

THE INFLUENCE OF ELECTRONIC WORD-OF-MOUTH OVER FACEBOOK ON CONSUMER PURCHASE

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ABSTRACT

The purpose of this paper is to study the impact of electronic word-of-mouth communication over social networking sites on consumer purchase decisions. More precisely the study investigates the flow of communication on product recommendations from Facebook friends and how they are effective in influencing a person to initiate purchase related action.

An exploratory survey research was conducted after due identification of variables from various research works in the areas of eWOM over social networking sites. A study population was identified and a convenience sample was drawn for administering the structured questionnaire.

The study established a clear connection between seeking product related recommendation over Facebook and purchasing products or services based on the Facebook friends' recommendations. The results also proved that there is a strong relationship between perceived use and perceived ease of use of Facebook in seeking product recommendations over Facebook. This study emphasizes the role of Facebook as a medium of communication where people share freely product related inputs which otherwise does not take place in the real life face-to-face circumstances.

Keywords: Social Networking sites, Facebook, eWOM, Seeking Product recommendations on FB.

1. INTRODUCTION

Presence in Social networking sites (SNS) has nowadays become the online identity of many. These sites offer a host of services besides connecting people. SNSs bridge the physical divide through chat rooms, discussion forums, newsgroups, review sites, blogs and so on. There are many types of social networking sites depending on the usage and the community which uses it. Popular among them are Facebook, LinkedIn, Twitter, MySpace, Google+, YouTube, and so many alike.

Social networking sites offer unlimited tools online for exchanging information across the network faster than the traditional social gathering. Besides sharing information about one's self to others, Individuals tend to share updates on one's experiences, recent activities appreciated things and lifestyle over SNS in which they are members (Dunne, et al., 2010). Since these sites support peer communications that help users to communicate in an easy and faster means, consumers utilize these sites to exchange product related queries and recommendations from their contacts in order to ascertain their choice of brands or stores.

Facebook has emerged as the market leader in the SNS category, the engagement on Facebook being the highest among any category. Also, Facebook users spent 3.8 hrs online on an average in a study in July 2012. The increase in the use of virtual media usurps a newer medium of communication among its users namely e-WOM. As traditional media are sidelined for want of attention, e-WOM spreads more rapidly and wider. eWOM through SNS is much more effective in influencing consumers' purchase intentions than traditional advertising done through these sites (Wallace, et al., 2009). The power of e-WOM on product related information seeking and sharing is being studied in order to gain an insight into what factors motivate SNS users especially Facebook users to indulge in e-WOM. This study was an inspiration from the Master's thesis titled "The Influence of Facebook Friends on Consumers' Purchase Decisions" by Mohammed Ali ALghamdi, submitted to the University of Otago, Dunedin, New Zealand on March 2012. The research model used in the research was modified slightly to this present study.

1.1. Importance of the study

SNS platforms provide an easy link to their referrals to connect and engage a two-way communication on product related discussions. In a September 2011 survey from Nielsen, 92% of internet users worldwide said they completely or somewhat trusted recommendations from people they knew, and 70% said the same of consumer opinions posted online (emarketer, Inc , 2012). Even though it is confirmed that people connected on SNS have a strong influence on each other (Diffley, et al., 2011), the influence upon one's preference for brands based on one's recommendations need to be studied in depth.

2. LITERATURE REVIEW

2.1. WOM (Word of Mouth)

Usually just two or three people are involved in the intimate activity of brand conversations (Miroslav, Ivan & Miroslav, 2008). Electronic word-of-Mouth (eWOM): Statements (positive or negative) made by customers (potential, actual or former) about a company or product, when made available to many people over the internet e-WOM takes place (Hennig-Thurau., 2003). Consumers who had many contacts in their networks were more likely to be influenced by others and follow their advice about products (Smith, 2007).

e-WOM over Social Networking sites: Internet social connection was found to have a positive relationship with online opinion seeking. Senecal & Nantel J (2004) reports that, Product recommendations online has a huge influence on the receivers' product selections. e-WOM over Facebook: According to Eleni & Dimitrios (2010) Facebook can be used by managers for advertising their brands by e-WOM. Consumers who are actively recommending products and services on social media are those same people who are most active on brand pages on Facebook and on Twitter, commenting, "liking" or re-tweeting. (e marketer, Inc , 2012).

3. RESEARCH MODEL

The conceptual framework of the research identifies the possible factors that influence consumers' use of Facebook as an information source to seek product recommendations from Facebook friends. ALgamdi (2012) has adopted two factors namely Perceived usefulness and Perceived ease of use from the Technology Acceptance model. **Perceived usefulness (PU)** - was defined by Fred Davis (1989) as "the degree to which a person believes that using a particular system would enhance his or her job performance". **Perceived ease-of-use (PEU)** is defined as "the degree to which a person believes that using a particular system would be free from effort" (Davis 1989) (Wikipedia). The other factors identified by ALgamdi (2012) are, **Perceived Enjoyment**: Davis, Bagozzi, & Warshaw, (1992) define perceived Enjoyment as "the extent to which the activity of using a computer is to be perceived enjoyable, apart from any performance consequences that may be anticipated." **Perceived Experience**: It is the level of experience of using Facebook. According to Cha (2009) users' familiarity with a particular medium, based on their frequency of use, is positively associated with how favorably users feel toward that medium. **Perceived Trust in recommendations**: Perceived trust can be defined as" a feeling of security and willingness to depend on someone or accepted (Bearden & Etzel, 1982). **Perceived ability of the recommendations on FB**: A person's ability can refer to his/her knowledge, capability or qualifications regarding a particular subject. Ability can be defined as "skills or competencies that enable an individual to have influence in a certain area" (cited in ALghamdi 2012).

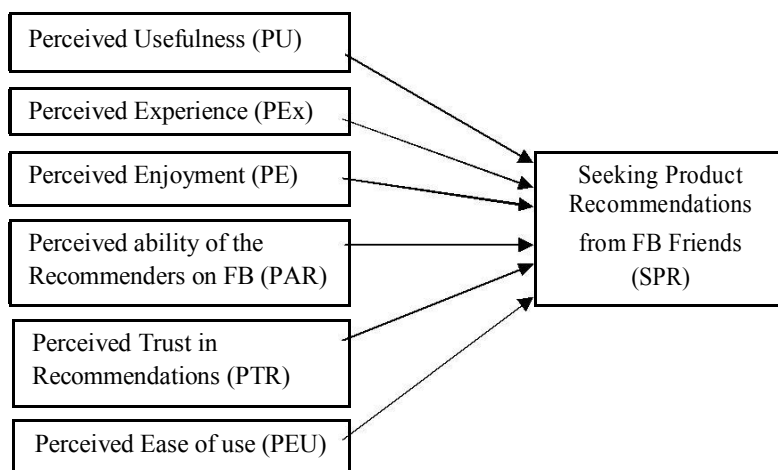


Figure 1. Proposed Research Model

4. RESEARCH METHODOLOGY

4.1. Research Conceptual Framework & Hypotheses Development

The research conceptual framework explains the likely relationship between factors that influence the consumer's use of Facebook as a source of information to seek product related recommendations from friends in Facebook. From the above factors the following suppositions were made to check the relationship existing among them.

H1- Perceived usefulness of Product recommendations from Facebook friends and seeking

product recommendations from FB friends are positively associated.

H2- Perceived ease of use of Product recommendations from Facebook friends and seeking product recommendations from FB friends are positively associated.

H3- Perceived enjoyment of Product recommendations from Facebook friends and seeking product recommendations from FB friends are positively associated.

H4- Perceived experience with Facebook and seeking product recommendations from Facebook friends are positively associated.

H5- Perceived trust in Product recommendations from Facebook friends and seeking product recommendations from FB friends are positively associated.

H6- Perceived ability of the recommenders on Facebook and seeking product recommendations from FB friends are positively correlated.

4.2. Data Collection: In order to collect the relevant information on the measures above, a survey research was performed among the respondents. Information Technology product adoption very rapidly spread among the IT and ITES personnel and hence they are quick to master the use of the same. Since they work in a connected environment where they communicate more frequently through the electronic media especially the Internet they were chosen as respondents for this study. A questionnaire was developed to collect information regarding their presence in Social networking sites especially Facebook and how they use it to communicate with their friends. Demographic information like age, gender, qualification and present occupation were asked besides the usage of SNS especially years of membership in Facebook, dominant activity on FB, number of contacts in FB etc. The questions were adopted with slight modifications from the respective sources as in Table 1.

4.3. **Sampling:** The survey questionnaire was circulated among a conveniently selected sample of IT professionals working in and around Chennai, a bursting Metropolitan city in India. A sample of 300 respondents had taken part in this survey out of which 212 questionnaires were returned to the researcher. Since this research mainly focused on the usage of Facebook friends' recommendations for purchase decisions only those responses which had mentioned such an activity were included for analysis. So out of 212 questionnaires 200 were included and 12 of them were removed.

4.4. **Demographic data:** Among the respondents 70 % were men and 30% were women. Around 34% of them possess a master's degree and the rest are undergraduates. More than 70 % of them are working for private IT firms which supplies IT products to overseas customers. Around 20 % of them are in the age group of 18-22 and around 64 % of the respondents are in the age group of 23-28. Invariably every respondent had more than one membership in Social networking sites, especially Facebook, Twitter and Google +.

4.5. Measures

The Measurement scale for the research model factors were adopted from the sources mentioned in Table 1. All these measurement items use a seven-point Likert Scale, rating from 1 (strongly disagree) to 7 (strongly agree).

Table:1. Measurement scale and their sources

Name	Value	Adopted from
PU	PU1 PU2 PU3 Seeking product recommendations on Facebook is useful to me. Seeking product recommendations on Facebook makes me more efficient. Seeking product recommendations on Facebook makes my life easier.	Cha(2009); Davis (1989);ALghamdi (2012)
PEU	PEU1 PEU2 PEU3 Seeking product recommendations on Facebook is easy. Learning how to seek product recommendation on Facebook is easy. It is easy to get a product recommendation on Facebook.	Cha(2009); Davis, Bagozzi and Warshaw (1989);ALghamdi(2012)
PE	PE1 PE2 PE3 PE4 Seeking product recommendation on Facebook is enjoyable. The actual process of using Facebook to seek product recommendation is pleasant. Seeking product recommendation on Facebook is fun. Seeking product recommendations on Facebook is interesting.	Cha(2009); Davis, Bagozzi and Warshaw (1992);ALghamdi(2012)
PEx	PEx Amount of daily time spent on Facebook	Ellison et al (2007); ALghamdi(2012)
PTR	PTR1 PTR2 PTR3 I think that product recommendations from my online friends on Facebook are credible. I trust product recommendations from my online friends on Facebook. I believe that product recommendations from my online friends on Facebook are trustworthy.	Hsiao et al (2010); ALghamdi(2012)
PAR	PAR1 PAR2 PAR3 I think my online friends on Facebook are knowledgeable about the products. I think my online friends are competent when discussing products on Facebook. I think my online friends are well qualified when discussing products on Facebook.	Hsiao et al (2010); ALghamdi(2012)
SPR	SPR I often use Facebook to seek recommendations from my online friends regarding product(s) that I plan to purchase.	ALghamdi (2012)

5. DATA ANALYSIS AND RESULTS

The descriptive statistics of this sample were calculated including mean, maximum, minimum, sum, and standard deviation. After data entry into SPSS ver. 18, the reliability and the normality of the adopted measurement scales were checked using Cronbach's Alpha reliability score and one sample Kolmogorov-Smirnov test for normality. In order to test the research hypotheses, parametric analysis methods were used. Pearson correlation was used to examine the relationships between the independent variables and dependent variables. Then multiple regression analysis was performed to determine the strongest predictive relationships in the research conceptual framework.

5.3. Measurement Model

The research hypotheses were tested among those who had bought products based on recommendations from Facebook friends which is 94% (n=200). In order to compute the scores of the scaled data simple averaging method was used (Algamdi, 2012). In order to check the reliability of the scaled items of each construct Cronbach's Alpha was used. The results of the Cronbach's alpha showed that all the scales were reliable and valid for measuring the constructs. The alpha scores of the individual scales were high (above 0.7) and showed strong internal consistency among the items. Table 2 lists the alpha scores of each construct.

Table 2. Cronbach's Alpha scores of the Construct

Name of the Construct	Scale Items	Cronbach's Alpha
Perceived usefulness	PU1 (. 927), PU2 (. 924), PU3 (. 925)	0.925
Perceived ease of use	PEU1 (. 925), PEU2 (. 925), PEU3 (. 925)	0.925
Perceived Enjoyment	PE1(.924),PE2(.924),PE3(.926),PE4(.925)	0.925
Perceived Experience	PE _x	0.932
Perceived Trust of Recommendations	PTR1 (. 924), PTR2 (. 925), PTR3. (924)	0.924
Perceived ability of the recommendations on Facebook	PAR1 (. 925), PAR2 (. 924), PAR3 (. 925)	0.925
Seeking product recommendations on Facebook	SPR	0.927

5.3.1. Normality of the variables

A one sample Kolmogorov-Smirnov test was used to check whether the data are normally distributed for the variables measured. Table 3 below lists the variables and the Asymp. Sig (2-tailed) values of the one sample Kolmogorov-Smirnov test results. For normality the value should be more than 0.05 and also the Histogram of the variables should represent a reasonable normal distribution fit to the data.

Table 3. Normality test for the variables

Variables	Type of variable	One sample Kolmogorov-Smirnov test Asymp. Sig (2-tailed)
Perceived Usefulness	Independent variable	0.227
Perceived Ease of Use	Independent variable	0.031
Perceived Enjoyment	Independent variable	0.043
Perceived Experience	Independent	0.000

	variable	
Perceived Ability of the Recommenders on Facebook	Independent variable	0.052
Perceived Trust in Recommendations	Dependent variable	0.209
Seeking Product recommendations on Facebook	Dependent variable	0.000

In the above table, the Asymp. Sig (2-tailed) values indicated that the variables Perceived usefulness, Perceived trust in Recommendations, and Perceived ability of the recommenders on the Facebook were normally distributed while for the other variables (Perceived Ease of Use, Perceived Enjoyment, Perceived Experience), Asymp. Sig (2-tailed) values were below 0.05. Whereas the Histogram of all the above variables was normally distributed. It appears that all the variables are acceptably normally distributed. Hence parametric analysis tools were employed to test the research analysis.

5.3.2. Testing the research hypotheses

In order to test the research hypotheses H1 to H6, Pearson Correlations were calculated to determine the relationships between the independent variables and the dependent variable in the research model. Table 4 summarizes the correlations of the research model.

Table 4. The Pearson Correlation analysis results for the first relationship

		SPR	PU	PEU	PE	PAR	PTR	PE _x
SPR	Pearson Correlation	1	.486 ^{**}	.453 ^{**}	.437 ^{**}	.429 ^{**}	.421 ^{**}	-.104
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.155
	N	187	185	187	186	186	186	187

^{**}. Correlation is significant at the 0.01 level (2-tailed).

The results showed that all the independent variables were significantly positively correlated with the dependent variable except for the last independent variable ‘Perceived Experience’ which showed no significant correlation. Pearson Correlation analysis has helped to understand the degree of association between the variables in order to evaluate the research hypotheses. To know how many and which of those independent variables have the most

influence on the dependent variable multiple regression analysis was performed to test the relationship amongst the predictor (independent) variables and the response (dependent) variable. The multiple regression analysis was performed to predict the response variable “seeking product recommendations from Facebook friends’ from the predictor variables: perceived usefulness, perceived ease of use, perceived trust on recommendations, perceived experience, perceived ability of the recommenders in Facebook, and perceived enjoyment. A ‘stepwise’ regression method was used to compare the contributions of the predictor variables. The p-value for entry of the predictor variable into the model equation was set at 0.05. The results of the multiple regression analysis indicated that perceived usefulness of product recommendations from Facebook friends and perceived Ease of Use have strong

influence on seeking product recommendations over Facebook. The regression was statistically significant ($F_{2, 183} = 32.370$, $p < 0.001$). The strongest predictive relationship was given by Seeking Product Recommendations on Facebook = $0.771 + 0.451 * \text{Perceived Usefulness} + 0.242 * \text{Perceived Ease of Use}$. The predictive power was moderate ($R^2 = 0.263$). The other variables were excluded from the model.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.491 ^a	.241	.237	1.283
2	.513 ^b	.263	.255	1.267
a. Predictors: (Constant), PU				
b. Predictors: (Constant), PU, PEU				

6. DISCUSSION AND CONCLUSION

From the main research question on ‘sources used to obtain recommendations before product purchases’ showed that 42.5% (n=191) of the respondents have used Facebook as a source of information to seek product recommendations from Facebook friends before they purchased products. ‘Other friends or family members’ stand the second source for product recommendations (18.5%). The company’s website (19%) as a source of information for product related information or reliance on TV (4.5%) or Newspaper or magazine (1.5%) for product related inputs are not popular among the respondents as is evident from the survey. The results of the present study suggest that product recommendations obtained from Facebook friends did reasonably influence purchase decisions among the respondents. Almost 44% (n=187) among the respondents who have purchased products, have obtained product recommendations from Facebook friends shows a strong dependence on friends’ approval for purchase related behavior. From the multiple regression analysis performed on the association of seeking product recommendations from Facebook friends and other predictor variables it was established that there exists a strong relationship between seeking product recommendations from Facebook friends and Perceived usefulness & Perceived Ease of use. The result reiterates the role of Facebook friends in influencing product related search behavior. Consumers may trust the recommenders especially those whom they trust the most and accept their recommendations.

7. LIMITATIONS OF THE STUDY

The study has made some prior assumptions on the selection of the sample: The usage of Social Networking sites among the age group of 20 -30 is presumed to be high compared to other age group and so the study population identified was limited to that group. Since the research was based on the Technology acceptance model (TAM) variables, the sampling units were expected to be familiar with the usage of Internet based products. The sampling plan thus opted for samples who are working in IT enabled service companies which predominantly employ personnel of the above age group.

The research has a generic purpose of investigating the role of Popular Social networking

media in influencing purchase behavior, but could not draw much conclusion from the influence of other social media other than Facebook. This may be due to the attraction that FB has on the study group which spends more time on the various features of Facebook over other SNMs. Also most of the other SNMs have limited and more specific user features which may or may not attract people to share information.

8. IMPLICATIONS FOR RESEARCH

The reliance on referrals from friends on the internet is more prevalent in developed countries because of technological advancement but developing countries show a rapid growth in the adoption of the internet especially in the mobile platform indicates the rise of new avenues for online communication. Once these communication links become wider and stronger people tend to share more of their mind hitherto not willing to speak much in face-to-face conversations. Voicing for a public cause, commenting on others' views, following celebrities online, accessing information online, indulging in online shopping, chatting with friends, instant feedback on friends' comments are some of the fallout of social networking sites' power of connectivity. Sharing information on brands, products, services, promotional offers and past purchases among friends has become essential because SNS users need instant approval for their selection and reduce their dissonance quickly. Also they wanted to be updated on the latest trends to avoid being outcast as old-timers. The need for a longitudinal study across the Social networking media users on various factors that may influence to rely on the recommendations of friends on product related purchases is highly pronounced in order to understand the spread of viral communication and formation of opinion leaders. This will provide a better sketch of the resultant communication web of eWOM taking place in the SNM platform.

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