Cannon-Diehl, M. R., Richardson, O., Bernstam, E. V., & Thomas, E. J. (2010). Social support in an Internet weight loss community. *International Journal of Medical Informatics*, 79(1), 5-13. doi: <http://dx.doi.org/10.1016/j.ijmedinf.2009.10.003>
- Joon, K., & Young-Gul, K. (2003). Sense of Virtual Community: A Conceptual Framework and Empirical Validation. *International Journal of Electronic Commerce*, 8(2), 75-93.
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons*, 53(1), 59-68. doi: 10.1016/j.bushor.2009.09.003
- Keller, K. L. (2009). Building strong brands in a modern marketing communications environment. *Journal of Marketing Communications*, 15(2-3), 139-155. doi: 10.1080/13527260902757530
- Kim, D. (2013). Under what conditions will social commerce business models survive? *Electronic Commerce Research and Applications*(0). doi: <http://dx.doi.org/10.1016/j.elerap.2012.12.002>
- Kozinets, R. V., de Valck, K., Wojnicki, A. C., & Wilner, S. J. S. (2010). Networked Narratives: Understanding Word-of-Mouth Marketing in Online Communities. *Journal of Marketing*, 74(2), 71-89. doi: 10.1509/jmkg.74.2.71
- Kraut, R., Kiesler, S., Boneva, B., Cummings, J., Helgeson, V., & Crawford, A. (2002). Internet paradox revisited. *Journal of social issues*, 58(1), 49-74.
- Liang, T.-P., Ho, Y.-T., Li, Y.-W., & Turban, E. (2011). What Drives Social Commerce: The Role of Social Support and Relationship Quality. *International Journal of Electronic Commerce*, 16(2), 69-90.
- 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, H.-P., & Hsiao, K.-L. (2010). The influence of extro/introversion on the intention to pay for social networking sites. *Information & Management*, 47(3), 150-157. doi: 10.1016/j.im.2010.01.003
- Maloney-Krichmar, D., & Preece, J. (2005). A multilevel analysis of sociability, usability, and community dynamics in an online health community. *ACM Transactions on Computer-Human Interaction*, 12(2), 201-232. doi: 10.1145/1067860.1067864
- Markus, M. L., & Robey, D. (1988). Information technology and organizational change: causal structure in theory and research. *Management science*, 34(5), 583-598.
- McLure Wasko, M., & Faraj, S. (2005). Why Should I Share? Examining Social Capital and Knowledge Contribution in Electronic Networks of Practice. *MIS Quarterly*, 29(1), 35-57.
- Naylor, R. W., Lambertson, 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. doi: 10.1509/jm.11.0105
- Obst, P., & Stafurik, J. (2010). Online we are all able bodied: Online psychological sense of community and social support found through membership of disability-specific websites promotes well-being for people living with a physical disability. *Journal of Community & Applied Social Psychology*, 20(6), 525-531. doi: 10.1002/casp.1067

- Pai, F.-Y., & Huang, K.-I. (2011). Applying the Technology Acceptance Model to the introduction of healthcare information systems. *Technological Forecasting and Social Change*, 78(4), 650-660. doi: <http://dx.doi.org/10.1016/j.techfore.2010.11.007>
- 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.
- Phillips, F. (2011). The state of technological and social change: Impressions. *Technological Forecasting and Social Change*, 78(6), 1072-1078. doi: <http://dx.doi.org/10.1016/j.techfore.2011.03.020>
- 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. doi: 10.1111/j.1467-9310.2006.00432.x
- Pitta, D. A., & Fowler, D. (2005). Online consumer communities and their value to new product developers. *The Journal of Product and Brand Management*, 14(4/5), 283-291.
- Rauyruen, P., & Miller, K. E. (2007). Relationship quality as a predictor of B2B customer loyalty. *Journal of Business Research*, 60(1), 21-31. doi: 10.1016/j.jbusres.2005.11.006
- Raykov, T. (1998). Coefficient Alpha and Composite Reliability With Interrelated Nonhomogeneous Items. *Applied Psychological Measurement*, 22(4), 375-385. doi: 10.1177/014662169802200407
- Ridings, C. M., & Gefen, D. (2004). Virtual Community Attraction: Why People Hang Out Online. *Journal of Computer-Mediated Communication*, 10(1).
- Riemer, K., & Lehrke, C. (2009). Biased Listing in Electronic Marketplaces: Exploring Its Implications in On-Line Hotel Distribution. *International Journal of Electronic Commerce*, 14(1), 55-78. doi: 10.2753/jec1086-4415140102
- Ringle, C. M., Sarstedt, M., & Straub, D. W. (2012). Editor's comments: a critical look at the use of PLS-SEM in MIS quarterly. *MIS Q.*, 36(1), iii-xiv.
- Senecal, S., & Nantel, J. (2004a). The influence of online product recommendation on consumers' online choices. *Journal of Retailing*, 80(2), 159-169. doi: 10.1016/j.jretai.2004.04.001
- Senecal, S., & Nantel, J. (2004b). The influence of online product recommendations on consumers' online choices. *Journal of Retailing*, 80(2), 159-169. doi: 10.1016/j.jretai.2004.04.001
- Stephen, A. T., & Toubia, O. (2010). Deriving Value from Social Commerce Networks. *Journal of Marketing Research (JMR)*, 47(2), 215-228. doi: 10.1509/jmkr.47.2.215
- Teoh, A. N., Chia, M. S. C., & Mohanraj, V. (2009). The Comparison Between Active and Passive Types of Social Support: The Emotional Responses1. *Journal of Applied Biobehavioral Research*, 14(2), 90-102. doi: 10.1111/j.1751-9861.2009.00042.x
- Tsai, Y.-H., Joe, S.-W., Lin, C.-P., Wang, R.-T., & Chang, Y.-H. (2012). Modeling the relationship between IT-mediated social capital and social support: Key mediating mechanisms of sense of group. *Technological Forecasting and Social Change*, 79(9), 1592-1604. doi: <http://dx.doi.org/10.1016/j.techfore.2012.05.013>
- Wang, X., Yu, C., & Wei, Y. (2012). Social Media Peer Communication and Impacts on Purchase Intentions: A Consumer Socialization Framework. *Journal of Interactive Marketing*, 26(4), 198-208. doi: 10.1016/j.intmar.2011.11.004
- Wang, Y. D., & Emurian, H. H. (2005). An overview of online trust: Concepts, elements, and implications. *Computers in Human Behavior*, 21(1), 105-125. doi: 10.1016/j.chb.2003.11.008
- Wangberg, S. C., Andreassen, H. K., Prokosch, H.-U., Santana, S. M. V., Sørensen, T., & Chronaki, C. E. (2008). Relations between Internet use, socio-economic status (SES), social support and subjective health. *Health Promotion International*, 23(1), 70-77. doi: 10.1093/heapro/dam039
- Wei, Y., Straub, D. W., & Poddar, A. (2011). The Power Of Many: An Assessment Of Managing Internet Group Purchasing. *Journal of Electronic Commerce Research*, 12(1), 19-43.
- Wellman, B., Salaff, J., Dimitrova, D., Garton, L., Gulia, M., & Haythornthwaite, C. (1996). Computer Networks as Social Networks: Collaborative Work, Telework, and Virtual Community. *Annual Review of Sociology*, 22(ArticleType: research-article / Full publication date: 1996 / Copyright © 1996 Annual Reviews), 213-238.
- Williams, S. W., Watkins, K., Daley, B., Courtenay, B., Davis, M., & Dymock, D. (2001). Facilitating cross-cultural online discussion groups: Implications for practice. *Distance Education*, 22(1), 151-167. doi: 10.1080/0158791010220110
- Wixom, B. H., & Watson, H. J. (2001). An Empirical Investigation of the Factors Affecting Data Warehousing Success. *MIS Quarterly*, 25(1), 17-41.
- Yubo, C., & Jinhong, X. (2005). Third-Party Product Review and Firm Marketing Strategy. *Marketing Science*, 24(2), 218-240. doi: 10.1287/mksc.1040.0089

Zwass, V. (2010). Co-Creation: Toward a Taxonomy and an Integrated Research Perspective. *International Journal of Electronic Commerce*, 15(1), 11-48. doi: 10.2753/jec1086-4415150101