

# **How does social media marketing information influence purchase decisions? A study on online and offline markets**

**Mahabub Rahman**

Student, Marketing Management,

Hanze University of Applied Science, Netherlands

## **Abstract:**

People have become more accustomed to using social media, which is considered to be a highly interactive platform. As a result, businesses have been forced to change the way they sell their products as a result of this. It has become clear that social media is a significant influencer in decisions about what to buy and how to acquire it, and that it is an important player in the purchasing process. The importance of social media has been demonstrated by a large number of scholars who have presented their own research and come to the same conclusion. For the purposes of this study, we have taken into account only three independent constructs that are associated with social media marketing, such as informativeness, credibility, and incentives. The participants in this experiment totaled 200 individuals who served as samples. A Likert scale was used to gather information from those who participated in the survey in order to determine their level of satisfaction with it. The statistical packages SPSS and AMOS were used to analyze the data and determine what it meant. In order to answer the questions posed in this study, descriptive and inferential statistics were used in conjunction with one another. This conclusion was reached by combining the results of EFA, CFA, and SEM, all of which were used in conjunction with one another to generate the results that were presented. The ability of an item to provide people with information is the single most important factor that influences their decision to purchase it. People's decisions about whether or not to purchase a product are not influenced by factors such as credibility and reward, among others. According to the data presented above, information is the most important factor in a person's decision to purchase a product from a particular company. In this case, it is up to the people who make the decisions to use the best marketing strategies to boost sales and profits.

**Keywords:** Informativeness, Credibility, Incentives, Purchase Decision, Bangladesh

## **1.0 Introduction**

This means that in order for businesses to stay in business in today's cheap and constantly changing business environment they must change their business and market strategies, find new ways to stand out from their competitors, and find new ways to be better than their rivals. Consequently, information technology and social media are becoming increasingly important in not only attracting new customers but also retaining existing ones by providing them with timely information about new products and services, among other things. The popularity of sites like Facebook, Google+, LinkedIn, and many others shows that this is true for online platforms or social media (SM) sites. These sites have been widely used by practitioners, academics, and business people.

Electronic communication takes place in online communities where users share ideas, information, personal messages, photographs, and videos. This is commonly referred to as "social media." It is referred to as "social networking" in some circles. In recent years, this platform has become increasingly popular for a variety of tasks such as product promotion, customer surveys, brand building, online order placement, and a variety of other functions. In the marketing field, product branding, and online

promotion, only a small number of studies have been directed to examine the role of social media in these areas. On the other hand, the part of social media marketing (SMM) in customer retention over the long term has only received a small amount of research attention. There has been no attempt to do so, therefore, despite the fact that South Asian developing or least developed countries (LDCs) such as Bangladesh, India, Sri Lanka, Nepal, and others account for one-fifth of the world's population and are considered to be a rapidly expanding market for goods and services. Consequently, the study aims to determine whether social media marketing has an influence on long-term customer retention (both financially and strategically) in Bangladesh by incorporating two mediators: trust and brand value, as well as a control group, into the equation.

## **1.1 Research Questions**

One research question is raised by the discussion of the literature presented above:

- Is social media marketing (SMM) an important part of Bangladeshi consumers' overall strategy for making purchases in both the online and offline markets?

## **1.2 Research Objectives**

Based on existing literature, the goals of the study were established

- the role of SMM in the purchase decisions of products by consumers in Bangladesh's online and offline markets
- a set of action recommendations for organizations on how to make effective use of social media marketing information.

## **2.0 Review of Literature**

### **2.1 Social media marketing (SMM) and its components**

According to Yong & Hassan (2019), social media marketing is a strategy in which a business advertises its products or services on the internet in order to reach a wider audience. There were a wide range of effects on individuals and the industry as a whole from the use of social media marketing. It is therefore possible to describe social media marketing as a company's attempts to entice (prospective) customers to become aware of and interested in the brand using various internet marketing channels such as blogs and websites (Magasic, 2016). SM is a collection of Web 2.0-based internet application tools that enable users to create and share their own content (Kaplan & Haenlein, 2010). The term "social media" refers to a marketplace where sellers and buyers can connect with one another and interact in a variety of ways (Hennig-Thurau et al., 2013). Using social media platforms to communicate with existing and potential customers about new product or service announcements, price reductions or discounts, as well as the development of personal relationships and other promotional offerings, is referred to as social media marketing (SMM). According to (Verma et al. (2012), customer ratings, for example, have a significant impact on a customer's preference for which restaurant to book next in the hospitality industry.

#### **2.1.1 Incentives (ICT)**

Promotional incentives are widely regarded as a critical marketing tool for achieving superior advertising value and, as a result, increasing sales volume (Hossain & Islam, 2019). According to Varnali et al., 2012;

Martins et al., 2019; consumer responses to incentives, which have included monetary benefits like reductions, vouchers, and money, as well as other non-monetary paybacks, are highly predictive of future behavior. Financial incentives are found to influence client intentions to acquire online social media advertising (Tsang et al. (2004), and those who feel that monetary incentives should be granted to clients who consent to receiving advertisements. Kim and Han (2014) made modifications to the Ducoffe (1996) model by introducing incentives (Martins et al., 2019). The suggestion was made at the meeting that the incentives for receiving smartphone advertisements be increased, which would have an impact on the flow experience of customers. According to their findings, customers' desire for real benefits overrides their attention to a message in an advertisement, according to analysis, if they stand to gain financially from it. The result shows that customers believe an advertisement featuring incentives is more valuable than an advertisement without incentives (Martins et al., 2019).

**Hypothesis 01: The relationship between incentives and purchase decisions is positive and statistically significant.**

### **2.1.2 Credibility (CR)**

This original study's final SMM element, credibility, is included as an independent variable because it is also referred to as "credibility." Ducoffe (1996) applied words such as 'convincing, credible, dependable, and providing consistent invention information 'to describe credibility in his research (Wang & Wen, 2017). Trust in e-commerce is significantly influenced by a number of factors, which are customers' perceptions of informativeness, entertainment value, and annoyance, However, it was determined that credibility was the most significant element influencing respondents' attitudes toward advertisements (Gao & Wu, 2010). (Chowdhury et al., 2010). According to Wang and Wen (2017), consumers' perceptions of the credibility of traditional SMS advertising were mostly unfavorable, according to the research, while this perception was found to be positive on the occasion of social media advertising (such as Facebook and YouTube) (Wang and Wen, 2017). (Chowdhury, 2016). They discovered that SMS advertisements had a negative influence on consumers' attitudes toward the companies that advertised them (Van der Waldt et al., 2009). The credibility of the source was crucial in determining the success of the SMS advertising campaign. It was discovered by Wang and Wen (2017) that traditional SMS advertising was less effective at the time of low credibility and vice versa (Wang and Wen, 2017), which could be related to the ambiguity that comes with not being asked to "opt-in" while getting advertising messages. The presence of an opt-in option may assist it in gaining credibility, which may in turn boost the impact of the advertising campaign (Drossos et al., 2007). Muzaffar and Kamran (2011) indicate that the credibility of SMS advertising has a significant impact on the attitudes of young people toward it. According to Lin and Hung in 2009, sponsored links are more important to users than the majority of other types of advertising.

**Hypothesis 02: The relationship between credibility and purchase decisions is positive and statistically significant.**

### **2.1.3 Informativeness (Info)**

"Informativeness" (Info) is a term used to describe the amount of information offered about the items or services being advertised in marketing communications that are sent to customers. Ducoffe (1996) determined the informativeness of product information based on factors such as the convenience, source, relevance, timing, and completeness of the information (Wang & Wen, 2017). According to Gangadharbatla and Daugherty (2013), more and more customers want the advertisement to be more informative than just putting a product in front of them. People who find information on the internet and

electronic advertising platforms (such as social media) are more likely to be satisfied with their purchases, according to a few recent studies from various cultures. A recent Malaysian study, for example, found that individuals who seek out information on digital billboards are more likely to be satisfied with their purchase. Furthermore, according to the findings of a study conducted among Jordanian buyers, the informativeness of Facebook advertising has been found to have a significant and highly positive impact on consumer attitudes toward Facebook advertising (Alsamydai & Khasawneh, 2013). Blanco et al. (2010) demonstrated that the informational characteristics of mobile advertising, as well as consumer perceptions of mobile advertising, have a significant impact on the industry (Wang & Wen, 2017). It was revealed in another study conducted by Muzaffar and Kamran (2011) that there is a relationship between SMS advertising's informativeness and the views of young people in Pakistan regarding SMS advertising. When it comes to convincing people to purchase something, information is therefore an important component of any advertisement that they see. In contrast, Ott et al. (2016) observed in a recent study that high and medium levels of interaction on a company's social media website dramatically improved perceived informativeness, which in turn resulted in enhanced product, brand, and purchase intentions (Wang & Wen, 2017). There may be differences in thoughts and attitudes between consumers in Bangladesh and those in Western countries when it comes to advertising's perceived customization and privacy concerns, and as a result, people who live similar or contrasting lifestyles may have diverse viewpoints on the informativeness of advertising and on their attitudes toward advertising. As a result, they may have different perspectives on the informativeness of advertising based on their attitudes toward advertising, as well as similar or dissimilar lifestyles in their perspectives on the informativeness of advertising (Wang & Wen, 2017). As a result, informativeness is a component of SMM in this proposed study, and it is one of the components of an independent variable.

**Hypothesis 03: There is direct positive significance relationship between informativeness and purchase decision.**

### **3.0 Purchasing Decision (PD)**

Consumers generally belong to or admire a variety of online groups, and their purchasing behavior can be influenced by their affiliation with these groups. As a general rule, consumer decision-making occurs when they make decisions in the context of their surroundings, such as their family, friends, or co-workers. Online social networks have the potential to influence consumer purchasing decisions in the same way that traditional mass media (e.g., advertising, newspapers, and television commentary) have in the past (Solomon et al., 2010). According to Jung & Seock (2016), Kumar & Gupta (2016), and Siali et al. (2019), increasing brand awareness increased the possibility that consumers would consider the brands when making purchasing decisions. Through the use of the internet, consumers can look for information and share their own personal experiences with products or services with other consumers. In part, this fact (the ability to share opinions with others about previous experiences with products or services) contributes to the fact that social media influences purchasing decisions. Consumers are also making purchases based on recommendations received through social media (Sebastian, 2014).

### **4.0 Hypotheses for Investigation and Conceptual Framework**

The purpose of this empirical study is to determine the impact of three social media marketing factors on long-term customer retention in Bangladesh: informativeness, credibility, and incentives. The model is depicted in the following illustration:

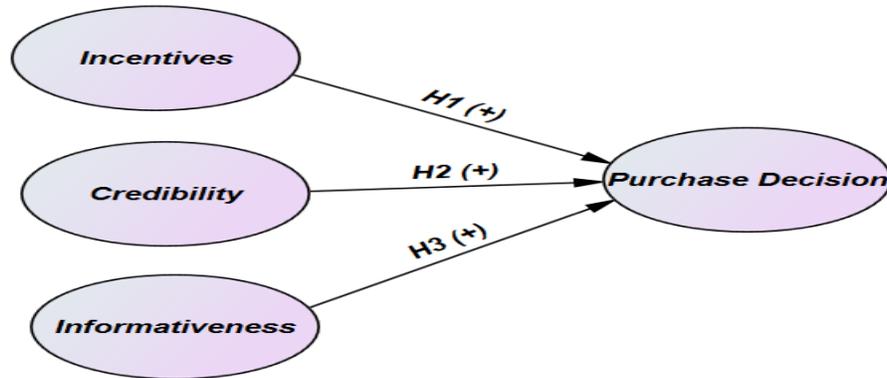


Figure 01: Conceptual Framework

## 5.0 Research Methodology

### 5.1 Research design

A quantitative statistical method was used in order to conduct the study. Individual customers were given the opportunity to complete a well-structured survey questionnaire. Because different people had different perspectives on the data, statistical analysis tools and techniques were employed to examine it. Tests were done on hypotheses to see if they were true or not after a discussion of the data.

### 5.2 Collection of data

Perception or attitude were used as primary data in the study because secondary information cannot be used to measure things such as perception or attitude. The interviews with the participants were conducted using a detailed and both structured and unstructured questionnaire that was distributed to all of the participants.

### 5.3 Sampling design

There were 200 participants in the study, all of whom were active on social networking sites. Respondents were prospective customers who had social media accounts that were active. It was used to find out if people who were active in the church used social media. This is called "judgment sampling."

## 6.0 Analysis of data and hypothesis testing

By calculating Cronbach's alpha, we were able to determine the reliability of the self-generated questionnaire used to determine SMMs and the purchase decisions of the consumers to buy products from the online/offline market. This test was carried out in order to determine the validity and reliability of the survey. Four commonly used assumptions for evaluating exploratory factor (EFA) analysis were established by Hair et al. (1998) and Field (2000), and they are summarized as follows: To be considered adequate, Kaiser–Mayer–Olkin sampling adequacy must be greater than 0.5. Each factor's minimum Eigenvalue must be greater than 0.50 in order to be considered. This approach was chosen because it is a good general one that makes it easier to understand the factors in question (Field, 2000). To be considered adequate, Kaiser–Mayer–Olkin sampling adequacy must be greater than 0.5. It was necessary to conduct confirmatory factor analysis (CFA) in order to determine the dimensionality of the independent variables. The covariance-based structural equation modelling (SEM), which is a component of the multivariate analysis technique, was used to identify the statistically significant relationships between three

independent factors, such as: (i) Informativeness (Info), (ii) Incentives (ICT), and (iii) Credibility, in one dependent variable's purchase decision, using one dependent variable as the dependent variable.

### 6.1 Normality of the Data

Regarding skewness, our indicators of latent factors had a distribution that was fairly close to normal. The values of kurtosis ranged from -0.81 to 3.09. Table 01 shows that Sposito et al. (1983) proposed a normality threshold of 3.3 as the upper limit of normality. This doesn't follow strict normality rules, but it does follow the more relaxed normality rules that they came up with.

**Table 01: Descriptive Statistics**

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Info1	200	2.71	0.79	0.14	0.17	-0.70	0.34
Info2	200	2.84	0.86	0.12	0.17	-0.81	0.34
Info3	200	2.74	0.88	0.22	0.17	-0.54	0.34
Info4	200	3.05	0.86	-0.28	0.17	-0.68	0.34
ICT1	200	2.39	0.91	0.93	0.17	0.54	0.34
ICT2	200	2.38	0.96	0.60	0.17	-0.41	0.34
ICT3	200	2.22	0.81	0.66	0.17	0.17	0.34
ICT4	200	2.23	0.88	0.54	0.17	-0.28	0.34
ICT5	200	2.22	0.82	0.83	0.17	0.64	0.34
CR1	200	2.45	0.94	0.58	0.17	-0.15	0.34
CR2	200	2.22	0.95	0.64	0.17	-0.10	0.34
CR3	200	2.12	0.94	0.81	0.17	0.40	0.34
CR4	200	2.02	0.96	1.02	0.17	0.82	0.34
PD1	200	3.99	0.63	-0.84	0.17	2.23	0.34
PD2	200	3.81	0.69	-0.64	0.17	0.75	0.34
PD3	200	4.07	0.58	-0.78	0.17	3.09	0.34
PD4	200	3.89	0.72	-1.05	0.17	2.54	0.34

### 6.2 Demographic information

Those who answered the survey questions were specifically chosen to represent a range of viewpoints on the overall role of SMM in the purchase decision of buying products in the online and offline markets in Bangladesh. People who answered structured and unstructured questionnaires about their gender, age, and level of education are shown in Table 02 based on the information they provided.

**Table-02:** Demographic information of respondents based on questionnaire

		Frequency	Percent
Gender	Male	155	78
	Female	45	22
Age	Up to 20 years	48	23
	21-24 years	143	72
	25 years and above	9	5

Education	Up to S.S.C	39	20
	H.S.C	99	49
	Hons. & Masters	62	31

According to Table 02, the vast majority of respondents (78 percent) were males between the ages of 21 and 24 years old, with the majority of them falling between those ages (72 percent). Finally, nearly half (49.3 percent) of all respondents have completed HSC levels at some point during their academic careers.

### 6.3 Measurement tool

Data was collected from consumers using a five-point Likert scale through the use of a structured questionnaire (Table-03), which was included in the measurement tool. After the reliability and validity tests have been completed, the number of items is shown in Table 03.

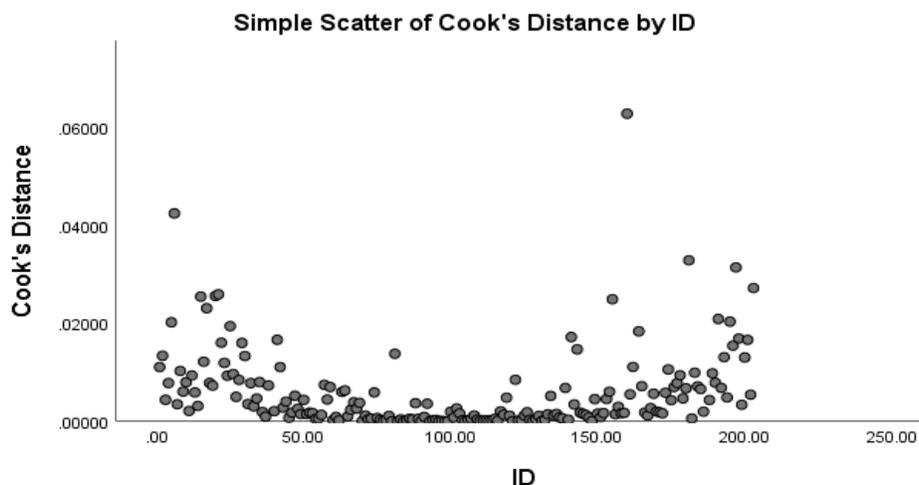
**Table-03:** Number of constructs before and after the reliability and validity tests

Latent variables	Number of items	
	Before	After
Informativeness	4	4
Credibility	4	4
Incentives	5	5
Purchase Decision	4	4
<b>Total</b>	<b>17</b>	<b>17</b>

Before the questionnaires were sent out, the respondents were given clear instructions and were informed of the questions that would be asked in the survey instrument.

### 6.4 Multivariate Normality

Cook's distance analysis is used to determine if there are any (multivariate) externally influential variables. There are several types of applications for this study. As an example, it would be good to look for important data points and see if there are any dominant variables that go with them. It would also be good to look at areas where more data points would be useful (Cook, 1979). In our research, we were unable to find any instances in which Cook's distance was greater than 1. The majority of the cases had a p-value of less than 0.06. A result of this kind shows that all of the items were given out in a normal way.



**Figure-02: Multivariate Normality of social media marketing information**

### 6.5 Preliminary analysis

Descriptive statistics for the variables are shown in Table 4, which includes means, standard deviations, and correlations among them. The estimated path connected all of the important variables in the study. As shown in Table 4, the two-tail test indicates that PD is highly correlated with three independent constructs (INFO and ICT) at a 1 percent level of significance, but not with the continuous measure (CR). While age and educational qualification have a high degree of negative correlation with gender, gender has a high degree of positive correlation with the respondent's educational qualification when using the two-tail test at a 1 percent level of significance (using the two-tail test). Two-tail tests reveal a positive correlation between respondents' education and their work experience at a 5% level of significance, indicating that this is true for a large number of people.

**Table 04:** Correlations between demographic information and social media marketing factors, as shown in the graph above.

	Mean	SD	Gender	Age	Education	Experience	PD	INFO	CR	ICT
Gender	1.24	0.43	1.00							
Age	21.63	2.10	-.308**	1.00						
Education	2.19	0.97	-0.04	.444**	1.00					
Experience	4.42	2.94	0.00	0.09	.143*	1.00				
PD	3.69	0.47	-0.02	0.00	-0.04	0.09	1.00			
INFO	3.07	0.71	-0.10	0.05	-0.06	0.09	.461**	1.00		
CR	2.12	0.82	-0.04	0.02	0.02	0.07	0.06	.140*	1.00	
ICT	2.14	0.69	-0.05	0.02	0.08	.160**	.280**	.394**	.127*	1.00

### 6.6 Tests of Reliability and Validity

For the purpose of determining the reliability of the data, we calculated average variance extracted (AVE) and composite reliability. According to Hair et al. 1998, Fornell & Larcker (1981), Henseler, Ringle and Sinkovics (1981), as well as other researchers' definitions, this table 05 shows that all data is within acceptable limits (2009). The principle of Fornell and Larcker (1981) was used to determine that the AVE value had discriminant validity by comparing the AVE value to other variables with equal correlation values. The correlations with other variables were less significant than the square root of the average variance in terms of their significance (AVE). As can be seen in Table 05, the factors' discriminant validity is shown.

**Table-05: Model validity measures**

	CR	AVE	1	2	3	4
1. Informativeness	0.845	0.580	0.761			
2. Incentives	0.940	0.759	0.385	0.871		
3. Credibility	0.905	0.708	0.128	0.103	0.841	
4. Purchase Decision	0.845	0.577	0.379	0.266	0.048	0.759

Source: Test of reliability and validity (SPSS 26)

### 7.0 Model evaluation

#### 7.1 Exploratory factor analysis (EFA)

Using four common assumptions, Hair et al. (2014) found that their exploratory factor analysis was conducted using the following criteria: sampling adequacy, minimum Eigen values, factor loadings exceeding 0.50, and Promax Rotation, which is a good general approach for reducing the complexity of factor interpretations (Henseler et al., 2009). As shown in Table 06, there is a significant Bartlett's test

value of 2212.081 with 231 degrees of freedom (df) at the significance level of 0.000, which is supported by the KMO value of 0.84. The finding that all items of the EFA pattern matrix's factor loadings have a greater value of 0.50 was encouraging. Furthermore, the EFA results showed that the factor loading with the lowest value was 0.60 and the factor loading with the highest value was 0.93. A four-factor model was found to explain 74% of the total variance of the data set based on the presence of Eigenvalues greater than one. Items in each category (based on Eigenvalue) included incentives; credibility; informativeness; and purchase decision. There was a total of seventeen items in each category (based on Eigenvalue). The first factor (incentives) is responsible for 31.816% of the total variance, the second factor (credibility) is responsible for 17.69% of the total variance, and the third factor (informativeness) is responsible for 14.552% of the total variance. When taken as a whole, all of the variables can be scrutinized in greater detail in table 06.

**Table 06:** EFA of the role of social media marketing information on purchase decision

Pattern Matrix					
Factors Name	Factor				
		1	2	3	4
Incentives	ICT3	0.91			
	ICT2	0.89			
	ICT4	0.88			
	ICT5	0.87			
	ICT1	0.78			
Credibility	CR3		0.93		
	CR2		0.90		
	CR4		0.84		
	CR1		0.66		
Informativeness	Info2			0.87	
	Info3			0.82	
	Info4			0.72	
	Info1			0.60	
Purchase Decision	PD1				0.77
	PD2				0.77
	PD3				0.77
	PD4				0.73
Total		5.409	3.007	2.474	1.795
% of Variance		31.816	17.690	14.552	10.558
Cumulative %		31.816	49.506	64.058	74.616
KMO and Bartlett's Test=0.84, Bartlett's Test of Sphericity is significant (Chi-Square=2212.081, df=136)					
Extraction Method: Maximum Likelihood. Rotation Method: Promax with Kaiser Normalization. Rotation converged in 5 iterations.					

## 7.2 Measurement model Results

Confirmatory factor analysis is a technique for determining the factor structure of a collection of variables that has been observed (CFA), which is a statistical method. Hypotheses that are based on the assumption that there is or is not a relationship (or relationships) concerning observed variables and their fundamental latent constructs are subjected to testing. This is accomplished through the use of CFA.

**Chi-square/df:** The distinction between the two matrices is stated as a degree of freedom (d/f) ratio to measure the optimal model fit, with the number of covariance corresponding to the degrees of freedom. The value of the chi-square should lie between 0 to 5. In this model, the CMIN/DF ratio is 1.54 points less than 5, which is acceptable (Marsh and Hocevar, 1985).

**GFI:** The Goodness-of-Fit Index (GFI) is a measure of how perfectly a model fits its data in general. In this case, the metric is non-statistical, and its value sorts from 0 (poor fit) to 1.0 (excellent fit) (perfect fit). If GFI contains a higher value, the model is more accurate. Because the GFI in the CFA for the overall model is greater than the suggested value of ( $> 0.90$ ), it is considered to be a good fit and usual by Joreskog and Sorbom, and thus they recommend that it be used (1993).

**AGFI:** The goodness-of-fit index (AGFI) is an addition to the goodness-of-fit index (GFI) that takes into account the degree of freedom in the projected model in comparison to the degree of freedom in the null model. It is mentioned that a value greater than or equal to 0.80 should be used as an acceptance level for AGFI. Using the CFA, the AGFI was found to be 0.88 in the overall model, which is greater than the recommended value of ( $> 0.85$ ) and is thus considered a good fit for acceptance, as recommended by Anderson and Gerbig (1984).

**CFI:** The comparative fit index (CFI) is calculated by comparing the estimated model to a null or independence model and is a measure that represents comparisons between the two models (CFI). A value in the range of 0 to 1.0 indicates a better fit, with higher values indicating a better fit. Using the following CFA, the overall model was found to have a CFI of 0.972, which is less than the recommended value of ( $> 0.90$ ), and thus is considered to have a good fit that is acceptable according to Bentler (1990).

**RMR:** Hooper et al. (2008) said that the mean absolute value of covariance residuals resulting from the difference between the sample and model covariance matrices is simply known as the residual mean absolute value (RMA). A value of 0.08 or less indicates an acceptable model by the value of RMR (Hu & Bentler, 1998). Using the following CFA, the RMR value for the overall model was discovered to be 0.034, which is less than the recommended value of (0.08), and thus was considered a good fit and acceptable in accordance with the recommendations of Hu & Bentler (1998).

**RMSEA:** When using a sufficiently large sample size, the Root Mean Square Error of Approximation (RMSEA) provides an alternative measure that attempts to compensate for the chi-square statistic's proclivity to discard any specified model with a high confidence interval (RMSEA). Acceptable values are in the range of 0.05 to 0.08, with the lower limit being 0.05. According to Browne and Cudeck, the RMSEA value in the CFA for the overall model was found to be 0.052, which is less than the recommended value of (0.08) and is therefore considered to be a good fit (1993).

**SRMR:** Standardized Root Mean Square Residual (SRMR) is 0.049, which is less than the amount necessary for a good fit to the data (Browne & Cudeck, 1993). As depicted in Figure 3, the analysis's summary findings are presented in brief. The model's fit indices showed that it was a good match for the data that was found.

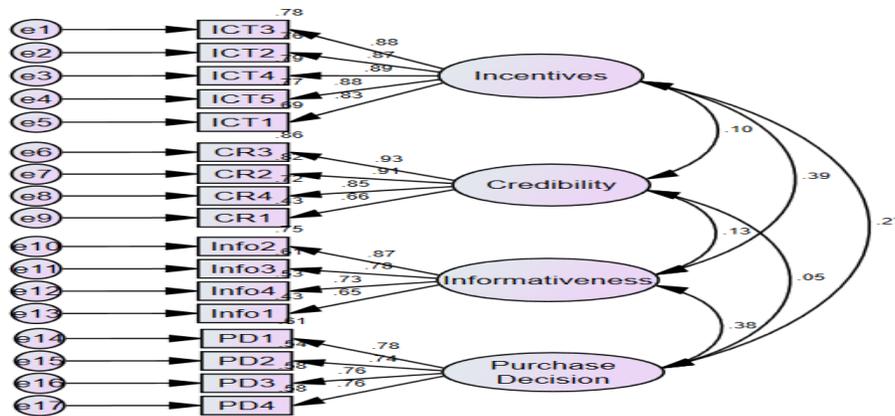


Figure 3: Confirmatory Factor Analysis results. Source: Confirmatory factor analysis.

Table 07: Model fit indices and their acceptable thresholds

Goodness of Fit Index	Value	Level of Acceptance	Reference
Chi-square/Df	1.54	<5.0	Marsh and Hocevar (1985)
CFI	0.972	>0.90	Bentler (1990)
RMR	0.034	<0.08	Hu & Bentler (1998)
GFI	0.917	>0.90	Joreskog & Sorbom (1993)
AGFI	0.88	>0.85	Anderson & Gerbig (1984)
RMSEA	0.052	<0.08	Browne & Cudeck (1993)
SRMR	0.049	<0.08	Browne & Cudeck, 1993

Df: degree of freedom; CFI: comparative fit index; RMR: root mean square residual; GFI: goodness of fit index; AGFI: adjusted goodness of fit index; RMSEA: root mean square error of approximation; SRMR: standardized mean square residual. Source: Literature review.

### 7.3 Common Method Bias Test (HTMT analysis)

The Heterotrait-Monotrait Ratio, also known as the Heterotrait-Monotrait Ratio, is a multi-trait and multi-method matrix that was developed by Henseler and colleagues to evaluate discriminant validity (2015). (HTMT). For the purpose of determining discriminant validity, generally two sorts of HTMT approaches are employed. To begin with, when the HTMT value is used as a deciding factor, it is assumed that discriminant validity issues exist if the value is greater than 0.85. This assumption is supported by the data. Regarding the second point, if an experiment is used to test the validity of the hypothesis that there are structural differences between groups, the confidence interval for the HTMT values for the structural paths must be at least one standard deviation wide. This implies that discriminant validity is ineffective. The findings of the HTMT are displayed in the table (Table-08). When the difference between the values of one factor and another is less than 0.85, there is usually no method bias (Henseler et al., 2015).

Table 08: HTMT analysis

	ICT	CR	INFO	PD
ICT				
CR	0.128			
INFO	0.385	0.117		
PD	0.251	0.066	0.411	

As shown in Table 8, HTMT discriminate validity was demonstrated in this study, because all HTMT values appeared to be lower than the acceptable threshold values of HTMT 0.85 as defined by Kline (2011) and HTMT 0.90 as stated by Gold & Malhotra (2001). The lower and upper CIs do not contain a single value, which is an important distinction to make. Convergent and discriminant validity for each factor has been established by testing. In our analysis, we seemed to be able to conclude that the correlation value of one factor with another was significantly lower than 0.85, and we can therefore conclude that common method bias was not present.

#### 7.4 Multicollinearity Test

Generally, the variance inflation factors (VIFs) range from 1 to 10. For each coefficient, VIF can be used to explain how much of the variance is inflated. The interpretation of the VIFs is as follows: Hair and other accoutrements (1998) Hair et al. (1998). A value of 1 indicates that the variables are uncorrelated; a value of 1–5 indicates moderately correlated; and a value of 5–10 indicates highly correlated variables (Hair et al., 1998). Multicollinearity and its effects on the table's variables were examined using VIFs (9).

**Table 09: Multicollinearity tolerance and Variance Inflation Factor (VIF)**

	INFO	CR	ICT
Tolerance	0.813	0.98	0.82
VIF	1.23	1.02	1.22

Table 09 shows that the VIF value of all contracts was less than 5, which was supported by Hair et al. (1998), who recommended that there was no multicollinearity in this study.

#### 7.5 Structural model

This study used an analysis technique that uses covariance-based structural equation modeling to detect statistically significant correlations among three independent variables (such as incentives informedness, and credibility) and one dependent variable (purchase decision). AMOS 24 was used to model structural equations, and it was found that informativeness ( $\beta=0.214$ , critical value = 3.646) had a strong impact on purchase decision ( $p<0.01$ ). So, it turns out that hypotheses  $H_3$  is correct. For both incentives and credibility, there was no effect on purchase decisions ( $\beta=0.096$ ; critical value = 1.706), ( $\beta=-0.004$ , critical value = -1.00) on purchase decision. As a result, neither  $H_1$  nor  $H_2$  were considered viable alternatives. According to Cohen (1988), an  $R^2$  value of 0.02 to 0.12 should be considered weak, a value of 0.13 to 0.25 is moderate, and a value of 0.26 or higher is considered large, according to Cohen (1988). Chin (1988) proposed  $R^2$  values of 0.19, 0.33, and 0.26 for endogenous variables, with 0.19 being the least significant. According to the study's path diagram, social media marketing information and information played a role in 16 percent of Bangladeshi purchase decisions, which can be attributed to three factors: incentives, credibility, and informativeness. The findings of this study's  $R^2$  value are supported by Cohen (1988).

**Table 10: Hypothesis Testing**

Association between factors	Estimate	S.E.	C.R.	P	Comment	R-square
Purchase Decision<---Incentives	.096	.056	1.706	.088	Not Supported	0.16
Purchase Decision<---Credibility	-.004	.043	-.100	.920	Not Supported	
Purchase Decision<---Informativeness	.214	.059	3.646	***	Supported	

#### 8.0 Conclusion and recommendations

As revealed by the research, only informativeness (a component of social media marketing) has a positive influence on purchase decisions, regardless of whether the market is online or offline. In order to prepare for challenging marketing roles such as marketing managers, who serve as the organization's torchbearers, businesses should design and redesign social media marketing-related attributes such as informativeness,

credibility, incentive, and so on. Customers who are satisfied and motivated can purchase a variety of products from the marketplace in a variety of ways, whether they are shopping online or in a brick-and-mortar establishment. Finally, we propose that authorities implement an incentive package to improve the marketplace and ensure that the product is delivered to customers and those who can purchase it within a reasonable time frame. An incentive package of this nature should encourage both customers and sellers to purchase or sell the many products that are aligned with the organization's strategic objectives. Because of this, companies that want to include a product-mix incentive in their compensation plan to encourage buyers or sellers to sell a greater variety of the company's products or services should reward those who do so with a higher bonus than those who do not.

### **9.0 Limitations and expanded scope**

We acknowledge that there are some limitations to this study. For starters, there were only 200 respondents, which may not be enough to conduct a thorough statistical analysis of the results. For the purposes of this study, we only looked at three independent constructs: informativeness, credibility, and incentive, in order to determine which constructs are relevant to perfect purchase decisions for both the buyer and the seller, respectively. A large number of other structures could be found on the outskirts.

### **10.0 References**

Adetunji, R. R., & Mohmad Yazam, S. S. N. (2012, March). Assessing audiences' satisfaction of advertising digital-billboard: AU & G theoretical perspective. In 2nd International Conference on arts, social sciences & technology.

Alsamydai, M. J., & Khasawneh, M. H. (2013). Antecedents and consequences of E-Jordanian consumer behavior regarding Facebook advertising. *International Journal of Business Management Research*, 3(4), 41-59.

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.

Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological bulletin*, 107(2), 238.

Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern methods for business research*, 295(2), 295-336.

Chowdhury, H. K., Parvin, N., Weitenberner, C. and Becker, M. (2010). Consumer attitude towards mobile advertising in an emerging market: An empirical study. *Marketing*, 12, 206–216.

Chowdhury, M. H. (2016). Impact of Facebook on online advertisement: A study on Bangladeshi users. *Scholar Journal of Business and Social Science*, 2(1), 1-6.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Lawrence Erlbaum Associates. Hillsdale, NJ, 20-26.

Creswell, J. W., Clark, V. L., Guttman, M. L. and Hanson, E. E. (2003). *Advanced Mixed Methods Research Design*. In: Tashakkon, A and Teddlie, C. *Handbook of Mixed Methods in social and Social and Behavioral Research*. Thousand Oaks, CA Sage, 209-240.

Drossos, D., Giaglis, G. M., Lekakos, G., Kokkinaki, F., & Stavraki, M. G. (2007). Determinants of effective SMS advertising: An experimental study. *Journal of Interactive advertising*, 7(2), 16-27.

Ducoffe, R. (1996). Advertising value and advertising on the web. *Journal of Advertising Research* 36(5), 21–35.

Field, A. (2000). *Discovering Statistics Using SPSS for Windows*. Sage Publications: Thousand Oaks, London/New Delhi.

- Fornell, C. and Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 382-388.
- Gangadharbatla, H., Daugherty, T. (2013). Advertising Versus Product Placements: How consumers access the value of each. *Journal of Current Issues in Advertisement*. 34, 21–38.
- Gao, Y. and Wu, X. (2010). A cognitive model of trust in e-commerce: Evidence from a field study in China. *Journal of Applied Business Research*, 26(1), 37-44.
- Hair, J. F. J., Anderson, R. E., Tatham, R. L., Black, W. C. (1998). *Multivariate Data Analysis* (5<sup>th</sup> Edition). Prentice Hall: Upper Saddle River, New Jersey, USA.
- Hair, J. F., Black, W. C, Babin, B. J. and Anderson, R. E. (2014). *Multivariate Data Analysis*. Pearson Education Limited: California, USA.
- Hair, J., F. Jr., Black, W. C., Babin, B. J. and Anderson, R. E. (2010). *Multivariate Data Analysis: A Global Perspective* (7<sup>th</sup> Edition). Pearson Prentice Hall: New Jersey, USA.
- Hair, J.F., Anderson, R.E., Tatham, R.L. and Black, W.C. (1998). *Multivariate Data Analysis* (5<sup>th</sup> Eds.), Prentice Hall, New Jersey.
- Hennig-Thurau, T., Hofacker, C. F., & Bloching, B. (2013). Marketing the pinball way: Understanding how social media change the generation of value for consumers and companies. *Journal of interactive marketing*, 27(4), 237-241.
- Henseler, J., C. M. Ringle, and M. Sarstedt (2015). A New Criterion for Assessing Discriminant Validity in Variance-based Structural Equation Modeling, *Journal of the Academy of Marketing Science*, 43 (1), 115-135.
- Henseler, J., Ringle, C. M. and Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. *Advances in International Marketing*, 20, 277-319.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, 6(1), 1-55.
- Jung, N. Y., & Seock, Y. K. (2016). The impact of corporate reputation on brand attitude and purchase intention. *Fashion and Textiles*, 3(1), 1-15.
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business horizons*, 53(1), 59-68.
- Kim, Y. and Han, J. (2014). Why smartphone advertising attracts customers: A model of web advertising, flow, and personalization. *Computers in Human Behavior*, 33, 256–269.
- Kumar, V., & Gupta, S. (2016). Conceptualizing the evolution and future of advertising. *Journal of advertising*, 45(3), 302-317.
- Lin, F-H. and Hung, Y.-F. (2009). The value of and attitude toward sponsored links for Internet Information Searchers. *Journal of Electronic Commerce Research*, 10, 235–251.
- Magasic, M. (2016). The 'Selfie Gaze' and ' Social Media Pilgrimage': Two Frames for Conceptualizing the Experience of social media Using Tourists. In *Proceedings of the International Conference on Information and Communication Technologies in Tourism 2016* (pp. 173-182).
- Marsh, H.W. and 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*, Vol. 97, No. 3, pp. 562-582.
- Martins, J., Costa, C., Oliveira, T., Gonçalves, R. and Branco, F. (2019). How smartphone advertising influences consumers' purchase intention. *Journal of Business Research*, 94, 378-387

Muzaffar, F. and Kamran, S. (2011). SMS Advertising: Youth attitude towards perceived informativeness, irritation and credibility. *Interdisciplinary Journal of Contemporary Research in Business*, 3, 218-230.

Ott, H. K., Vafeiadis, M., Kumble, S. and Waddell, T. F. (2016). Effect of message interactivity on product attitudes and purchase intentions. *Journal of Promotional Management*, 22, 89–106.

Saunders, M., Lewis, P. and Thornhill, A. (2009). *Research Methods for Business Students* (5<sup>th</sup> Edition), Prentice Hall: Harlow, UK.

Sebastian, L. (2014). The impact of social media on consumer behavior towards travel planning. Working Paper, National Chengchi University, South Korea.

Siali, F., Jiayi, P., Shakur, M. M. A., & Ya'kob, S. A. (2019). Relationship between brand equity and consumer purchase decision. *International Journal of Service Management and Sustainability*, 1(1), 58–75.

Solomon, M., Bamossy, G., Askegaard, S. and Hogg, M. (2010). *Consumer Buying Behavior: An European Perspective* (4th Edition), Financial Times Press: London.

Sposito, V. A., Hand, M. L., & Skarpness, B. (1983). On the efficiency of using the sample kurtosis in selecting optimal lpestimators. *Communications in Statistics-simulation and Computation*, 12(3), 265–272.

Tsang, M., Ho, S. and Liang, T. (2004). Consumer attitudes toward mobile advertising: An empirical study. *International Journal of Electronic Commerce*, 8(3), 65–78. Available at: <http://dx.doi.org/10.1080/10864415.2004.11044301>. Accessed on: 1 September, 2019.

Van der Waldt, D. la R., Rebello, T. and Brown, W. J. (2009). Attitudes of young consumers towards SMS advertising. *African Journal of Business Management*, 3, 441-444. Accessed on: 1 September, 2019.

Varnali, K., Yilmaz, C. and Toker, A. (2012). Predictors of attitudinal and behavioral outcomes in mobile advertising: A field experiment. *Electronic Commerce Research and Applications*, 11(6), 570–581. Available at: <http://dx.doi.org/10.1016/j.elerap.2012.08.002>. Accessed on: 1 September, 2019.

Verma, R., Stock, D. and McCarthy, L. (2012). Customer Preferences for online, social media and mobile innovations in the hospitality industry. *Cornell Hospital Quarterly*, 53, 183–186.

Wang, P. and Wen, M-J. (2017). Personalization, privacy and attitudes towards online advertising. *Decision Science Letters*, 22, 1-12.

Yong, K., & Hassan, R. A. (2019). The relationships between social media marketing and entrepreneurial success: A conceptual study on homestay business in Sabah, Malaysia. *Review of Integrative Business and Economics Research*, 8, 25–33.