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# The effects of Facebook browsing and usage intensity on impulse purchase in f-commerce

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A B S T R A C T

Due to the rapid advancements in Web 2.0 and social media, a novel class of online social business called Facebook commerce (*f*-commerce) has emerged. Even though there are studies on the factors that influence Facebook browsing and usage intensity, however, there is dearth in research that examine the impacts of *f*-commerce browsing and usage intensity on consumers' urge to purchase and impulse purchase. Unlike previous studies, this study examined the moderating effect of income. Since Facebook has become a phenomenon, there is a necessity to explore whether the level of *f*-commerce browsing and usage intensity can trigger urge to purchase and impulse purchase. Following the *Stimulus-Organism-Response* framework, data was collected using mall-intercept technique and analyzed with *SmartPLS* 3. Majority of the suggested hypotheses have been empirically validated and the research framework can explain 33.0% of variance in urge to purchase and 61.7% variance in impulse purchase. Interestingly, the finding showed no moderating effect of income. However, marital status and Internet hours were found to have moderating effects. The research findings can contribute to the online retailers, marketers and other *f*-commerce stakeholders in formulating their marketing strategies and policies while providing novel insight in understanding the impulse purchase behavior.



## 1. Introduction

The emergence of social networking sites or SNSs as well as Web 2.0 has created a novel genre of electronic commerce (*e*-commerce) identified as Facebook-commerce (*f*-commerce). This revolutionary progression has enlarged the consumer markets by tapping into the enormous population of the social media users. However, there are several significant dissimilarities among *e*-commerce and *f*-commerce. From marketing perspective, the focus of *e*-commerce is to maximize shopping efficiency by offering product catalogues, advanced search, product recommendations and one-click purchasing while *f*-commerce focuses on direct social activities like networking, collaboration and sharing with a secondary attention on online shopping (Huang & Benyoucef, 2013). In terms of consumer control, in *e*-commerce, consumers normally communicate personally and independently with the *e*-commerce websites and have restricted or no control as messages and exchanges are controlled by the companies. However, in *f*-commerce which engages real time involvement, consumers are empowered with control and hence reducing the physical distance between companies and the consumers (Constantinides & Fountain, 2008) since their choices and decisions rely not merely on information provided by the sellers but also the user generated content (UGC) by other consumers which carries its own economic value to companies (Hajli & Sims, 2015; Hajli, 2015). From the context of system interaction, *e*-commerce normally offers one-directional browsing as consumer's information is seldom shared with other consumers. Unlike *e*-commerce, *f*-commerce provides a more interactive social collaborative online experience as collective intelligence will be accumulated and employed to assist other consumers in their purchase decision making processes. Essentially, the value added by the consumers will be strengthened tremendously via the collaborative efforts of the consumer networks in Facebook that ultimately lead to better decision making. Consumers' recommendations, referrals and conversations occur within *f*-commerce

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will create huge impact compared to the conventional marketing messages.

Facebook has grown tremendously for the past decade and this can be credited to social interaction that leads to word-of-mouth marketing, social capital building and advocacy of product brand (Jin, 2013). Companies are utilizing Facebook for various purposes which include community building to generate conversations and increase fan base; for marketing and promotion to increase awareness of upcoming events or sales; and also for advertising to increase brand awareness. According to Ng (2013), *f*-commerce can be categorized into two groups 1) companies that connect to Facebook with apps and fan pages which bring potential consumers to their websites (e.g. Gap, TripAdvisor, Levis, Mazda, Amazon, etc.) and 2) companies that link to Facebook via fan pages and apps and enable prospective consumers to purchase straight from their Facebook stores (e.g. Watson Malaysia, Groupon USA, Pantene North America, Hallmark, etc.). The focal goal of these companies is to use Facebook for consumer engagement, special offer promotions and to promote better social interactions among consumers and their friends.

It was reported by Statista (2017) that among all the SNSs, Facebook has 1.968 billion users trailed by *WhatsApp* (1.2 billion), *Youtube* (1 billion), *Messenger* (1 billion), *WeChat* (998 million), *QQ* (868 million) and *Instagram* (600 million). Being a potential profit-making model, the social web shopping has been used by many companies (Gao, 2012). Due to its high accessibility and low costs, Facebook fan pages have been the main platform whereby consumers can interact and communicate with various brands (Martínez-Navarro & Bigné, 2017). eMarketer (2015) forecasted that global SNS spending to reach 29.91 billion in 2016 and continue to achieve 35.98 billion (i.e. 16% of the global digital advertisement expenditure) in 2017. Nearly 74% of US business organizations have utilized SNSs (Awareness.com, 2015) while almost 88% of them are willing to spend more on social media integrations (Constantinides, Romero, & Boria, 2008). It was further mentioned by McKinsey that 70% of business organizations use SNSs to improve their business and 90% of them are managed to gain benefits from it (Chen, Shen, & Chen, 2014).

In addition to that, McKinsey also reported that over 300 million Chinese shoppers utilize social media to gather product information (Akman & Mishra, 2017). Furthermore, 85% of Asian marketers choose social media as a main source of business disclosure and 48% of them are able to lower down their expenditures through SNSs while 45% of big and small traders registered on social media to promote sales (Akman & Mishra, 2017). As a matter of fact, investment in SNSs by US business organizations' is predicted to reach 4.6 billion USD in 2013 (Braceweel, de Lussanet, & Camus, 2008). The worldwide profits produced by SNSs is estimated to achieve USD 30 billion and USD 80 billion in 2015 and 2020 respectively (Chen & Shen, 2015). A study showed that about 83% of users are prone to share purchase information with friends in SNSs and nearly 67% of them will take buying decisions according to friends' recommendations (Marsden, 2009).

It is reported by Ng (2013) that ten to fifteen percent of buyers in developed nations may go to SNSs (e.g. Facebook) to make purchase between the years 2011–2015. Another study that involved 1787 social media respondents indicates that 1/3 of purchasers like to make direct purchase from Facebook, which has powerful Social Plugins such as "Like", "Comment", "Send", "Recommendation" and other buttons as well as the Open Graph Protocol (Ng, 2013). Api2cart (2017) indicated that Facebook's ad revenue has increased by more than 42% since 2014 and is anticipated to reach nearly 27 billion USD by the end of 2017. It also revealed that 73% of users who have attempted social buy buttons said they would repeat the act. The worldwide social media spending has doubled from 16 billion in 2014 to 31 billion in 2016 and Facebook continues to lead the ad revenue in 2016 with a 67.9% of social media ad spending (Oursocialtimes, 2017).

Furthermore, the popularity and proliferation of mobile Internet-enabled gadgets such as tablets and smartphones have offered new opportunities for online marketers and retailers to reach the huge potential buyers who are browsing Facebook stores or pages. As a matter of fact, according to TNS's recent survey, 94% of Malaysians came across brands and products on Facebook and 62% of them make purchase decision following the discovery (Thestar.com, 2016). It is obvious that *f*-commerce will become the new paradigm of *e*-commerce in the years to come with a huge potential of generating new revenues and markets to all stakeholders (Leong, Jaafar, & Sulaiman, 2017). Although there are numerous studies done on *e*-commerce, very few attentions have been given towards the new context of *f*-commerce. Furthermore, the focus of the existing research on *e*-commerce and *f*-commerce has been on purchase intention rather than impulse purchase. Therefore, it would be interesting to see whether there are any differences between the findings from this research and the previous researches.

In academic perspective, the limited *f*-commerce studies have several deficiencies that need to be appropriately addressed. For example, the survey instruments (e.g. Chung, Song, & Lee, 2017; Kang & Johnson, 2015; Sukrat, Papasratorn, & Chongsuphajaisiddhi, 2015; Suraworachet, Premsiri, & Cooharojananone, 2012) have not been rigorously validated and scientifically developed through various procedures such as expert panel review, *Q*-sort, content validity index and etc. Furthermore, except for Sukrat et al. (2015) who have examined the assumptions of normality and multicollinearity, the other studies have not tested the four fundamental multivariate assumptions of normality, homoscedasticity, multicollinearity and linearity; hence rendering the questions on the validity of the statistical results in these studies. More importantly, since both independent and dependent variables were gathered using a common survey instrument, it is a necessity to examine the common method bias (CMB). However, except for Chung et al. (2017), none of these studies have tested for CMB and thus we argue that the results of these studies may be compromised due to CMB. Last but not the least, Chen, Su, and Widjaja (2016) used an experimental approach in their study and since the respondents realized that they have been put in an artificial setting, their responses and behaviors were not genuine and natural. Therefore, we argue that the findings may have been subjected to the *Hawthorne* effect. Hence, based on these reasons, there is indeed a need to narrow down the existing research gap while providing useful insight and understanding on impulse purchase in *f*-commerce for the online marketers and retailers in formulating their marketing strategies and policies.

## 2. Literature review

### 2.1. Defining *f*-commerce

Currently there are various definitions for *f*-commerce. Shin (2013) defined *f*-commerce as a subcategory of social-commerce (s-commerce) that utilizes Facebook, a social network service that facilitates user contributions and social interaction, to support online selling and buying of services and products. However, Chen et al. (2014) referred *f*-commerce as commercial and business activities using Facebook to facilitate social interactions and stimulate consumer contributions in facilitating online business deals. According to Market Business News (2017), *f*-commerce is a term used in the online business world that focuses on developing and