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# Determinants and Impact of Online Social Interaction on Online Buying Behaviour

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**Abstract**

Interactions in the e-commerce between companies and consumers are mainly through the retailer's Web site, interactions in social media such as Facebook are mainly based on virtual activities between consumers and consumers. The primary purpose of this paper is to investigate the determinants of consumer buying behaviour and the role of online social interaction on online buying. Results of natural experiment indicate that online social interaction among the consumers will change the opinion of buying behaviour.

*Keywords:* Social Media, Online Social Interaction, Social Influence, Consumer Buying Behaviour, Field Experiment.

## 1. Introduction

With the advances of the Internet technologies, social media communication channel has become a new kind of medium that connects business to business, business to consumer, and consumer to consumer. Before the Internet era, communication were limited by available technology like word-of-mouth, letters, and telephone and constrained by location, to certain family members, friends, colleagues, and acquaintances. The current trend of social media communication channel encompasses a wide range of online communication such as word of mouth, forums (e.g., blogs, discussion boards, chat rooms, e-mail, and consumer product or service rating websites) and social networking

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sites (Cummins, Peltier, Schibrowsky & Nill, 2014). Among the best known of social media are Facebook, LinkedIn, Instagram, Twitter, etc. Each of these are used by hundreds of millions of people, and most importantly now by businesses.

Social media communication channel provides opportunities for firms to connect and interact with the trading partners and consumers with greater reach (Thackeray, Rosemary, Neiger, Hanson & McKenzie, 2008). For instance, social media connect business to business by coordinating and controlling the promotional elements to produce a target customer and achieve firms' objectives. At the same time firms are using social media communications to develop market opportunity, market penetration and market development through observation and involvement of consumers. This social media interaction by firms also allows for value creation such as brand awareness, brand consciousness and brand community among consumer (Hutter, Hautz, Dennhardt & Fuller, 2013; Laroche, Habibi & Richard,2013). With this social media communication, businesses are now focus on the consumer social oriented rather than product oriented (Huang & Benyoucef, 2013). All these value creations are made possible because firms can generate their own online content using this new form social media to engage themselves with the consumers.

Most importantly, this new social media interaction also allow consumers to generate content and interact among themselves online (Lai & Turban 2008; Gruzd et al. 2011). For example, social media communications allow consumers to become active co-constructors of life experiences and meanings of product consumption (Firat and Dholakia, 2006). This life experiences and meanings of product consumption by consumers provide a symbolic value to other consumers that go beyond the consumers' need based on the benefits that a product can offer ((Royo-Vela & Casamassima, 2011; Schau, Muniz & Arnould , 2009; Dobers & Strannegard, 2005). Thus, consumers can make social identity statements about the product among the consumers (McIntyre and Miller, 1992). The advent social media communication channel has extended consumers' options for gathering unbiased product information from other consumers. The social media communication channel provides the opportunity for consumers to offer their own consumption-related advice by engaging and interacting among themselves (Mangold & Faulds, 2009).

Many consumers tend to wait for the opinions of early consumers before making a buying decision to reduce the risk of buying unnecessary new product (Kim and Srivastava, 2007). They can learn from and be affected by other consumers' opinions and/or others' actual buying decisions. For instance, when choosing between two restaurants, an individual may be heavily influenced by the opinions and experiences of her friends or by simply observing other diners in the restaurant even though they do not know the diner identities and reasons for the diners choosing the restaurant (Becker 1991). According to Sinha and Swearingen (2001), consumers are far more likely to believe recommendations from people they know and trust (i.e., friends and family-members) and people with similar experience build the trust based on common experience (Zhang & Gu, 2015).  Hence, consumers tend to be influenced by their social interactions with others when they make buying decisions (Godes et al. 2005). Rather than from automated recommender systems, consumers are far more likely to believe information and opinions from trusted acquaintances and are convinced to make purchase.

Quinn and Dutton (2001) suggest social interaction can generate and diminish the feelings of enthusiasm and confidence by individual that in turn affect a range of outcomes (e.g., decision and action). Therefore, social interaction among people is significant. According to a medical report by University of Rochester medical Center (2014), social interaction will contribute to better health, high self-esteem and low mood disorders such as anxiety and depress. Whereas those people with deficiency of social interaction will have feelings of distress and depression (Rauktis, Koeske & Tereshko,1995). In the offline context, social interaction is an ongoing social process, whereby value is created when there negotiations among various stakeholders. However, they also impose new challenges because separate strategic actions are often required to manage social interaction. Key business factors of social media allow consumers to estimate products, make recommendations to contacts or friends, and share any of the purchases through their social media. While advances in technology (i.e., the Internet and social media) can facilitate and manage consumer social interaction, the role and significant of social interaction among consumers related to buying behavior are still unknown. The existing body of knowledge still falls short in explaining the present online purchasing behavior through using social interaction, which represents a new and different context. In line with these arguments, this study focuses the online social interaction and change of opinion on buying behaviour.

## 2. Theoretical Background

The theoretical bases for these study derived from different theoretical foundation that closely interrelated in both Information Systems and marketing research: the stages of decision process in eCommerce buying behaviour by consumers, the dimension of the web experience factors; and the social interaction theory and role of tie strength, The review begins with an overview of the advances in eCommerce. The significant role of social media on eCommerce to both firms and consumers are also discussed. A brief review of relevant prior research in each theoretical stream is presented.

### 2.1. Overview of the Advances in eCommerce

In recent years, eCommerce sales have been the main growth engine for the retail sector. The usage of eCommerce have exploded for developed countries (Nielsen, 2013) and become a dominant distance sales channel and accounts for around $1.2 trillion in 2013 and expected to reach $1.8 trillion by 2016 (eMarketer, 2013). For example in Europe, the retail eCommerce is growing drastically compare to retail sales which drop to 0.7% due to the rain and snow that may have contributed to the rising of digital sales (eMarketer, 2013). United States is still the leader for the consumption of eCommerce sales, with UK consumers being the most avid shoppers and buyers around the world (eMarketer, 2013). Not surprisingly, China is leading the Asia Pacific region, being the second in worldwide for eCommerce sales through 2017 (eMarketer, 2014). Meanwhile, South Korea retail eCommerce sales expected to increase about 11% to reach $36.78 billion and account for retail sales has estimated for 9.8% for the country (eMarketer,2015). Similarly, the retail sector in developing countries is also experiencing e-Commerce sales as their growth engine. For examples, India and Indonesia are also drives their regional growth in retail e-commerce sales (eMarketer, 2013).As of 2015, the  eCommerce sales in India are set to account for 0.9 percent of all retail sales in India, but this figure is also expected to grow in the near future, reaching 1.4 percent in 2018 (eMarketer,2015). According to Nielsen (2014) Malaysia eCommerce sales reported that (68%) of Malaysian consumers are more likely to go online and browse the product before buying the product. With the advancement of Internet, electronic commerce (eCommerce) has dramatically changed the landscape of global retail sector.

Many businesses have realized that they have to make eCommerce an integral part of their business model. Drawing from the literature on marketing, business are now integrating and/or shifting from brick and mortar into eCommerce to meet certain customer needs through interaction in computer mediated environments (Hoffman & Novak, 2009). On the other hand, Okazaki (2006) and Parasuraman, Zeithaml & Malhortra (2005) state that the reason businesses are integrating and shifting to e-commerce is to identify the subjective perceptions of an integrated bundle of information experiences that evoke in the mind of a customer for a certain personality presence and performance. However, prior studies indicate that by providing information about product that then create excessive information flow and their focus on the latest technology embedded in their eCommerce platform due to online nature of eCommerce that associated with lack of physical clues (Helm,2007; Simmons, 2008; Kollman & Suckow, 2008). Thus this become a challenges to the eCommerce business because the advancement of the internet opens up the possibility of interactivity and user experience where consumers can empowered themselves to interact and engage with another consumers about the product (Vivek, Beatty & Morgan, 2012;Moynagh & Worsley,2002).

### 2.2. The Role of Social Media in eCommerce Environment

Social media and Web 2.0 have provided a huge potential to transform e-Commerce into more organizable approach and supports knowledge management for new business (Lee, 2011). Web 2.0 possesses an open structure which allows the creation and exchange of user generated content, whereby the content is not consumed by people passively; instead it is produced, shared and consumed by users actively generated content (UGC) (Akrimi & Khemakhem, 2012). With both of these applications embedded into eCommerce, allow consumers to have their own incentives to join and have rich interactions with many people and participate in the sharing of that information and reshaped consumers into information seeking and sharing behaviour (Bronner & Hoog, 2012; Akhrimi & Khemakhem, 2012). The desire for social interaction is an essential psychological need of individual to feel socially connected (Sarason, 1974; Hennig-

Thurau,Gwinner, Walsh & Gremler; 2004). By connecting with social media and feel for belongingness (Gangadharbhatla, 2008; Tardini & Cantoni, 2005) create their own community (Laroche, Habibi & Richard, 2013). Due to this opportunities, eCommerce retailers be able to capture consumer's behaviour, which gives them insights into their shopping needs, creativity and experiences with expectation in the production of communication messages and the design of their products. As argued by Constantinides and Fountain (2008), in the e-Commerce environment, Web 2.0 shifts market power from companies to consumers. Furthermore, since their needs are altered by the increasing requirements for online services and applications, consumers are looking for more social and interactive ways to stimulate engagement. By integrating social media to the e-Commerce model provide customers with new approaches to interact with marketers and peers communities. Therefore, social media creates challenges to the marketers as information provided by retailers of consumer goods is no longer the major factor influencing these decisions, but more on the opinions and experiences from other consumers are seeks by consumers, which is known as 'prosumerism that (Sigala, 2011).

### 2.3. Decision Making Process Stages in eCommerce

As shown in Figure 1, there are five stages to the decision making process in eCommerce to evaluate the online buying decision.  Stage 1 is consumer recognition on making decision whether to go or not to go on an eCommerce website. Stage 2 is consumers search for information and make decision to buy or not the product based on the information that they get. The third stage is to consumer decision on to rate a review or not based evaluation of the information before making the purchase decision. This is follow by the fourth stage that decision making process of the consumer in eCommerce either to buy the product from the eCommerce site or from others eCommerce site. The final stage is after buy evaluation, whereby consumer decision making about the product and to write a review or not by rating the review based on the information that influenced them to buying decision. Overall all of this decision making process (to buy or not to buy) in eCommerce website is based on the social interaction among the consumers about the product. For instance, if the review and ratings of the product is good but the change of opinion of the other consumers through the social media is negative or positive it will influence the consumer buying decision (i.e, rationale, impulsive and avoidance).

Due to the change of consumer buying decision, the objective of this study is to investigate the web experience on consumer buying decision and the role of social interaction on change of opinion in buying decision. The stages of eCommerce decision making that involve in this study is three stages such as at the Stage 2, 3 and 4. As in the Kim & Srivastava (2011) research, the empirical evidence is only involves social interaction on change of on Stage 3 and 6. However, to fill the research gap on the social interaction on change of opinion in online buying decision, this study will investigate the online buying decision on three stages that is the information search stage, evaluation stage and purchase stage. Based on the illustration Figure: 1, this study will investigate on the decision process of eCommerce at the three stages such as the decision 2, 3 and 4.

### 2.4. The Web Experience Dimensions and Buying Decision

One of the determinants that have been the interest of many IS and marketing researchers are influence of web experience on online buying decision. Web experience factors was first discuss by Constantindes (2004).

According to Constantinides (2004) web experience is a combination of online functionality, information, emotions, cues, stimuli and products or services or a complex mix of elements that beyond the 4Ps of traditional marketing mix. The web experience embraces elements like searching, browsing, finding, selecting, comparing and evaluating the information as well as interacting with the online firm. Constantinides (2004) describes web experience as the consumer's total impression about the online company not only  addressing the consumer's product needs and expectations but also assisting the consumers through the steps of the buying process which likely to influence the buying decision of the online consumer. This research supported by Constantinides (2002) that propose web experience as the consumer's whole perception about the online company. Constantinides (2004) suggests that web experience is consists of five elements such as usability, interactivity, aesthetics, trust, and marketing mix.  Prior studies of web experience are developed by using flow theory (Constantinides, 2004). The findings of Constantinides (2003) comprehensive literature review are summarized in a model depicting the main categories of factors affecting

the online consumer. The study identifies three groups of web experience – functional factor, psychological factor and content factor (llustrate in Figure 1). On the contrary,,Fang (2014) proposes that electronic window dressing features (EWDs) is represent a symbolic presentation of the eCommerce website. According to Fang (2014) EWDs is related to the presentation of electronic word of mouth reviews that involve external links, graphics and technology. Meanwhile, site commitment is also a new variable to the psychological dimension in this study. According to Park & Kim (2003), site commitment is refer as enduring desire to maintain a valued relationship with the eCommerce website. In their research indicate that site commitment is significant on online buying behavior. On other hand, many researchers have investigated the relationship between commitment and future interaction (Garbarino & Johnson, 1999; Hocutt,1998). Figure 3 illustrate the model of site commitment on buying behavior.

### 2.5. Online Social Interaction and Buying Decision

Online social interactions can be divided into opinion-based social interaction and behavior-based social interaction (Chen et al. 2011; Cheung et al. 2012). Opinion-based social interaction, also known as online reviews, refers to any positive or negative online consumer opinions toward products and sellers (Henning-Thurau et al. 2004). Behavior-based social interaction, which refers to observational learning, indicates that consumers make purchase decision based on observing the purchase actions of others. Lee et al. (2010) indicate that such a strong social influence exists in various social groups. Since blogs are social networks that play an important part in the diffusion of information among consumers (Steyer et al., 2006), increased online social interactions among bloggers lead to the diffusion of ideas, knowledge, experience as well as best practices, fashion and trends on the web. In addition, increasing social presence is supplemented with graphics, animation, video and sound that increase the velocity of interactions, support collaboration and maintain online connections (Wellman et al., 1996).

In online environments, many consumers prefer to search product opinions and recommendations from other consumers for product quality inference and uncertainty reduction. Hence, it is important to examine whether a consumer will adopt online reviews and assess their influence on purchase decision (Cheung et al. 2009).

### 3. Research Model and Hypotheses Development

3.1 Problem statement and hypotheses

The study's first objective is to examine the web experience factors that influence online buying behaviour based on Kim and Srivastava (2007) approach to explain and predict people's willingness to buy online. Therefore, this research tries to fill the gap of the previous studies (Constantinides, 2002): the web experience factors of online buying. The web experience factors (electronic window dressing and site commitment) is necessary because Constantinides (2004) proposed a web experience factors (usability, interactivity, online trust, aesthetics and marketing mix) which had not done on the consequences of online social interaction. Meanwhile, Fang (2014) and Hutter et al (2013) have conducted a study to the online buying behavior but the research had not proposed specific web experience factors as in Constantinides (2004). Constantinides (2004) did not include electronic window dressing and site commitment in a single model.

The second objective of this study is to investigate the role of online social interaction in online buying behaviour as to fill the gap of online social interaction relationships with the impulsive online buying as examined by (Zhang, Hu & Zhao, 2014) in the context of online shopping. Therefore this study is to examine the web experience factors that influence on online buying behaviour and to investigate the online social interaction roles in the relationship with change of opinion in the social media context.

Drawing upon the theoretical background of this research, we propose that online social interactions may serve as important stimuli in consumer's online buying behaviour. This study hypothesize that web experience (i.e, usability, interactivity, online trust, aesthetics, marketing mix, electronic window dressing and site commitment) are key determinants of online buying behaviour. Online social interaction positively affects change of opinion which further leads to consumers' online buying. Figure.1 illustrates the research model of this study.
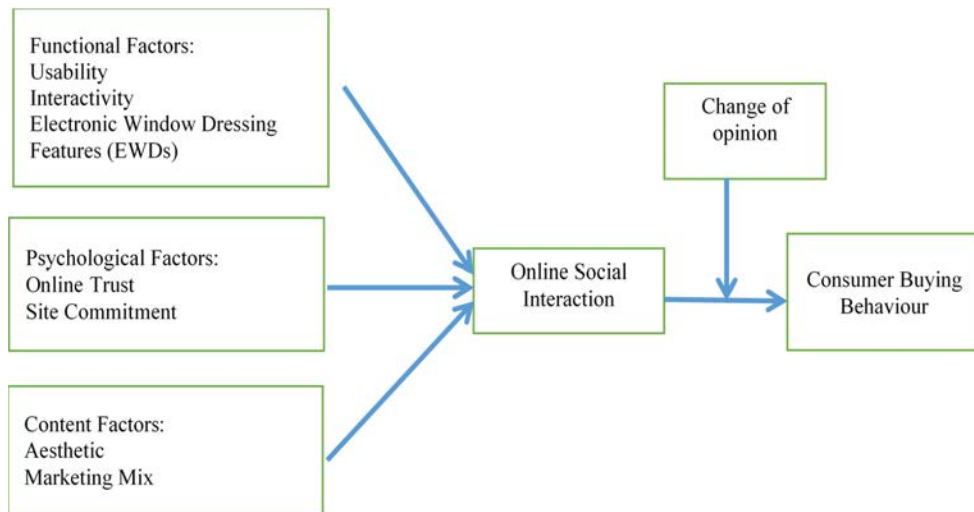
Fig. 1. Research Model

## Acknowledgements

## References

Akrimi,Y. & Khemakhem,R. (2012). What Drive Consumers to Spread the Word in Social Media? Journal of Marketing Research and Case Studies. (14).

Bagozzi, R. P., & Lee, K. H. (2002). Multiple routes for social influence: The role of compliance, internalization, and social identity. Social Psychology Quarterly, 65(3), 226-247

Bandura, A., 1986. Social foundations of thought and action: A Social Cognitive Theory. Englewood Cliffs,NJ: Prentice-Hall.

Baron, S., Patterson, A. and Harris, K. Beyond technology acceptance: Understanding consumer practice. International Journal of Service Industry Management 17, 2 (2006), 111–135.

Blau, P., 1964. Exchange and power in social life. New York:John Wiley & Sons.

Blumler,J.G and McQuail, D(1969). Television in Politics.Chicago: University of Chicago Press

Chapin, F. S.(1936). Social Theory and Social Action. American Sociological Review 1, (1) 1-11.

Choi,H.J & Scott.E.J (2013). Electronic Word of Mouth and Knowledge Sharing on Social Network Sites: A Social Capital Perspective. Journal of Theoretical and Applied Electronic Commerce Research. 8(1),69-82.

Constantinides, E. & Fountain,S.J. (2008). Web 2.0: Conceptual foundations and marketing issues. Journal of Direct, Data and Digital Marketing Practice, 9,3,231-244.

Goldsmith, R.E. & Horowitz,D. (2006). Measuring Motivations for Online Opinion Seeking. Journal of Interactive Advertising, 6,2,3-14.

Huang, Z. & Benyoucef, M.(2013) From e-commerce to social commerce: A close look at design features. Journal of Electronic Commerce Research and Applications. 12, 246-259.

KaplanA.M., & Haenlein, M. (2010).Users of the world,unite! challenges and opportunities of social media. Business Horizons.,53(1), 59-68.

Kumar,S., Walfried,R.M, Lassar,G. & Butaney, T.(2014). The mediating impact of stickiness and loyalty on word of mouth promotion of retail website: A consumer perspective. European Journal of Marketing,48,9-10,1828-1849.

Kwahk,Y.K & Ge,X. (2012). The Effects of Social Media on E-commerce: A Perspective of Social Impact Theory. 45th Hawaii International Conference on System Sciences, Hawaii.

Laroche, M., Habibi, R.M, & Richard,O.M. (2013). To be or not to be in social media: How brand loyalty is affected by social media? International Journal of Information Management, (33),76-82.

Lee, M. K. O., Cheung, C. M. K. Cheung, Sia, C. L. and Lim, K. H. How Positive Informational Social Influence Affects Consumer's Decision of Internet Shopping? In Proceedings of the 39th Hawaii International Conference on System Sciences (HICSS'06), (Hawaii, USA, 2006), 115-124.

Royo-Vela, M. & Casamassima,P.(2011). The Influence of Belonging to Virtual Brand Communities on Consumers Affective Commitment, Satisfaction and Word of Mouth Advertising: The ZARA Case. Online Information Review, 35 (4), 517-542.

Sarason,S.B. (1974). The psychological sense of community: Prospects for the community psychology. San Francisco: Jossey-Bass.

Shiri D. Vivek , Sharon E. Beatty & Robert M. Morgan (2012) Customer Engagement: Exploring Customer Relationships Beyond Purchase, Journal of Marketing Theory and Practice, 20:2, 122-146.

Shim,I.S, Forsythe,S. & Kwon,S.W.(2015). Impact of Online Flow on Brand Experience and Loyalty. Journal of Electronic Commerce Research.16,56-71.

Stephen,A.T & Toubia,O. (2009) Deriving value from social commerce networks. Journal of Marketing Research,47,2,215-228.

Vannoy, S. A. and Palvia, P. (2010) "The Social Influence Model of Technology  Adoption." Communications of the ACM. 53(6), 149-153.

Wathen, C.N., and Burkell, J.(2002).  Believe it or not: Factors influencing credibility on the Web. Journal of the American Society for Information Science and Technology, 53(2 ), 134–144.

Wasko, M.M. and Faraj, S., 2005. Why should i share?Examining social capital and knowledge contribution in electronic networks of practice. MIS Quarterly, 29 (1),35 58.

Wigand,R.T, Benjamin,R.I, & Birkland, J.(2008). Web 2.0 and Beyond: Implications for Electronic Commerce. In Proceedings of the 10th International Conference on Electronic Commerce, Innsbruck, Austria, August, ACM Press, New York, NY.

Winter, S.J.; Saunders, C.; and Hart, P. Electronic window dressing: Impression management with Websites. European Journal of Information Systems, 12 (2003), 309–322.