Social Commerce Success Factors and Customer Satisfaction: Facebook Brand Page Platform

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ABSTRACT

Social networking has experienced a huge transformation over a few decades. As one of the most popular social network, Facebook has become a powerful tool in business activities. The studies that related to the Information System (IS) success factors on Facebook application and social commerce user satisfaction are limited. This study aims to investigate the social commerce user satisfaction towards the application by examining the influence of Information System Success (ISS) factors; Information Quality, System Quality and Service Quality. In this study, 354 questionnaires were collected from three Facebook's consumer product brand pages. The result revealed that Information Quality factor has major influences compared to other factors toward customer satisfaction among the social commerce users with. Meanwhile the factor of Service Quality for the Facebook's brand pages was excluded from the research because the items are irrelevant with the variable.

Keywords: E-Commerce, Social Media, Social Commerce, Information System Success Factors, Customer Satisfaction, Facebook Brand Page

INTRODUCTION

The Internet dramatically changed the way of doing business and has extended the market wider and more accessible (Mujiyana 2013). It also embraces the perfect online process in term of developing, marketing, selling, delivering, servicing and transaction of payment of the product and services that can be accomplished through the worldwide network of business partner support within internetworked, global marketplaces of customers (Di Maggio et al.2001; Manasian 2003; Marakas & O'Brien 2014).

Nowadays social media has been widely used by the business entities for their commercial activities that has changed the communication way among business communities (Henning-Thurau et. al 2004; Mata & Quesada 2014). Thus, this platform provides virtual space for the people to communicate through the Internet and becoming as an important consumer socialization agent

(Ou et. al 2010; Hajli 2014). Besides, the social network is often considered as social media (Kwak, Lee, & Moon 2010)**.**

Social commerce (SC) is a part of social media where the seller will use the social media to promote their products and services that indirectly influence any potential customer to purchase the merchandises by reviewing them (Hsu & Chen 2014). The online business satisfaction can be measured towards SC because customer satisfaction is perceived to be an important indicator for long-term organizational success (Anderson & Srinivasan 2003). Moreover, the level of customer satisfaction depends on the effectiveness and quality (information and system qualities) of SC website and can give major impacts to the customer's SC experience especially during an interaction (Alshibly 2014). The customer loyalty is easy to create when website quality recently improving customer satisfaction and strive to fulfill the desire (Parasuraman et. al 2005).

Customer as a SC user principally interacting with the business website and their satisfaction is important to measure the user interface and content of the website (Fang, Chiu & Wang 2011). This platform will indirectly build the feelings that facilitate the formation of trust. Various factors such as information quality, communication and word-of- mouth that created by the consumer themselves can affect towards SC trustworthy and the business transaction may only occur when their confidence level to e-commerce environment have increased (Linda 2010). However, there are uncertainty effects may happen that caused by the absent of no *buyer-seller* face-to-face interaction. Several other SC factors also need to be considered to support the process of customer decision making and to encourage the customers to proceed with the transaction without jeopardizing customer perceive value (Constantinides et. al 2008). Therefore, the objective of this study is to investigate the relationship between the SC information success factors and customer satisfaction among SC users.

CUSTOMER SATISFACTION

Parasuraman et. al (1988) differentiated the service quality and satisfaction and identified only the specific transaction will be relevant to customer satisfaction. By achieving the higher satisfactory of the customer, it could contribute to the loyalty of the customer towards the products or services (Parasuraman & Grewal 2000). Specifically, satisfaction could be improved through the appropriate service quality to treat the customers, which contribute to the positive value (Cronin, Brady, & Hult 2000).

With the Internet technology advancement, the social media platforms have played an important role and dominant as compared to the traditional media (Mustafa & Hamzah 2011). The popularity of social media has increased from time to time, for example Facebook has registered more than 175 million active users in 2009 (Kaplan & Haenlein 2010; Liang et. al 2011). With the emergence of Web 2.0 technologies, it may influence the possibility of e-commerce transformation to SC based platform where the characteristic of SC's virality capability can be utilized effectively in promoting the products and services (Linda 2010; Wigand et al. 2012; Alshibly 2014).

SOCIAL COMMERCE AND CUSTOMER SATISFACTION

In evaluating the successfulness of IS, DeLone and McLean (2003) reintroduced a new IS model according to the e-commerce environment with the main key drivers are System Quality (SysQ), Information Quality (IQ) and Service Quality (SerQ) with user satisfaction as one of its outcomes (Chuang & Fan 2011). SysQ measures quality desire of characteristics of an IS which could extend to the usability, availability system, reliability, and system adaptability, ease of understanding, system flexibility, advancement and responsiveness (DeLone & McLean 2003). Meanwhile IQ is the quality of output system characteristics in disseminating the information through the e-commerce/SC content issue on the website, such as relevancy, accuracy, understandable, security, currency, timeliness and usability (Forsulund 2007). SerQ is the quality of overall support of the IS's platform service providers that can be obtained by the users from the specific person/entity related to the system, which are subjected to responsiveness, accuracy, reliability, technical competence, empathy of the personnel staff. It is also about the quality that can be evaluated based on user experiences by using the system application (Urbach & Muller 2012). Although there are several dimensions of SC have been identified in evaluating customer satisfaction, majority of other researchers had used Delone and McLean (2003)'s model as a foundation of their studies (Chong, Cates & Rauniar 2010).

However, the success of IS usage is heavily depending on the user satisfaction of the system (Seddon 1997). Furthermore, Pather et al. (2003) and Terry and Standing (2004) stressed that the role of customer as the users of social commerce as a basic element in the business website interaction. In order to ensure the IS success, it is important for customer satisfaction aspects to be evaluated towards user interface and content of IS websites (Fang, Chiu and Wang 2011).

Alshibly (2015) discovered that all dimensions used (online service quality, online trust, information value and social value) of the social commerce environment, have significant effects on customer satisfaction. The higher customer perceived value, the priority marketing tool to be prepared in order to maintain customer satisfaction in social commerce websites.

In this study, DeLone and McLean (2003) of three quality dimensions have been used as basic substances in measuring the IS success factors on the customer satisfaction of Facebook application which is aligned with other research works such as Landrum and Prybutok (2004), Cheung and Lee (2007), Chuang and Fan, (2011) and Chong, Cates, and Rauniar (2010).

Therefore, Fig 1 shows the conceptual framework of this study that indicates three of DeLone and McLean (2003)'s IS Success factors as independent variables and customer satisfaction as dependent variable which is adapted from Alshibly (2014).
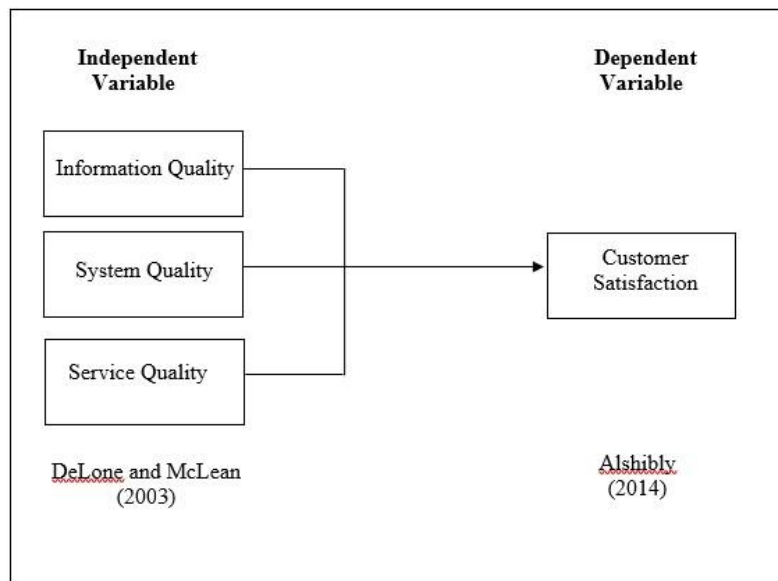
Fig 1: Framework of Relationship between SC IS Success Factors and Customer Satisfaction among SC Users

Based on the above discussion, the following hypotheses were applied in this study:

H1:   There is a relationship between IQ of Facebook applications and customer satisfaction among SC user.

H2:   There is a relationship between SysQ of Facebook applications and customer satisfaction among SC user.

H3:   There is a relationship between SerQ of Facebook applications and customer satisfaction among SC user.

H_4:   There is a significance relationship between IS Success Factors and customer satisfaction among SC user.

RESEARCH METHODOLOGY
Correlational research was undertaken in the current study to examine the relationship between the Information System (IS) success factors of the Facebook platform and customer satisfaction. The instruments to measure the studied variables were adapted from the item that had been used in the past studies. All the items were applied using a 5-point Likert scale, ranging from 1 as "strongly disagree" to 5 as "strongly agree". The items for information success factors were adapted from DeLone and McLean (2003) and the items for customer satisfaction were adapted from Alshibly (2014). The entire questions were validated by the experts in the field of e-commerce and information technology from the Faculty of Business & Management, Universiti Teknologi MARA, Puncak Alam campus, Malaysia. The pilot test was conducted involving 40 respondents to determine the reliability of the instrument. The results of the reliability analysis

indicate that the items are reliable and can be used for the actual study. Each construct in the questionnaires have Cronbach's alpha values of more than
0.7.

This study deals with the users of Malaysian based Facebook brand pages. Therefore, the online questionnaires were created and used through a free service website (Google Form) which allows the respondent to answer the questionnaire by clicking the given link. The questionnaire was provided in bi-languages (English and Malay) to help the respondents in understanding the questions better. The population of the study includes the Facebook application users from three product group pages as listed below.

TABLE 1 : The Group of Product Selected from Facebook Brand Pages

No	Name of Product / Brand	Category of Product	No of Users
1	AWB	Healthcare	45,495
2	CW	Accessories	43,579
3	SFC	Art	42, 820
Total			131, 894

The samples for this study were determined through stratified sampling technique because the individuals in the population of each group are not equal. The number of respondents was referring to Krejeie and Morgan (1970). The link of the questionnaire was distributed to 384 followers of the three selected product group pages as shown in Table 2. Follow-up and reminder has been made through private messages with the respondents and leaves a comment. After the lapse of one month period of data collection, a total of 354 sets of questionnaires were received, yielding a response rate of 92.2%.

TABLE 2 : List of Sample Size

No	Name of Brand Pages	Population (N)	Distributed Questionnaire		Returned Questionnair	
			Percentages	Sample (S)	Sample (S)	Percentages
1	AWB	45,495	35	132	130	33.9
2	CW	43,579	33	127	121	31.5
3	SFC	42, 820	32	125	103	26.8
Total		131,894	100	384	354	92.2

Data were analyzed by using descriptive statistics, factor analysis, correlation analysis and hierarchical regression analysis.

RESULTS AND DISCUSSION
Demographic Profile
Descriptive analysis is meant to examine the respondents' background information that comprises as gender, age, race, higher education, employment status and internet experience usage. With regards to the gender of the respondents, most of the respondents are female (72.3%) and 27.7% are male. Most of them are in range of 21-30 years of age (78%), followed by those who are 31-40 years of age (14.1%). Others are having less than 21 years of age (5.9%) and more than 41 years of age (2%). Concerning to their race, majority of them are; Malay (77.4%), followed by Chinese and Indians (15.5% and 5.6%, respectively). Other races are only 1.1%. With reference to higher qualification, majority of them possess bachelor's degree (45.5%) and 29.4% are diploma holder. Others possess SPM, master degrees, PhD and other qualifications (12.7%, 10.7%, 0.6% and 1.1%, respectively). Regarding the employability status, 74.9% of them are employed and 25.1% are unemployed. Most of the respondents have 6-10 years experiences in Internet usage, followed by those who have used internet for 11-15 years (32.2%), 16-20 years (8.8%), less than 5 years (2%) and 20 years and above (1.1%).

Factor Analysis
Factor analysis was performed to examine the factor structure of the items used in measuring the variables involved in the study. The result shows that the remaining independent variables of the IS success factors were submitted to a principle components analysis with Varimax rotation to test the independent variables for unidimensionality. Only two components extracted; Component 1: IQ and Component 2: SysQ. The dimension of SerQ was excluded from this analysis because the results have high cross loading with each item. The result of the analysis shows that KMO value of 0.883 indicates the appropriateness of factor analysis to be conducted which greater than required .60 and for Bartlett's test of Sphericity is a very significant value of $p<.01$. Originally, fifteen items were used to measure the IS success factors. However, it is only ten items were retained due to high cross-loadings. The retained factors are only IQ and SysQ where it has five items for each factor. Another five items came from SerQ factor which has been deleted due to high cross loading. Meanwhile, the total variance of 64% was produced for customer satisfaction. The extraction retained to form one component with the value more than .06.

Reliability Test
Cronbach's alpha values from a reliability test was used to measure the internal consistency of all constructs. As shown in Table 3, all the items were reliable with the Cronbach's Alpha values of more than 0.8. Moreover, the mean scores for all the items indicate that all the respondents understand the questions well.

TABLE 3 : Results of Reliability Analysis

Variables	Items in scale	Mean	Cronbach alpha
IQ	5	3.6921	.854
SysQ	5	3.9938	.802
Customer Satisfaction	5	3.8362	.860

Correlation Analysis

The associations between variables are tested by using correlation analysis. As shown in Table 4, the association between IQ and customer satisfaction generate the strongest and significant result (r = 0.729; p < .01), followed by the relationship between SysQ and customer satisfaction (r = 0.614; p < .01).

TABLE 4 : Correlation Analysis

No	Variables	1	2	4
1	IQ	1		
2	SysQ	592**	1	
3	Customer Satisfaction	729**	614**	1
** Correlation is significant at the 0.01 level (2-tailed).				

The results show that all the relationships are significance and they are considered moderate correlations. These findings present the potential influence of the independent variables on the dependent variables.

For the hypothesis testing, multiple regression analysis was conducted to examine the relationship between variables. As depicted in Table 5, all hypotheses were supported except for SerQ of IS success factors that has been removed and deleted due to high cross-loading of each item in factor analysis result. The result indicates that 58% of Customer Satisfaction was explained by IS success factors consist of IQ and SysQ. The table also denotes that IQ element was the most significance influence on customer satisfaction among SC users towards Facebook application (β=.563, p=.000) followed by SysQ element with significance influence to customer satisfaction (β=.281, p=.000).

TABLE 5 : Summary of Hypotheses

Hyphotesis	Relationship	B	Sig.	Result
H_1	IQ and Customer Satisfaction	.563	.000	Supported
H_2	SysQ and Customer Satisfaction	.281	.000	Supported
H_3	SerQ and Customer Satisfaction		n/a	
H_4	IS Success Factor and Customer Satisfaction	.582	.000	Supported

CONCLUSION

This study investigates the influence of IS success factors; IQ, SysQ and SerQ of Facebook brand pages in satisfying the customer. However, during factor analysis technique of this study, it indicates that SerQ was excluded from the research scale because the items do not relevant to the variable. According to the finding, it revealed that only IQ and SysQ will be evaluated by SC user to view or purchase the product via Facebook application.

The result also shows that the Facebook's users emphasize more on the quality of the information. IQ describes the system output in term of content, report and dashboards characteristics. It could be measured by understandability, relevance, accuracy, completeness, usability (DeLone & McLean 2003) through the Facebook application. Good IQ could allow for greater understanding of the content, and lead to solve their problem to control the application. In addition, the result was supported by Janda, Trocchia & Gwinner (2002). It was found that IQ is a strong determinant of consumer satisfaction. In addition, Cheung and Lee (2007) stated that the IQ corresponded to the four dimensions which are accuracy, content, format and timeliness. In this case, SC user emphasizes that the IQ is important to the Facebook application.

Meanwhile SysQ measured through the ease to use, system flexibility, system reliability and ease of learning as well as intuitiveness, sophistication, flexibility and response time (DeLone & McLean 2003). SysQ also verified the positive significance relationship to customer satisfaction. Referring to the key dimension of SysQ by Cheung and Lee (2007), the navigation and response time influence the customer satisfaction in online shopping. Furthermore, SysQ is measured based on the information processing system itself and focuses on the outcome of an interaction between user and system. Hence, the SysQ can also be evaluated by SC users' which lead to satisfaction in ensuring their shopping time run smoothly. This is because, in the context of online shopping, the SysQ is largely characterized by the interaction between the customer and the application such as Facebook. The facilities provided by the application could available to use and the function of each button should be able to work, such as text messaging, real-time comment, site navigation, video call and so forth. However, Palmer (2002) highlighted SysQ is referred to a variety other of other interests which consistency, ease of use, clarity of interaction, ease of reading, the arrangement of information, speed and layout in web design. Customer will be satisfied whenever the system working properly and meet their interest.

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