Impact of social network on purchase decision: a study on teenagers of Bangladesh

Md. Rakibul Hasan
Md. Ridhwanul Haq
Institute of Business Administration, University of Dhaka, Bangladesh

M Zamanur Rahman
School of Business, Uttara University, Dhaka, Bangladesh

Abstract

Social Network has enabled unique growth in our daily interaction with each other as it has become the modus operandi of the 21st century. With rapid development and acceptability of this platform, it now plays a big role in consumer purchase decision where teens are considered as the changing agent. This study attempts to reveal the factors of Social Network that influence the purchase decision among the teens of Dhaka considering Online Peer Communication, Social Networking Groups, Brand Fan Pages and Advertising on Social Network as antecedents; and Purchase Decision as outcome. Hypothesis have been developed accordingly and tested through applying Structural Equation Modeling with AMOS 20. Based on a survey among 381 college and university students across Dhaka city proves that the Social Networking Groups, Brand Fan Pages and Paid Advertising have positive influence on Purchase Decision whereas Online Peer Communication surprising came as insignificant. This research provides a guideline for the advertisers of Bangladesh who are willing to promote their product, and brand through Social Networking platform.

1. Introduction

Globally, the number of internet users exceeded 4 billion among which 3 billion people are exposed to social media every month, with 90% users accessing their preferred platforms through mobile devices (we are social & Hootsuite report 2018).

According to Bangladesh Telecommunication Regulatory Commission (BTRC) report in August 2018, 90.5 Mn people were using internet in Bangladesh among which 84.69 Mn people were using mobile internet. Hence, the internet penetration is 54.5% and mobile internet penetration is 51%. 30 Mn people actively use social media in Bangladesh with 28 Mn people accessing via mobile devises. Most of these social media users are exposed to social network, especially Facebook. Monthly active Facebook users in Bangladesh is 30 Mn. Dhaka, with 20M Facebook users, is the 2nd largest city across the world in terms of number of active Facebook users. Other than Facebook, YouTube, Instagram and LinkedIn are popular social networking sites. People also uses instant messaging apps, e.g., WhatsApp, Viber, Messenger to interact with each other promptly. These apps allow subscribers to open groups of common interest, and therefore many groups are formed within friends, family and office colleagues. Skype and Imo are two popular apps in Bangladesh that specializes in providing video chat and voice calls between internet enabled computers, tablets and mobile devises. Facebook live is very trendy these days where people can share their point of views and live experiences. Many online stores and individuals also use this live platform to showcase their product and generate sells.

Social Network, especially Facebook has become an integral part of advertising in Bangladesh now a days. Advertisers are now aware of the fact that they must invest in digital media in general and social networks in particular to stay connected with their target group. According to BTRC, top three mobile operators spent $12.4 Mn in 2017-18.

Few years back advertisers used to spend mostly on traditional media (ATL) and if there was any budget left they used to consider digital platforms as an experiment. However, over the years with growing number of mobile internet penetration (51%), high speed internet connection through mobile devises (4G) and affordability of smartphone (less than $40) and data (6GB in less than $3.5 with 15 days validity) have led more people to exposed to social network. Advertisers realized these facts and many advertisers now split their budget as Digital and Non-Digital. There are few Small and Medium Enterprises (SME) and individual sellers who are only targeting their consumers through online platforms.

2. Theoretical background and research hypothesis

Social Networking Sites are web-based services that allow individuals to construct a public or semipublic profile within a bounded system, articulate a list of other users with whom they share connection and, view and traverse their list of connections and those made by others within the system (Boyd & Ellison 2008). Social Networking Sites (SNSs) have seen an inorganic growth in quantity and popularity (Lutfiye Can and Nihat Kaya 2016). Recent studies revealed that people are using multiple SNSs Platforms (Olufadi 2016). 52% of the internet users subscribed to two or more of the following SNSs (Facebook, Twitter, Instagram, Pinterest and LinkedIn) compared with 42% who did so in 2013 (Duggan et al. 2015).

Consumers now a days seek peer opinions before making purchase decisions. Some of the consumers get product information from different social networking groups they belong. Curious people also tend to follow the brands they are interested in through liking brand pages. Paid Advertising also targets prospective consumers. Purchase decisions through social networking can be influenced by Peer Communication (X. Wang et al 2012), Social Networking Groups, Brand Fan Pages (Chi-Hui & Kuo-Chang 2017; Chetna, Pallab & Arun 2015, Lisette, Sonja & Peter) and Paid Advertisement (Bamini, Mohd & Wong 2014)

Some studies have been conducted on Social Media and its positive or negative impact on society (Faruq et al. 2017) and contribution in education system (Mouri & Ali 2016, Asad, Mamun & Clement 2012) in Bangladesh. Its impact in Marketing is also covered in other studies (Akhtar 2016). However, the factors that influence the purchase decision through social network is ignored. This study aims to reveal the influence of Peer Communication (PC), Social Networking Groups (SNG), Brand Fan Pages (FP) and Paid Advertisement (PA) on Purchase Decision (PD).

2.1 Peer Communication and Purchase Decision

Peer collaborations among teenagers in person emphasizing on products and services were primarily referred as Peer Communication. (Moschis and Churchill 1978). However, peer communication in social media requires interactions about products or services among consumers through internet enabled social networks (Dhar and Chang 2009).

People can connect with their peers in Social Media by adding them to their network of friends, which enables interactions, predominantly among peer groups (Ahuja & Galvin 2003, Zhang and Daugherty 2009). Social media brought changes that is also affecting the consumer decision making process and marketing communications (Hennig-Thurau et al. 2011; Shankar and Malthouse 2007). It changes the way consumers and marketers interact (Hennig-Thurau et al. 2004; Nambisan and Baron 2007). Peer communication through virtual means has intense influences on purchase decision making by consumers and, therefore on marketing strategies (Casteleyn, Mottart & Rutten 2009, Okazaki 2009)

Consumers' attitude towards goods and services are greatly influenced by their interaction with peers. (Churchill and Moschis 1979; Mukhopadhyay and Yeung 2010). It is also noted that there are reference group peers' influences consumer behavior (Bearden and Rose 1990). Past researches showed that peer communication has an intense influence on attitudes toward advertising (De Gregorio and Sung 2010), shopping orientations (Lueg et al. 2006; Mangleburg, Doney, and Bristol 2004), and purchase decision-making (Shim 1996; Smith, Menon, and Sivakumar 2005). Consumption

related peer interactions on a regular basis bring robust motivations on social consumption (Moschis and Moore 1984; Shim 1996)

From the above literature it is evident that Online Peer Communication may have influence on Consumer Purchase Decision. Hence, we can predict:

H1: Online Peer Communication Influences Consumer Purchase Decision

2.2 Social Network Groups and Purchase Decision

Social Networking Groups (SNGs) are created to provide smaller networks within the bigger and more diverse social network services. Often termed as a e-group or community, many Social Networking Services allow the users to create customized groups where they can post, comment and read from their common interest. The owners, moderators, or managers of the group can regulate members' behavior within the group and may edit posts in discussion threads if that violates policy. These groups may have open or close access depending on the intent of the owner and the nature of the group.

SNGs and their impact on purchase decision have been ignored in the existing literatures on Social Media and Consumer Behavior. However, the number of SNGs and frequent interactions among members are on the rise. The involvement and interactions among members are also sometimes on consumption matters.

SNGs can be within close peer groups. People from same educational institutes or offices or the likes sometimes open these groups to stay connected. However, people sometimes also subscribe to 3rd party SNGs like Desperately Seeking Dhaka or Traffic Alert. Lot of conversations of common interest are taking place in these groups which also includes opinions related to purchase. Hence, we predict,

H2: Social Networking Groups influence Consumer Purchase Decision

2.3 Brand Fan Pages and Purchase Decision

Facebook launched 'Fan pages' in 2007 that enabled subscribers to connect and associate with business and companies in the same style they interact with the profiles of other Facebook subscribers (Chetna, Pallab and Arun 2015).

Subscribers of social networking sites can become fans of brands on dedicated fan pages where they can express their passion about the brand and be united by their common interest in the brand (Kozinets 1999). The relationship between consumers and brands is partly reflected in brand fan pages (McAlexander, Schouten, and Koenig 2002). It also works as information source and provide social benefits to the fans (Bagozzi and Dholakia 2002; Dholakia, Bagozzi, and Pearo 2004). Businesses can create posts comprising stories, photos, videos, or other material in their pages and fans can then connect with these brands by reacting or commenting on them.

Consumers purchase decision is influenced by the interactions on social media by the brands, specially interactions that occurred in Facebook Page of companies (Hutter, Hautz, Dennhardt & Fuller, 2013). Consumers not only share their product experience but also explore other consumers' product reviews on various platforms including sellers' web sites, brand community, independent web sites, and consumer blogs. (Lee & Youn, 2009). The contribution of companies' fan pages is significant towards achieving sales and it has been accepted widely as marketing communication channel (Poyry, Parvinen & Malmivaara, 2013)

Thus, we assume taking into account consumers interactions with brand fan pages:

H3: Brand Fan Pages influences consumer purchase decision

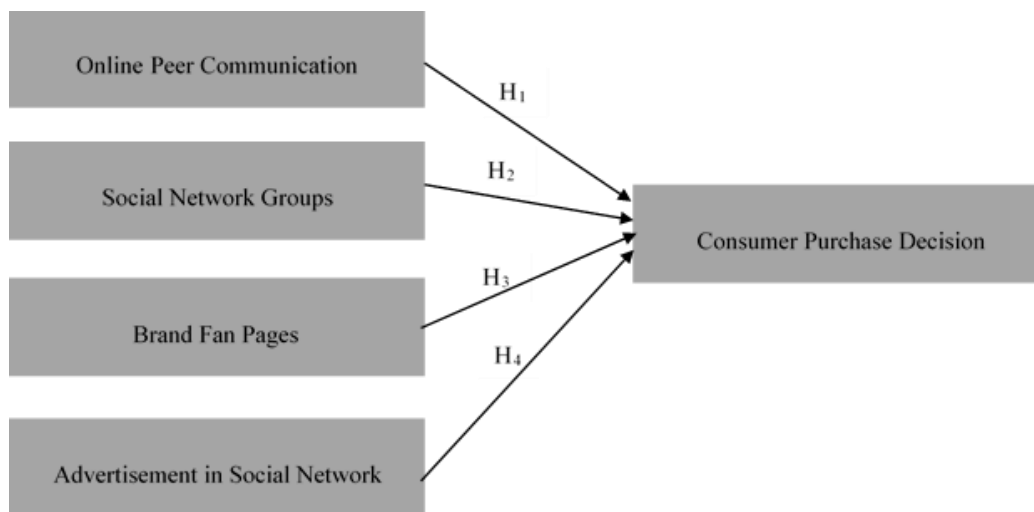## 2.4 Paid Advertisement on Social Network and Purchase Decision

Social Network Advertising refers to online advertising that uses social network platforms, such as Facebook, Twitter, LinkedIn, Google+, YouTube, Pinterest, Instagram and others to market their message to a targeted group of people.

It's very difficult to disregard paid advertising on social network. There are 2.5 billion social media users out of 3.2 billion internet users worldwide. Facebook have more than 1.9 billion unique users per month. Hence, it is imperative to include social network in most of marketing communication strategy today. Online advertisement played an important role as a source of information for the consumers get relevant product information (Chi-Hui Chiang & Kuo-Chang Tseng)

The importance of advertising on social media has grown exponentially. From the beginning of advertising option by Facebook in May 2005, advertising revenue from social media was projected to have reached $8.4 billion by 2015. Today businesses consider online advertising by default. People share their personal interest in social media and businesses can use that information to find new customers through interest-based targeting and advertising on social media. Firms regardless of size are present on Facebook, Twitter & YouTube and advertising on these platforms increases the chance to reach, engage and convert customers. Thus, we predict:

H4: Paid Advertisement on social network influences consumer purchase decision

3. Research Framework

H1: Peer Communication in social networks influences Consumer Purchase Decision
H2: Social Networking Groups influence Consumer Purchase Decision
H3: Brand Fan Pages Influences Consumer Purchase Decision
H4: Paid Advertisement on social network influences Consumer Purchase Decision

4. Methodology
4.1 Sample and Data Collection

Data were collected via face to face interviews from teenage students from 29 educational institutions. The institutions were both college and universities located in Motijheel, Shantinagar, Khilgaon, Gulshan, Banani, Uttara, Dhanmondi and Mohammadpur of Dhaka city. Every institute was first approached officially. A written requisition was presented to the authorities. The institutes that were compiled were had a greater rate of sample collection. However, when the data collection was not authorized, students were interviewed outside the campus to optimized cost and sample. Every sample was collected with the authorization of the respondent. Participants consisted of approximately 51% male and 49% female. In terms of level of education of respondents, 44.6% were college students and 55.4% were university students. As we targeted the teenagers, we selected only 1st and 2nd year students when it came to selecting respondents from Universities.

The questionnaire contained 24 demographic variables and 5 constructs divided into 27 items to understand the purchase decision-making process. 381 individuals were interviewed among which

359 were responded 100% to the questionnaire. All respondents have an active social media account (Twitter, Facebook or any other). The first part of the questionnaire included questions to measure the demographic characteristics of the sample. The second part of the questionnaire included items to measure respondents' purchase behaviors and purchase decision making patterns based on the different aspects of social network. A common five-point Likert scales with anchors 1=strongly agree and 5=strongly disagree were used.

38% of the fathers have attained Higher Secondary Certification (HSC). However, the proportion is higher for mothers which are about 57%. About three fourth of students have fathers with a white-collar job. The mode monthly income of the of the family is 25,000 BDT to 50,000 BDT. 35% of the students have part-time earnings.

		Frequency	Percent
Age	Below 15	1	0.3
	15 – 17	80	21
	Above 17	300	78.7
	Total	381	100
Gender	Male	195	51.2
	Female	186	48.8
Residence	Posh Area	97	25.5
	Other	284	74.5
Father's Education	Below SSC	33	8.7
	SSC	42	11
	HSC	59	15.5
	Graduate	130	34.1
	Post Graduate	83	21.8
	Above Post Graduate	34	8.9
Mother's Education	Below SSC	54	14.2
	SSC	64	16.8
	HSC	103	27
	Graduate	116	30.4
	Post graduate	35	9.2
	Above Post Graduate	9	2.4
Father's Job Type	White Collar	265	69.6
	Blue Collar	116	30.4
Family Income	Below 10,000	10	2.6
	10,000-25,000	57	15
	25,000 – 50,000	143	37.5
	50,000 – 100,000	127	33.3
	Above 100,000	44	11.5

Table 1: Comparison of Sociodemographic characteristics of respondents

4.2 Analytical Tools

Both descriptive and inferential statistics were used. Simple percentage were used to describe the socio-demographic characteristics of respondents. A Principal Component Analysis (PCA) along with an Orthogonal Rotation (Varimax) using SPSS was performed on the survey data. Factor Analysis (FA) was used to separate the factors of social network that influences purchase decision. Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM) were also conducted to identify the significant factors concerning purchase decision through social network.

4.3 Measurement Model Evaluation

Measurement model was evaluated through both convergent and discriminant validity tests.

Convergent validity tests were performed to realize if items effectively reflected their corresponding constructs (factors). It was assessed by examining the Composite Reliability (CR), Item Reliability, and Average Variances Extracted (AVE). Composite Reliability (CR) should be greater than 0.7. Standardized factor loading, and AVE should be greater than 0.5, Cronbach's Alpha must be greater than 0.7. (Hair Black et al. 2006)

			Loadings	AVE	CR	Cronbach's Alpha
PC_5	<---	F1	0.58	0.45	0.76	0.8
PC_4	<---	F1	0.62			
PC_3	<---	F1	0.69			
PC_2	<---	F1	0.77			
PC_1	<---	F1	0.67			
SNG_4	<---	F2	0.51	0.48	0.65	0.72
SNG_2	<---	F2	0.79			
SNG_1	<---	F2	0.75			
BP_3	<---	F3	0.65	0.54	0.74	0.77
BP_2	<---	F3	0.82			
BP_1	<---	F3	0.73			
BP_6	<---	F4	0.58	0.51	0.67	0.74
BP_5	<---	F4	0.77			
BP_4	<---	F4	0.76			
ADV_5	<---	F5	0.64	0.43	0.68	0.75
ADV_3	<---	F5	0.69			
ADV_2	<---	F5	0.64			
ADV_1	<---	F5	0.67			
PD_6	<---	F6	0.58	0.4	0.62	0.74
PD_5	<---	F6	0.64			
PD_4	<---	F6	0.54			
PD_3	<---	F6	0.76			

Table 2: Convergent Validity

All item loadings are greater than 0.5, CR greater than 0.6, AVE greater than 0.40 and Cronbach's Alpha greater than 0.7. Hence, in terms of convergent validity item loadings and Cronbach's Alpha are fine whereas CR and AVE are little less than acceptable limit.

Discriminant validity was verified by determining if the square root of each construct's AVE was greater than its correlation with other variables (Fornell and Larcker 1981).

	Mean	SD	F1	F2	F3	F4	F5	F6
Peer Communication (F1)	2.47	1.14	*0.67*					
Social Networking Groups (F2)	2.63	1.22	0.57	*0.69*				
Brand Fan Pages - Pre (F3)	2.45	1.19	0.43	0.4	*0.74*			
Brand Fan Pages - Post (F4)	2.37	1.12	0.6	0.62	0.62	*0.71*		
Advertisement (F5)	2.57	1.24	0.53	0.54	0.64	0.59	*0.66*	
Purchase Decision (F6)	2.67	1.24	0.42	0.62	0.32	0.65	0.6	*0.63*

Note: the square roots of the AVE were represented by diagonal lines in bold

Table 3: Discriminant Validity

The results indicated good discriminant validity as the square roots of the AVE were all greater than the cross - construct correlation coefficients. Therefore, the model had a good internal fit.

4.5 Coefficient of Determination

R^2 value of the model is 59.08%. It means independent variables, i.e., Peer Communications, Social Networking Groups, Brand Fan Pages and Advertisement on social network explained 59.08% of the variance in the dependent variable, purchase decision through social networks. As R^2 is greater than 50%, the model is acceptable.

5. Results and Findings

Results of Exploratory Factor Analysis (EFA), Confirmatory factor Analysis (CFA), and the Structural Equation Modeling are reported in this section.

5.1 Results of Exploratory Factor Analysis (EFA)

Four frequently used assumptions were followed (Hair et al., 1998; Field, 2000): i) Kaiser-Meyer-Olkin (KMO) Measure of sampling adequacy to be greater than 0.5, ii) Minimum eigenvalue for each factor to be one, iii) Minimum loading for each factor to be 0.5 and iv) varimax rotation were used for it is good general approach that simplifies the interpretation of factors (Field, 2000).

According to Hair et al. 2010, factor analysis is appropriate if Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is greater than 0.5 and Bartlett's test of Sphericity are significant (less than 0.05). Here, KMO value is 0.898 (higher than 0.5) and significance level of Bartlett's Test of Sphericity is p=0.000 (less than 0.05) suggested that factor analysis is appropriate for analyzing our data.

After examining the pattern matrix of the EFA, the study found that 22 out of 27 items had loadings greater than 0.5 which suggested factor analysis to be appropriate. After confirming research constructs, principal components analysis and the varimax rotation method were specifically used to extract factors 22 items. Hair et al. (2010) recommend that each item factors loading must be more than 0.50 values are considered highly significant. Based on eigenvalue greater than 1, a six-factor model that explains 59.38% of the total variance has been developed. 22 items were grouped into six different factors like Peer Communication (PC), Social Network Groups (SNG), Brand Pages Pre-Buy (BP-Pre), Brand Pages Post Buy (BP-post), Advertisement on Social Network (ADV) and Purchase Decision (PD) by the analysis. The EFA result also showed -0.159 as the lowest and 0.787 as the highest factor loadings of the variables. The result of factor analysis showed that all the factors are acceptable for further analysis. Surprisingly brand pages are divided into two factors. We termed one as Brand Pages Pre-Buy (BP-Pre) and Brand Pages Post buy (BP-Post).

Rotated Component Matrix[a]

	Component					
	PC	ADV	PD	BP-PRE	SNG	BP-POST
PC_Product Query	.743	.012	.068	.175	.158	-.032
PC_Buying	.761	.069	.112	.154	.116	.187
PC_Recommendations	.707	.113	.107	.153	.063	.128
PC_Information	.669	.204	.059	.142	.098	.037
PC_Encouraged	.595	.228	.064	-.159	.148	.283
PC_Product Experience	.451	.292	-.052	-.109	.454	.125
SNG_Talked	.196	.066	.265	.133	.742	.059
SNG_Advise	.252	.209	.223	.117	.638	.153
SNG_Influence	.160	.293	.286	.280	.367	.108
SNG_Experience Sharing	.056	.065	.066	.101	.730	.174
BP_Followed or Liked	.070	.241	-.088	.787	.049	.073
BP_Product Information	.120	.244	.057	.768	.086	.124
BP_Product Query	.178	.004	.106	.649	.235	.334
BP_Recommendations	.290	.126	.222	.338	.040	.664
BP_Purchased	.203	.100	.283	.337	.143	.630
BP_Opinion	.085	.187	.074	.049	.326	.695
ADV_Saw	.228	.601	.020	.386	.029	.048
ADV_Paid Attention	.006	.729	.033	.091	.057	.239
ADV_Clicked Ads	.167	.760	.045	.180	.158	-.036
ADV_Purchased	.152	.498	.326	-.038	.138	.395
ADV_Influenced	.133	.563	.337	.069	.180	.304
PD_Product Review	.291	.456	.312	.316	.170	.032
PD_Learned About Product	.222	.472	.232	.390	.079	-.057
PD_Bought	.151	.396	.555	.123	.228	.164
PD_Third Party Suppliers	.080	.004	.730	-.083	.133	.091
PD_High Involvement Products	.012	.068	.690	-.026	.205	.194
PD_Low Involvement Products	.094	.154	.731	.168	-.005	.036
Extraction Method: Principal Component Analysis.						
a. Rotation converged in 9 iterations.						

Table 4: Results of EFA

5.2 Results of Confirmatory Factor Analysis (CFA)

CFA was used to test how well the measured variables represent the constructs identified from EFA. The $\chi 2/df$ for this model was 2.717 that was smaller than 3 that was recommended by Marsh and Hocevar (1985). Goodness of Fit Index (GFI) was 0.883 that was marginally lower than the recommended value of 0.90 (Joreskog & Sorbom 1984). Moreover, the Adjusted GFI (AGFI) is 0.847 was greater than the recommended value of 0.80 by Anderson and Gerbig (1984). Furthermore, Comparative Fit Index (CFI) is 0.881 that was slightly lower than recommended value of 0.90 (Bentler, 1990). Finally, the Root Mean Square Error of Approximation (RMSEA) was 0.069, which also was smaller than the recommended value of 0.08 as suggested a good fit to the data by Browne & Cudeck, (1993) 0.08. The fit indices showed a good model fit to the data. The other model fit indices were IFI = 0.882, TLI = 0.858, and RMR = 0.089 (Table 5 & Figure 1).

Goodness of Fit Indices	Result	Level of acceptance	Reference	Determination
Chi-square/df	2.717	< 3.0	Marsh and Hocevar (1985)	Excellent
CFI	0.881	>0.90	Bentler (1990)	Slightly Low
RMR	0.089	<0.08	Hu & Bentler (1998)	Slightly High
GFI	0.883	>0.90	Joreskog & Sorbom (1993)	Slightly Low
AGFI	0.847	>0.80	Anderson and Gerbig (1984)	Excellent
IFI	0.882	>0.90	Bollen, K. A. (1989)	Slightly Low
TLI	0.858	>0.90	Bentler and Bonett (1980)	Slightly Low
RMSEA	0.069	<0.08	Browne & Cudeck (1993)	Excellent

Table 5: Summary of Model Fit

In summary, there was a fairly good fit between the data collected and measurement model which was further evaluated for construct reliability and construct validity. The construct reliability for two factors are above 0.70 and for other factors are above 0.60. the acceptable threshold is 0.70 as identified by Hair et al. 1998.
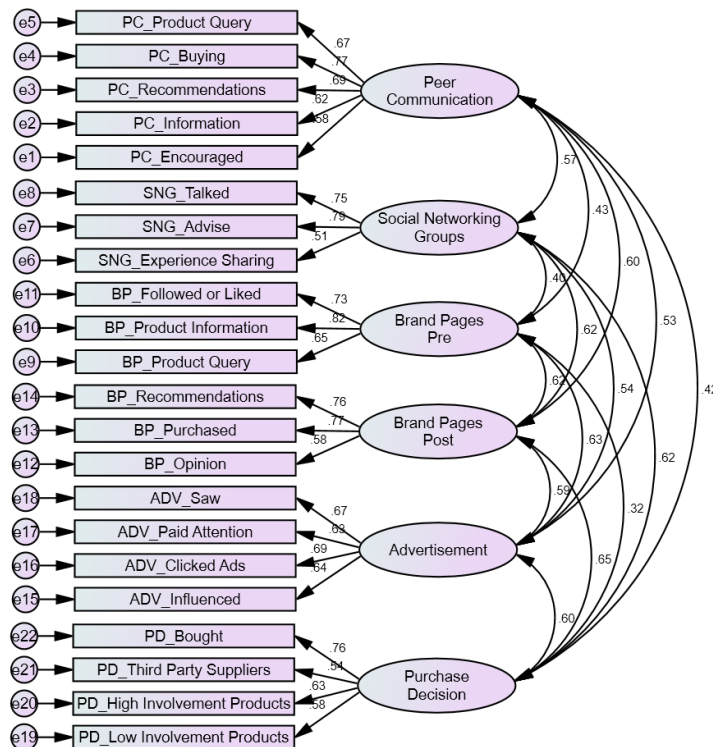
Figure 1: Confirmatory factor analysis of the constructs

5.3 Results of Structural Model

A multivariate analysis technique like covariance based structural equation modeling was used to identify the significant relationship between purchase decision and identified factors, i.e. Peer Communication (PC), Social Networking Groups (SNG), Brand Pages Pre (BP-Pre), Brand Pages Post (BP-Post) and Paid Advertisement (Adv).

Table 6 lists the structural parameter estimates and the hypothesis testing results. This study examines the impact of Peer Communication, Social Networking Groups, Brand Pages Pre, Brand Pages Post and Paid Advertisement on Purchase Decision. The Path diagram (Figure 2) revealed 4 hypotheses with reference to SNG, BP-Pre, BP-Post and Adv to be significant. Surprisingly, the hypothesis with reference to Peer Communication appeared insignificant. Purchase Decision was positively affected by SNG (β =.341, p=.003), BP-Post (β =.498, p=.000), Adv (β =-.381, p=.000) and negatively affected by BP Pre (β =-.324, p=0.002). Hence, the results showed the support for H2, H3, H4 and H5.

Factors	Estimate	S.E	C.R.	P	Sig.
PD ← PC	-0.148	0.099	-1.492	0.136	Not Significant
PD ← SNG	0.341	0.116	2.933	0.003	Significant
PD ← BP Pre	-0.324	0.105	-3.082	0.002	Significant
PD ← BP Post	0.498	0.125	3.993	***	Significant
PD ← ADV	0.381	0.1	3.802	***	Significant

Note: PD: Purchase Decision, PC: Peer Communication, SNG: Social Networking Groups, BP Pre: Brand Page Pre, BP Post: Brand Page Post, ADV: Advertisement
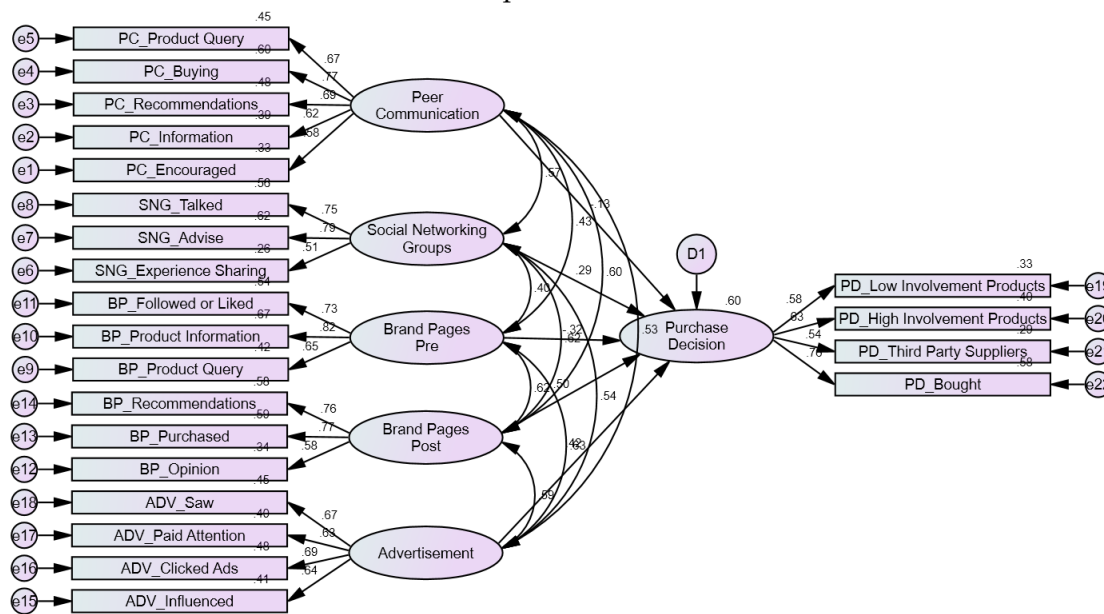
Table 6: Results of Structural Relationship

Figure 2: Path Model

6. Discussions and Conclusions

The study identified 5 factors through exploratory factor analysis that influence making Purchase Decision (PD) through social network. The factors are Peer Communication (PC), Social Network Groups (SNG), Brand Fan Pages – Pre (BP-Pre), Brand Fan Pages – Post (BP-Post) and Paid Advertisement on Social Network (Adv). These factors are confirmed by confirmatory factor analysis.

The analysis also endorsed that Social Networking Groups, Brand Fan Pages – Pre, Brand Fan Pages – Post and Paid Advertisement on Social Network have significant relationships with the Purchase Decision through social networks. The relationship between Peer Communication and Purchase Decision through social network appeared insignificant which is quite unexpected. Credible explanations to this anomaly can be found in the innate characteristics of teenagers in colleges and universities to accept information that can be quite different from the rationality possess by grown up customers.

Peer Communication through social network is very common in Dhaka where people talk about many things including the issues related to purchase a product or service. However, if such communication translates to purchase decision of teenagers is questionable. There are many groups in social network where people of common interest converge to share information which also sometimes related to purchase decision making. Most of the renowned brands today, have their own pages in social network, especially on Facebook, which are being followed by fans of those brands. People spend significant amount of time on laptops and smart phones these days. Hence, most of the brands tries to reach their consumers through advertisement in social network.

7. Contribution to the Industry

The findings of the research will help the advertisers and media investment management agencies to understand the factors of Social Network that influence consumers' purchase decision. As a result, advertisers and media agencies can bring more efficiency to the investment in media. Traditional media owners will also be benefited if they understand the rapid digital transformation is taking place in every sector including media.

8. Limitations and direction for future research

The research is limited to one vertical of Social Media only which is Social Network. It does not include other verticals of Digital Media like Online Marketing Communications (Web Sites, Search Ads, Display Ads, email) and Mobile Marketing. The research include only Dhaka Metro and it does not include other parts of Bangladesh and the Non-Resident Bangladeshis (NRBs).

In future research can be conducted on other verticals of Digital Media (e.g. Display, Search, Mobile, Email) and their influence of purchase decision. In the research finding we have seen Social Networking Group have positive impact on purchase decision. However, no research where found regarding Social Networking Group in existing literature of consumer behavior. Hence, this can be an interesting area to explore for future researchers. Surprisingly, it appeared that Peer Communication does not have any impact on purchase decision of teenagers of Dhaka. However, Peer is an important agent of consumer socialization that we all know. Further research can be conducted to deep dive into the matter. It can be because of geography or age group of the sample that we selected for the research.

References

Ahuja, Manju K. & Galvin, John E. (2003), "Socialization in Virtual Groups", Journal of Management 29(2):161-185, DOI: 10.1177/0149206303029000203

Akhtar, S (2016), Impact of Social Networking Sites in Marketing Communication and Sales: A Study on Nestle Bangladesh Limited., World Journal of Social Sciences, Vol. 6. No. 1. March 2016 Issue. Pp.160 – 169

Anderson, J. C., & Gerbing, D. W. (1984), The effect of sampling error on convergence, improper solutions, and goodness-of-fit indices for maximum likelihood confirmatory factor analysis. Psychometrika, 49(2), 155-173.

Asad, S, Mamun A., Clement, C.K. (2012), The Effect of Social Networking Sites to the Lifestyles of Teachers and Students in Higher Educational Institutions, International Journal of Basic & Applied Sciences 1(4):498-510 · October 2012 with 1,710 Reads, DOI: 10.14419/ijbas. v1i4.374

Bagozzi, Richard P. & Dholakia, Utpal M. (2002), "Intentional social action in virtual communities", Journal of Interactive Marketing, Volume 16, Issue 2, 2002, Pages 2-21, DOI: 10.1002/dir.10006

Bamini K.P.D.Balakrishnan, Mohd Irwan Dahnil, Wong Jiunn Yi (2014), "The Impact of Social Media Marketing Medium toward Purchase Intention and Brand Loyalty among Generation Y", Procedia - Social and Behavioral Sciences, vol 148, p 177-185, DOI: 10.1016/j.sbspro.2014.07.032

Bearden, William O. & Rose Randall L. (1990), "Attention to Social Comparison Information: An Individual Difference Factor Affecting Consumer Conformity", Journal of Consumer Research, Volume 16, Issue 4, 1 March 1990, Pages 461–471, DOI: 10.1086/209231

Bentler, P. M. (1990), Comparative Fit Indexes in Structural Models. Psychological Bulletin, 107(2), 238-246.

Bentler, P. M., & Bonett, D. G. (1980), Significance tests and goodness of fit in the analysis of covariance structures. Psychological Bulletin, 88(3), 588.

Bollen, K. A. (1989), A new incremental fit index for general structural equation models. Sociological Methods & Research, 17(3), 303-316.

Browne, M. W., & Cudeck, R. (1993), Alternative ways of assessing model fit. Sage focuses editions, 154, 136-136.

Casteleyn, Jordi, Mottart, André & Rutten, Kris (2009), "FORUM – How to use Facebook in your market research" January 2009International Journal of Market Research 51(4), DOI: 10.2501/S1470785309200669

Chetna Kudeshia, Pallab Sikdar, Arun Mittal (2015), "Spreading love through fan page liking: A perspective on small scale entrepreneurs" Computers in Human Behavior 54:257-270, DOI: 10.1016/j.chb.2015.08.003

Chi-Hui Chiang & Kuo-Chang Tseng (2017), "The Influence of Fan Pages on Consumer Purchase Intention: Liking Behavior as a Moderator", Journal of Marketing Management December 2017, Vol. 5, No. 2, pp. 44-59, DOI: 10.15640/jmm. v5n2a5

Churchill Jr, GA & Moschis, GP (1979), "Television and Interpersonal Influences on Adolescent Consumer Learning", Journal of Consumer Research, vol.6, no.1, p.23-37

de Gregorio, Federico & Sung, Yongjun (2010), Cross-cultural challenges in product placement June 2011, Marketing Intelligence & Planning 29(4):366-384, DOI: 10.1108/02634501111138545

Dhar, V. & Chang, E.A. (2009), "Does Chatter Matter? The Impact of User-Generated Content on Music Sales (English)" Journal of Interactive Marketing; 23, 4; 300-307, DOI: 10.2139/ssrn.1113536

Dholakia, Utpal M., Bagozzi, Richard P. & Pearo, Lisa Klein (2004), "A social influence model of consumer participation in network- and small-group-based virtual communities" Intern. J. of Research in Marketing 21 (2004) 241 – 263

Faruk, M.O, Reza, A.A, Rahman, M.M. & Alam, M.R (2017), Impact of social networking sites in Bangladesh: Few Possible Solutions, I.J. Intelligent Systems and Applications, 2017, 4, 53-60 Published Online April 2017 in MECS (http://www.mecs-press.org/) DOI: 10.5815/ijisa.2017.04.06

Fornell, C., and Larcker, D. F. (1981), Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. Journal of Marketing Research (18:1), pp. 39-50.

Hair, J., Black, W., Babin, B., Anderson, R., & Tatham, R. (2006), Multivariate Data Analysis (6th ed.), Pearson Education, Inc, Upper Saddle River, New Jersey.

Hair, J.F., Black, W.C., Babin, B.J., & Anderson, R.E. (2010), Multivariate Data Analysis. Seventh Edition. Prentice Hall, Upper Saddle River, New Jersey.

Hair, J.F.J., Anderson, R.E., Tatham, R.L., Black, W.C., 1998, Multivariate Data Analysis, 5th edn, Prentice Hall, Upper Saddle River, New Jersey.

Hennig-Thurau, Thorsten, C. Malthouse, Edward, Friege, Christian, Gensler, Sonja, Lobschat, Lara, Rangaswamy, Arvind, and Bernd Skiera (2011), The Impact of New Media on Customer, Journal of Service Research 13(3) 311-330, DOI: 10.1177/1094670510375460

Hu, L. T., & Bentler, P. M. (1998), Fit Indices in Covariance Structure Modeling: Sensitivity to Underparameterized Model Misspecification. Psychological Methods, 3(4,424-453).

Hutter, K., Hautz, J., Dennhardt, S., Fuller, J. (2013), The impact of user interactions in social media on brand awareness and purchase intention: The case of MINI on Facebook. Journal of Product and Brand Management, 22(5-6), 342-351. DOI: 10.1108/JPBM-05-2013-0299

Jöreskog, K. G., & Sörbom, D. (1993), LISREL 8: Structural equation modeling with the SIMPLIS command language. Scientific Software International.

Kozinets, Robert V (1999), E-tribalized marketing?: the strategic implications of virtual communities of consumption, DOI: 10.1016/S0263-2373(99)00004-3, European Management Journal, Volume 17, Issue 3, June 1999, Pages 252-264

Lee, Mira & Youn, Seounmi (2009), "Electronic word of mouth (eWOM): How eWOM platforms influence consumer product judgement", January 2009, International Journal of Advertising 28(3), DOI: 10.2501/S0265048709200709

Lisette de Vries, Sonja Gensler, Peter S.H. Leeflang, (2012), "Popularity of Brand Posts on Brand Fan Pages: An Investigation of the Effects of Social Media Marketing", May 2012, Journal of Interactive Marketing 26(2):83–91, DOI: 10.1016/j.intmar.2012.01.003

Lueg J.E., Ponder, N., Beatty, S.E., Capella, M, (2006), "Teenagers' use of alternative shopping channels: A consumer socialization perspective", December 2006, Journal of Retailing 82(2):137-153, DOI: 10.1016/j.jretai.2005.08.002

Lueg, JE & Finney, RZ (2007), "Interpersonal Communication in the Consumer Socialisation: Scale Development and Validation", Journal of Marketing Theory & Practice, vol.15, no.1, p. 25-39

Lütfiye Can, Nihat Kaya, (2016), "Social Networking Sites Addiction and the Effect of Attitude towards Social Network Advertising", Procedia - Social and Behavioral Sciences, Volume 235, 24 November 2016, Pages 484-492, DOI: 10.1016/j.sbspro.2016.11.059

Mangleburg, T.F., Doney, P.M. & Bristol, T. (2004), "Shopping with friends and teens' susceptibility to peer influence", December 2004, Journal of Retailing 80(2):101-116, DOI: 10.1016/j.jretai.2004.04.005

Marsh, H. W., & Hocevar, D. (1985), Application of confirmatory factor analysis to the study of self-concept: First-and higher order factor models and their invariance across groups. Psychological Bulletin, 97(3), 562.

McAlexander, J.H. Schouten, J.W., & Koenig, H.F. (2002), "Building Brand Community", Journal of Marketing, Vol. 66 (January 2002), 38–54

Moschis, G P & Moore RL (1984), "Anticipatory Consumer Socialization" September 1, Journal of the Academy of Marketing Science 1984, Vol. 12, N~. 4, 109-123, DOI: 10.1177/009207038401200408

Moschis, GP & Churchill Jr, GA (1978), "Consumer Socialisation: A Theoretical and Empirical Analysis", Journal of Marketing Research (JMR), vol.15, no.4, p. 599-609

Mukhopadhyay, Anirban & Yeung, Catherine, (2010), "Building Character: Effects of Lay Theories of Self-Control on the Selection of Products for Children" Journal of Marketing Research, Vol. XLVII, pp. 240–250, April 2010, DOI: 10.1509/jmkr.47.2.240

Okazaki, Shintaro (2009), Social influence model and electronic word of mouth - PC versus mobile internet, International Journal of Advertising, The Review of Marketing Communications, Volume 28, 2009 - Issue 3, Pages 439-472, DOI: 10.2501/S0265048709200692

Olufadi, Yunusa (2016), Social networking time use scale (SONTUS): A new instrument for measuring the time spent on the social networking sites, Telematics and Informatics, Volume 33, Issue 2, May 2016, Pages 452-471, DOI: 10.1016/j.tele.2015.11.002

Pöyry E., Parvinen P., Malmivaara, T. (2013), Can we get from liking to buying? Behavioral differences in hedonic and utilitarian Facebook usage, July 2013, Electronic Commerce Research and Applications 12(4):224–235, DOI: 10.1016/j.elerap.2013.01.003

Shankar, V. & Malthouse, E.C. (2007), "The growth of interactions and dialogs in interactive marketing", 02 April 2007, DOI: 10.1002/dir.20080

Shim, S. (1996), "Adolescent consumer decision-making styles: The consumer socialization perspective", September 1996, DOI: 10.1002/(SICI)1520-6793(199609)13:6<547::AID-MAR2>3.0.CO;2-8

Smith, D., Menon, S. and Sivakumar, K. (2005), Online Peer and Editorial Recommendations, Trust, and Choice in Virtual Markets. Journal of Interactive Marketing, 19, 15-37, DOI: 10.1002/dir.20041

Wang, X., Yu, C & Wei, Y (2012), " Social Media Peer Communication and Impacts on Purchase Intentions: A Consumer Socialization Framework", Journal of Interactive Marketing, Volume 26, Issue 4, November 2012, Pages 198-208, DOI: 10.1016/j.intmar.2011.11.004

Zhang, Jie & Daugherty, Terry (2009), "Third-Person Effect and Social Networking: Implications for Online Marketing and Word-of-Mouth Communication" October 2009, American Business Law Journal 24(2):53-63, DOI: 10.1108/19355181200900011