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Journal of Internet Banking and Commerce, April 2012, vol. 17, no. 1
(http://www.arraydev.com/commerce/jibc/)

VERIFICATION OF SOCIAL IMPACT THEORY CLAIMS IN SOCIAL MEDIA CONTEXT

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Abstract

Social media explosion changed the way of communication. It affected the ways companies used to interact with their consumers. Most important it changed the way consumers used to think. Present study attempts to verify the claims and assumptions of social impact theory in the social media environment. Based on social impact theory

present study examines the impact of number of users (NUs) on the perceived credibility of user generated content (PCUGC). Furthermore, it examines the impact of PCUGC on the consumer attitude towards the product related content embedded in UGC (ATUGC). Empirical evidence was collected from a random sample of 459 students. Results substantiate the claims and assumptions of the social impact theory in the social media context. Results show positive impact of NUs on PCUGC. Similarly, they show positive relationship between PCUGC and ATUGC.

Keywords: **Social Impact Theory, Social Media, UGC, Credibility, Attitude**

INTRODUCTION

Social media has changed the landscape of communication. It continues to be a "game-changer" for communication. Social media is a broad umbrella of new online communication channels. It enabled the people all over the world to interact and share product and brand related information with each other.

Social media includes online networks (e.g., Facebook, MySpace, and LinkedIn), wikis (e.g., Wikipedia), multimedia sharing sites (e.g., YouTube and Flickr), bookmarking sites (e.g., Del.icio.us and Digg), virtual worlds (e.g., Second Life), and rating sites (e.g. Yelp) (Edwards, 2011). Social media has become the core of the marketing communication as some business gurus say that if business firms do not participate in social media they are not part of cyberspace anymore. Social media enables businesses to contact the end users directly and timely relatively at lower cost than traditional media (Kaplan and Haenlein, 2010).

The distinctive characteristic of social media is that it is a personalized user generated media. Users exercise greater control over its use and content generation (Dickey and Lewis, 2011). Consumers are no more willing to listen what business organizations want them to listen rather they want business organizations to listen what they say. This attitudinal and behavioral transition in consumers is the impact of social media emergence and it is a big challenge for business firms to deal with it (Kietzmann et al., 2011). This situation signals that business firms should identify those factors of social media that affect the consumer attitude towards the product related information embedded in social media content. This may enable businesses to develop the affective social media promotional strategies.

Since the inception of social media, various studies have been conducted to examine its different aspects particularly those that drive the individuals to participate in social media. For instance, Daugherty, Eastin, and Bright (2008) attempted to explore the factors motivating consumers to create social media content. Cheong and Morrison (2008) examined the consumers opinions about the recommendations and information implanted in user-generated content and producer generated content. Sun et al. (2009) studied the factors that support or inhibit users' knowledge sharing intentions in virtual

communities. Zeng, Huang, and Dou (2009) investigated the possible mechanisms by online community members may respond positively to community advertising. Using experiment, Cui, Wang and Xu (2010) studied the influence of social presence on consumers' perceptions of the interactivity of web sites. Chi (2011) explored the influence of user motivation to engage in online social networking and their response to social media marketing. However, examination of the claims and assumptions of social impact theory (Latane, 1981) in social media context is unaddressed. This study intends to fill this gap in the literature on social media.

Social impact theory states, "When other people are the source of impact and the individual is the target; impact should be a multiplicative function of the strength, immediacy, and number of other people". It assumes as the number of people increases the impact on the target individual's attitude and behavior augments (Latane, 1981). On social media network sites (SNS) (e.g. Facebook) users often share information about certain products, brands, and events. As the number of users who share their experiences and information on the same product, brand or event increases the impact on target user who is looking for product information and recommendations on social media may increase. This assumption justifies the application of social impact theory in understanding the impact of social media on consumer attitude.

This study aims to examine the impact of number of users (NUs) on the perceived credibility of user generated content (PCUGC) related to products. Furthermore, it intends to test the impact of PCUGC on consumer attitude towards the product related information embedded in user-generated content (ATUGC). Similarly, it aims to examine the impact of ATUGC on consumers' purchase intentions. This study focuses on social media networking sites (SNS) exclusively.

The present study makes some important incremental contributions in social media theory and practice. It verifies the social impact theory (Latane, 1981) claims and assumptions in social media context. It also presents the thinking of the young consumers from an Asian and developing country about the product related content different users create on social media networking sites.

UNDERLYING THEORIES AND CONCEPTUAL MODEL

Attitude and purchase intentions

Before buying a product consumers consult the different sources of information particularly in case of high involvement products (Cheong and Morrison, 2008). Today, an emerging source of product related information is social media especially social media networking sites (SNS) such as Facebook, Linkedin etc., where an individual interact with other individuals and benefit from their experiences with the target product. This section of the present study theorizes the impact of numbers of users (NUs) of SNS on the perceived creditability of user-generated content related to the products (PCUGC) and the impact of PCUGC on consumer attitude towards the user-generated content related to the products (ATUGC). It also assumes the impact of ATUGC on consumer purchase intentions (PI) of the products recommended by other users in the form of UGC.

Understanding the consumer attitude within the domain of social media is important "as the attitude construct continues to be a major focus of theory and research in the social

and behavioral sciences" (Ajzen, 2001). Attitude towards an object is "a psychological tendency that an individual expresses by evaluating a particular entity with some degree of favor or disfavor" (Eagly and Chaiken, 1998). It is an individual's evaluative judgments of an object (Crites, Fabrigar and Petty, 1994). Fishbein and Ajzen (1975) define the attitude as "an individual's positive or negative feelings about performing the target behavior." Similarly, understanding purchase intentions is imperative as various theories of consumer buying behavior state that understanding consumer purchase intentions assists in predicting their purchase behavior (Bagozzi, 1983; Engel, Blackwell and Kollat, 1978; Fishbein and Ajzen, 1975; Warshaw, 1980).

Present study advances that number of users (NUs) on SNS affects the credibility of product related information embedded in the UGC (PCUGC). PCUGC in response affects the consumer attitude towards the product related information embedded in UGC (ATUGC). Social impact theory (Latane, 1981) explains the effect of NUs on PCUGC. Social media theory states, "When other people are the source of impact and the individual is the target; impact should be a multiplicative function of the strength, immediacy, and number of other people." It further assumes that as the number of social network members increases, impact on the target individual increases (Latane, 1981). However, NUs construct in this study bases on the assumption that as the number of social network members increases, impact on the target individual increases (Latane (1981) or more the number of users who create the product related content on SNS greater the impact on the target user/consumer who is seeking product recommendation on SNS. This relationship suggests that as PCUGC strengthens the consumption and creation of such content increases, while being mediated by attitude (Daugherty et al., 2008). Figure 1 shows the interactions among the constructs of the present study.

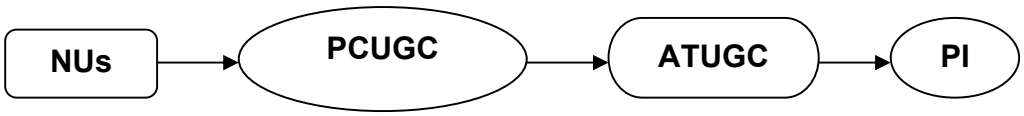

Figure 1 Proposed Model

Perceived Credibility of UGC

Understanding the factors that affect the perceived credibility of user-generated content (PCUGC) is important because of its direct impact on consumer ATUGC. Customers' search other consumers' brand related views and comments to reduce the risks involved in purchasing a product or brand (Goldsmith and Horowitz, 2006). Consumers consider people who generate content on social media networks sites as opinion leaders even if they do not know them (Cheong and Morrison, 2008). Perceived product/brand related information credibility eventually lead to the message effectiveness and the favorable attitude towards the brand (Erdogan, 1999; Friedman and Friedman, 1979; Ohanian, 1990). Credibility is a complex and multidimensional construct. The medium through which information is disseminated influences the information credibility. Expertise, knowledge, and trustworthiness make the sources of information credible. Web users rate the same information on the web as more credible than on traditional media channels (Wathen and Burkell, 2002). Tseng and Fogg (1999) defined credibility as "believability."

This section of the present study conceptualizes the impact of number of SNS users on the perceived credibility of the user-generated content related to the product. The term 'user-generated content' (UGC) is used for the content produced and uploaded by consumers rather than companies" (Muntinga, Moorman, and Smit, 2011). UGC is the social media content. Public generates it, not the professionals and is disseminated on the internet. UGC includes "online content as digital video, blogging, podcasting, mobile phone photography, wikis, and user-forum posts, etc.," (Daugherty et al., 2008). Young consumers find UGC sources (e.g. bloggers, video uploaders, forum posters etc.,) more credible than companies and business professionals, despite being personally unknown or unrelated to the user (Jonas, 2010).

Other consumers' brand related information appears more significant than the brand related information provided by the professional advertisers because consumers consider the other consumers' information more reliable. UGC becomes more important as it bases on other consumers' personal experiences with a product or brand (Cheong, and Morrison, 2008). UGC becomes credible when multiple users work on this content together (Wunsch-Vincent, 2007). Supporting sources of the same information make the information produced on social media credible (O'Reilly and Marx, 2011).

Present study argues that if more users of the social media produce the same views in the form of blogs, posts, scraps, reviews, comments etc., about a product it makes product related information credible. This postulation is in line with the assumption of social impact theory (Latane, 1981) which proposes as the number of people increases in a social group influence on target individual's attitude and behavior increases. Consumers rely on multiple sources to determine the credibility of information produced by online communities and bloggers. In addition, consumers rely on the ratings of others, the number of posts, and the usefulness of the information presented (O'Reilly and Marx, 2011). User-generated information in the form of ratings and recommendations from others helps a consumer to assess the credibility of UGC (Flanagin et al., 2011). Consumers' rely on online groups or communities to assess the credibility of product related information (Cheung, Lee, and Rabjohn, 2008; Metzger, Flanagin, and Medders 2010).

Social Impact Theory and Social Media

Internet enabled people all over the world irrespective of the geographic and time limitations to gather in different groups of interest and affiliation. As many of these group affiliations bases upon consumption activities and ecommerce so these e-tribes are of substantial importance to marketing and business strategists. Marketers who rigorously understand them and the opportunities they present will be able to position themselves to benefit from fundamental changes that are occurring in the ways people decide on which products and services to consume, and how they actually consume them.

Due to interactions based on information, knowledge exchange, and power from marketers to consumers, consumer groups can make successful demands on marketers that individual consumer cannot (Kozinets, 1999). Information is an important motivation for people to consume brand related social media content.

People join online social networks to search for technical specification of their desired products and brands, check out the new collections in different product categories, read other persons' product, or brand experiences and so on. People read product related reviews or threads on social media to make the well-considered buying decisions (Muntinga, Moorman, and Smit, 2011).

Present study advances that when numbers of users generate this social media content it becomes credible. In other words, brand related information becomes more credible when multiple users of the social media networks articulate the same opinions about it. Social media theory states, "when other people are the source of impact and the individual is the target; impact should be a multiplicative function of the strength, immediacy, and number of other people". It assumes as the number of social network members increases impact on the target individual increases (Latane, 1981). Social media users (e.g. members of Facebook) often share their product or brand related experiences and information in the form of posts, comments, and ratings. Individuals are influenced by the actions of others, entertained by their performance and sometimes persuaded by their arguments (Latane, 1981).

Social impact means any of the great variety of changes in psychological states and subjective feelings, motives and emotions, cognitions and beliefs, values and behavior, that occur in an individual, human, or animal as a result of the real, implied, or imagined presence of action of other individuals (Latane, 1981). Present study extends the application of social impact theory to social media. Because some previous studies such as Nowak, Szamrej and Latane (1990) suggested that a simple model of individual influence, operating in accordance with some general principles of social impact, can, if extended to reflect how individuals influence and are influenced by each other over time, lead to plausible predictions of public opinion. Williams and Williams (1989) postulated that social impact varies depending on the underlying purpose of compliance.

Hypotheses

H1. Perceived credibility of user-generated content shared on SNS depends on number of users who generate it.

H2. Perceived credibility of user-generated content shared on SNS affects the consumers' attitude towards the UGC positively.

H3. Positive the attitude towards UGC, positive the purchase intentions of the products embedded in the UGC.

MATERIALS AND METHODS

Data was collected from University Students of Islamabad through survey. A self-administered questionnaire was used for data collection. Two surveys were conducted at Iqra University Islamabad Campus to collect the data from randomly chosen students. Survey one was the pilot study whereas survey two was the main study. In survey one was data was collected from students (n = 205) to examine the validity and reliability of the adapted scales (see detail in PCA section). In survey two data was collected from students (n = 254). Total data (n = 459) from both surveys was used to conduct the CFA and test the proposed model.

The data of survey one was included in the total data to maintain the consistency in the data collected from random sample of students.

Total 550 questionnaires were distributed among the randomly chosen students and the response rate was 83%. The age ranges of the sample students were as follows. Under 20 =18.1%, 20-29=52.9%, 30-39=25.3%, and 39 plus=3.7%. 65.1% students were male and 34.9% female. 22.2%, 40.8%, and 37% sample students were enrolled in undergraduate degree programs, graduate degree programs, and postgraduate degree programs respectively.

Measurement

To measure the constructs of the present study items were adapted from previous studies. To measure the NUs, 4- items were adapted from Bailey (2005), 1-items from Nurmi, Salmela-Aro and Haavisto (1995), 1-item from Jones, Briggs, and Smith (1986) and 2-item from Cheek and Buss (1982). To measure the PCUGC, 6-items were adapted from Chi (2011). To measure ATUGC, 2-items were adapted from Liu, Liao, and Pratt (2009) and 4-items were adapted from Lai and Chang (2011). To measure the PI, 2-items were adapted from Liu et al. (2009). Appendix 1 shows the summary of adapted items. Responses were measured on 7-Point Likert scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree).

Principle Component Analysis

Principle component analysis (PCA) with Varimax rotation was conducted to screen the items. Data from students (n = 205) was used to conduct the PCA. PCA was run on 7-items of NUs, 6-items of PCUGC and 6-items of ATUGC. After three iterations, PCA produced one factor of NUs consisting of 3-items. Whereas 4 invalid items of NUs were deleted. The PCA values of NUs are eigen value= 1.799, percentage of variance= 59.982, KMO= .657, Bartlett's test of sphericity = .000 ($p < .05$) and Cronbach's alpha= .666.

Table 1 shows the factor loadings of NUs. At the first iteration, PCA produced two components of PCUGC; however, in third iteration it was reduced to one component to meet the objective of the study. After 4 iterations 3-items were chosen to measure PCUGC whereas 3 invalid items were deleted. The PCA values of PCUGC are eigen value= 1.907, percentage of variance= 63.555, KMO= .738, Bartlett's test of sphericity = .000 ($p < .05$) and Cronbach's alpha= .707.

Table 1 shows the factor loadings of PCUGC. PCA produced only one factor of ATUGC. After 2 iterations 4-items were retained and 2 invalid items were deleted. The PCA values of ATUGC are eigen value= 2.338, percentage of variance= 58.444, KMO= .745, Bartlett's test of sphericity = .000 ($p < .05$) and Cronbach's alpha= .718.

Table 1 shows the factor loadings of ATUGC. Due to least number items (i.e. 2) only reliability of PI was examined. Guttman Split-Half Coefficient was used to test the reliability of PI. Guttman Split-Half Coefficient of was .705.

Table 1. Screened Measurement scales of constructs of the study

Constructs	Items	Factor loadings	Reliability
NUs	NU1. If I have a little experience with a product, I often read that product related posts and comments by multiple users on SNS.	.789	.666
	NU2. I frequently gather information from multiple users on SNS about a product before I buy	.790	
	NU3. I trust the product related user generated information when multiple users rate it positively	.743	
PCUGC	IC4. Product related content shared on SNS by users is accurate.	.706	.707
	IC5. Product related content shared on SNS by users is truthful.	.814	
	IC6. Product related content shared on SNS by users is honest.	.864	
ATUGC	ATU2. SNS are a useful sources of l product related information	.734	.718
	ATU3. SNS enable me to get reliable product related information	.796	
	ATU4. SNS enable me to get rich product related information	.747	
	ATU6. SNS enable me to know the views of multiple users on a specific product	.779	
PI	PI1. I intend to consider the products users share on SNS in my future purchases		.705
	PI2. I intend to make my future purchase decisions based on the product related information users share on SNS		

Confirmatory Factor Analysis

A confirmatory factor analysis was conducted to examine the goodness-fit of the measurement models for NUS, PCUGC, and ATUGC. Amos version 16 was used for the structural modeling analysis. Traditional cut-off criteria of model fit (see Bentler,1983:1990; Browne and Cudeck, 1993; Marsh and Grayson, 1995; McDonald and Ho, 2002; Schumacker and Lomax, 1996; Thompson, 2000) results indicated that the measurement models of NUS, PCUGC and ATUGC fit the sample satisfactorily(see Table 2).

Three items were used to measure the NUS. Three items were used to PCUGC. Four items were used to measure the ATUGC. Whereas CFA was not applied on two items of PI. All the items were measured on 7-point likert scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree).

Table2 Measurement Model Fit of Constructs of the Study

Constructs/Indices	Chi	d.f.	Chi/d.f.	GFI	IFI	CFI	NFI	TLI	RMSEA
NUs	6.36	2	3.18	.99	.96	.98	.99	.97	.064
PCUGC	6.03	3	2.1	.98	.97	.99	.97	.99	.053
ATUGC	7.62	2	3.81	.99	.97	.98	.99	.99	.067
Traditional Cut off Criteria			≤5	≥0.90	≥0.90	≥0.90	≥0.90	≥0.90	≤0.08

RESULTS

Model Fit

The model provides the bad fit to the data with a Chi-square ($\chi 2$) = 239.96, d.f. =51, p<.05. This is due to larger sample size (n=459). The Larger sample size results into the significant $\chi 2$ statistics (Anderson and Gerbing, 1988).However, $\chi 2$/d.f. = 4.71 is satisfactory. $\chi 2$/d.f. less than 5 is considered adequate to accept the model (Thomson, MacInnis, and Park, 2005). Six indices, Goodness of Fit Index (GFI),Incremental Fit Index (IFI), Comparative Fit Index (CFI), Normed Fit Index (NFI), Tucker-Lewis Index (TLI), and Root Mean Square Error of Approximation (RMSEA) were used to examine the model fit. The model fit on these indices was examined by using traditional cut-off criteria of model fit (see Bentler, 1983:1990; Browne and Cudeck, 1993; Marsh and Grayson, 1995; McDonald and Ho, 2002; Schumacker and Lomax, 1996; Thompson, 2000). Traditional cut-off criteria of model fit revealed the satisfactory results to accept the model (see Table 3). Figure 2 shows the structural model.

Table 3 Structural Model Fit

	Chi	d.f.	Chi/d.f.	GFI	IFI	CFI	NFI	TLI	RMSEA
Model	239.96	51	4.71	.93	.92	.92	.90	.90	.071
Traditional Cut off Criteria			≤5	≥0.90	≥0.90	≥0.90	≥0.90	≥0.90	≤0.08

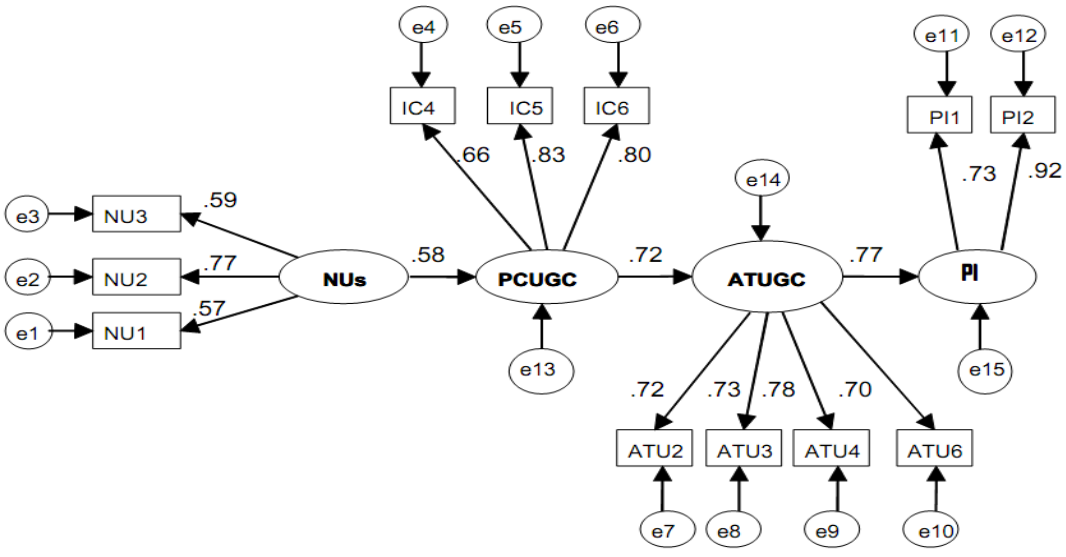

Figure 2 Structural Model

Hypotheses Testing

The results of the structural model revealed that NUs positively affects the PCUGC that in turn affects the consumer ATUGC positively (see Table 4 and Figure 2). Similarly, consumer ATUGC affects the PI positively. NUs→PCUGC with β=0.58, p<.05 supports the hypothesis (H1) that perceived credibility of user-generated content shared on SNS depends on number of users who generate it. PCUGC→ATUGC with β=.72, p<.05 supports the hypothesis (H2) that perceived credibility of user-generated content shared on SNS affects the consumers' attitude towards the UGC positively. Similarly, ATUGC→PI with β=.77, p<.05 supports the hypothesis (H3) that positive the attitude towards UGC, positive the purchase intentions of the products embedded in the UGC.

Table 4 Hypotheses Testing Results

Hypotheses	Effects	Estimate	S.E.	C.R.	P	Remarks
H1	NUs→PCUGC	.58	.08	7.15	***	Supported
H2	PCUGC→ATUGC	.72	.07	10.47	***	Supported
H3	ATUGC→PI	.77	.09	11.00	***	Supported

Note: ***$p<.05$

DISCUSSION

Social media explosion has changed the communication landscape around the globe (Edwards, 2011). It affected the marketer and consumer relationship profoundly. Consumers are no more willing to listen what business organizations want them to listen rather they want business organizations to listen what they say(Kietzmann et al., 2011). Today young consumers believe more in the product related content or information created which other consumers generate on social networking sites, multi media sites, blogs, and so on than producer or company produced product related content, despite being personally unknown or unrelated to the user (Jonas, 2010).

Present study aimed to examine the application of Social impact theory (Latane, 1981) in the SNS environment. Particularly it aimed to verify the assumption of the social impact theory that as the number of social network members increases impact on the target individual increases.

To examine the application of Social impact theory three hypotheses where developed. (1) Perceived credibility of user-generated content shared on SNS depends on number of users who generate it. The results derived from the analysis of empirical data verified this hypothesis. The acceptance of this hypothesis supports the assumption of the social impact theory. In case of SNS, the number of users affects the perceived credibility of user-generated content positively. UGC becomes credible when multiple users work on this content together (Wunsch-Vincent, 2007). Supporting sources of the same information make the information produced on social media credible (O'Reilly and Marx, 2011). User-generated information in the form of ratings and recommendations from others is important to them in their credibility assessments (Flanagin et al., 2011). (2) Perceived credibility of user-generated content shared on SNS affects the consumers' attitude towards the UGC positively. The empirical results also designated this hypothesis as true. High credibility perceptions ultimately lead to favorable attitudes

toward the brand (Friedman and Friedman, 1979; Ohanian, 1990; Erdogan, 1999). (3) Positive the attitude towards UGC, positive the purchase intentions of the products embedded in the UGC. The results of this study verified this hypothesis as true. Consumer's attitudes toward UGC strengthen the consumption of such content (Daugherty et al., 2008).

CONCLUSION

The emergence of social media changed the landscape of communication. Today, consumers give more importance to the product related content created by other consumers on SNS than producer-generated content. The purpose of the present study was to verify the claims and assumptions of social impact theory (Latane, 1981) in social media environment. The findings of present study verified the claim of social impact theory that "as the number of people increases the impact on the target individual's attitude and behavior enhances." The results revealed that number of users who generate product related content on SNS positively affects the perceived credibility of this content. In others words, consumers who are seeking other consumers' product related recommendations and information on the SNS perceive UGC more credible when multiple consumers create it. Results also revealed that perceived credibility of UGC affects consumers' attitude towards it positively, which in turn affects their purchase intentions of the product mentioned in it.

CONTRIBUTION, LIMITATIONS AND FUTURE DIRECTIONS

The incremental contribution this study made is the verification of the claims and assumptions of the social impact theory in social media environment. Furthermore, it presents the thinking of the young consumers from an Asian and developing country about the UGC available on SNS. The findings of this study can guide practitioners in developing social media advertising messages. These findings indicate that when practitioners/advertisers develop product related ads on SNS they should use multiple opinion leaders from consumers to endorse their product related messages.

Present study is not without limitations. It only examined the impact of number of users on perceived credibility of UGC and consumer attitude. The future research should also examine the impact of consumers past experience with product or brand related recommendations and information embedded in the UGC.

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Appendix 1

Construct	Items	References
NUS	I often read product related posts and scraps written by multiple social media users.	Bailey (2005)
	To ensure the credibility of UGC, I often observe what multiple social media users comment on it	
	If I have a little experience with a product, I often read that product related posts and comments by multiple users on social media networking sites.	
	I frequently gather information from multiple users on social media site about a product before I buy.	
	I trust the product related user generated information when multiple users rate it positively.	Nurmi, Salmela-Aro and Haavisto (1995)
	I usually feel confident in UGC especially when a group of user votes that positively.	Jones, Briggs, and Smith (1986)
	I find the UGC related to my desired product stimulating especially when multiple users create it.	Cheek and Buss (1982)
	I prefer to use the product related information available on social media network sites particularly when multiple number of users post it.	
Information Credibility	Product related content shared on SNS sites is reliable.	Chi (2011)
	Product related content shared on SNS sites is credible.	
	Product related content shared on SNS sites is dependable	
	Product related content shared on SNS sites is accurate.	
	Product related content shared on SNS sites is truthful.	
	Product related content shared on SNS sites is honest.	
Attitude	I like to read product related content on SNS.	Liu, Liao, and Pratt (2009)
	SNS are a useful sources of useful product related information	
	SNS sites enable me to get reliable product related information/content.	Lai and Chang (2011)
	SNS enable me to get rich product related information/content.	
	SNS provide me diverse types of product related information/content	
	SNS enable me to know the views of multiple users on a specific product	
Purchase Intentions	I intend to consider the products users share on social media networking sites in my future purchases	Liu et al. (2009)
	I intend to make my future purchase decisions based on the product related information users share on social media networking sites	