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## ANTECEDENTS OF CONSUMERS' CONTINUOUS INTENTION ON ONLINE PURCHASE: AN EXTENSION OF TAM MODEL



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### ABSTRACT

The purpose of this study is to detect and analyze the factors affecting consumers' attitudes toward online shopping and examine the antecedent's customer continues intentions to purchase on the online platforms. It also aims to extend and validate the Technology Acceptance Model (TAM) framework in continuous online purchase behavior. The Proposed Model incorporates sevens antecedents (Behavioral factors, Technological Factors, Market Offerings, promotional Factors, attitudes towards online purchase, system effectiveness, and online shopping acceptance). The research employed structured survey questionnaires using 7-scale Likert points. SPSS version 22.0 was used to test the hypothesis and correlation among the factors. The findings indicate that variables like behavioral factors (trust, product attribute, service attribute), technological factors (result demonstration, perceived website reputation), promotions (advertisement, social media, electronic word of mouth), and market offerings (core value) are positively related to attitudes towards online purchase which is positively related to system effectiveness. Both attitudes towards the online purchase and system effectiveness determine the continuous intention to purchase online. This piece of work provides the conceptual framework of continuity of online purchase that can contribute to an academic perspective, and marketers can adopt strategies by understanding the antecedents of online shopping behavior.

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### INTRODUCTION

Shopping is an unavoidable aspect of one's life in the twenty-first century, as human needs are insatiable, and it can be done in the form of traditional/retail shopping or online shopping. Both means offer distinct advantages, but the value of saving time has led customers, particularly the young, to prefer online shopping. In this 21<sup>st</sup> century, the end-users are progressively habituated with the Internet to buy products or services. It has become a rapidly growing global trend (Kumar, Anand, & Mutha, 2016), and the upsurge of ICT, advanced technology, and widespread internet access has resulted in massive growth (Johnson, 2015). To survive in the competitive business world, organizations must adapt to the changes in technology to come across consumers' online and offline needs (Amoroso & Hunsinger, 2009). Technology has turned into a method that puts the development to access information and current data or information for improvement and efficiency (Durodolu, 2006). Through the internet, consumers become competent to purchase their preferred products or services through internet (Bourlakis et al., 2008). Therefore, online purchases have become popular for their multiple facilities (ACMA & Sultana, 2015). In very simple words, online purchase is the procedure of purchasing products or services from sellers-wholesalers or retailers over the internet (Praveenkumar, 2015). A significant, influential theoretical model, Technology Acceptance Model (TAM), has a significant contribution towards the formation of behavioral intention towards the usages of technology

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which has contributed to the genuine adaption of the method (Davis et al., 1989). Two vital factors of the original TAM model perceived usefulness and ease of use, have shown a more excellent significant position for forming consumers' attitudes (Alkasassbeh, 2014). TAM is the cooperative model for determining acceptance of technology by consumers (Durodolu, 2006).

We contend that the TAM, in its current form, cannot fully explain online consumer behavior whether they will purchase continuously from the same platform. Because the purchase decision is typically taken by the buyer whereas the technology uses decisions reserved by e-commerce organization policy (Fayad & Paper, 2015). So, it somewhat online shopping somewhat depends on consumer behavioral factors and technological usefulness and ease. Besides, the rise of technology uses, especially after covid-19, more and more companies are offering their services online and initiating lots of promotional activities (Jahan et al., 2020). Thus the aim of this study is to find out the antecedent of consumer behavior of continuous online purchase with the extension of the Technology Acceptance Model (TAM) in terms of behavioral, technological, market offerings, and promotional activities.

## LITERATURE REVIEW

### Online Purchase

At present, online purchase is becoming an integral part of our lifestyle (Choudhury & Dey, 2014). It is achieving popularity among the young generation for the reason of comfort, time-saving, and availability (Singh & Sailo, 2013). In simple words, online purchase has defined as the act of buying goods or services with the help of the internet (Levin et al., 2005). So online shopping refers to purchasing products or services over the internet by using a web browser directly from the online shopper in spite of going to shops or stores (Manikandan & Asokan, 2017). Online purchasing is considered comparatively easier than traditional shopping by recognizing numerous facilities of purchasing over the internet (Gupta, 2015).

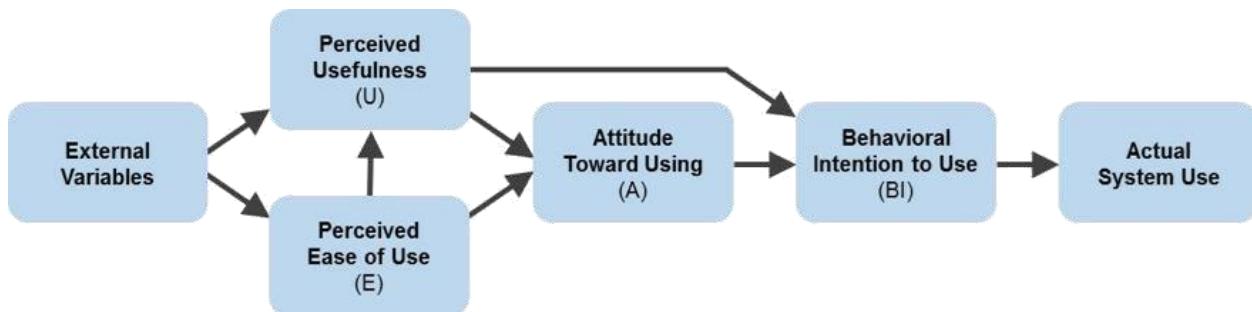


Figure 1. TAM Model (Davis, 1986)

In order to unravel the conduct of information system (IS) exercise, an effective theoretical model was constructed by (Davis, 1985) remarked as the Technology Acceptance Model (TAM) ( figure-1) which was an adjustment with a model named Theory of Reasoned Action (TRA) (Davis, 1985) Technology Acceptance Model (TAM) was fabricated on the TRA for the purpose of clearly identifying a pair of the significant element which were perceived ease of use and perceived usefulness whereas the foremost components of the model TAM were perceived ease of use, perceived usefulness that mediated attitude of end-users towards technology in which perceived usefulness in conjunction with attitude towards usage computer-based technology contributed to the formation of behavioral intention towards the usages of technology which contributed to the genuine adaption of method (Davis et al., 1989). The technology acceptance model which is constructed based on the theory of reason action (TRA) takes two prominent ingredients from the original TAM are- perceived ease of use and perceived ease of use which together have a successful influence on consumers' attitudes (Cheung et al., 2008).

### Factors influencing consumers' online purchase acceptance

The use of the internet in Bangladesh is rapidly increasing (SD Asia Desk, 2019). According to the BTRC (Bangladesh Telecommunication Regulatory Commission), at the end of January 2019, the number of internet users reached 91.421 million, while mobile internet users were 85.630 million, and the number of Internet Subscribers increased to 96.166 million, with mobile internet users accounting for 90.409 million (Bangladesh Telecommunication Regulatory Commission, 2019). According to (Rahman et al., 2018), consumers prefer online shopping due to time savings and the availability of a wide range of products or services. The study concentrated on home delivery as a payment method, as well as cash incentives and delivery methods. Another study considered eight different factors, including security, after-sales service, time consumption, return policy, quality goods or services, website design, experiences related to previous activities, and online Vendors' reputation. This study was primarily concerned with the quality of goods or services (Datta & Acharjee, 2018). Another study concentrated on the qualities of products or services. It included, in addition to product or service qualities, availability, convenience, customer satisfaction, security and privacy, quickness, striking, elasticity, spatial benefit, and awareness (Vikash & Kumar, 2017).

In contrast, (Mahmud & Hossain, 2014; Hossain et al., 2019a; Hossain et al., 2019b; Hossain et al., 2020; Islam et al., 2021; ) asserted that four factors, including website reliability, website design, customer services, and website competencies, have a positive influence on customer attitudes toward online shopping. As per the findings of this study, e-marketers should place a premium on dependability and security. According to one study, customer satisfaction with online

shopping is related to the price of customer satisfaction and the quality of the product or service. This study advocated for increased brand awareness and a more flexible order handling process (Kasem & Shamima, 2014).

Shergill and Chen (2005) asserted that four factors – website design, website reliability, website customer service, and website security – had an impact on consumer perception of online shopping. Alkasassbeh (2014) identified four additional factors – perceived usefulness, ease of use, product involvement, and perceived risk – that have a significant influence on consumer attitudes toward online shopping. A study was conducted in Malaysia on perceived risk, perceived ease of use, and perceived usefulness for measuring the effectiveness of online shopping. Subjective norms had a negative impact on perceived usefulness and ease of use, whereas perceived purchase experience had a positive impact on perceived risk (Al-gamal & Siddiq, 2018). Another study looked at a variety of factors that influence customer attitudes toward online shopping. These factors included website design or features, convenience, privacy, and time savings. It also focused on lower prices, discounts, previous customer reviews, and product quality (Dani, 2017). Rajesh and Purushothamab (2013) incorporated with offers and discounts, product variety availability, free home delivery, and website user friendliness (Chowdhury & Chowdhury, 2017) emphasized several factors, including ease of product ordering and delivery convenience, monetary transaction security, available product information, and a wide range of product categories and quality control, convenience and after-sales service, communication, and problem-solving ability. Shopping convenience and after-sales service were discovered to be highly sensitive factors. It is discovered that consumer perceived value, interpersonal influence by peers and norms, and a favorable attitude toward using e-deals all have a positive relationship with consumer attitude toward e-deals, whereas price perception propensities have a negative relationship with consumer attitude toward electronic deals (Cheah et al., 2015).

## **Conceptual Framework**

### ***Behavioral Factors –***

One of the most significant factors is behavioral factors which are taken into account as a measurable extent considered by a person with an enhancement of her tasks completed in a structure (Davis et al., 1989). Behavioral factors are related to personality and situation. Under behavioral factors, perceived usefulness, perceived ease of use, and trust are considered important catalysts. A study recognized that perceived usefulness achieves significant attention as an influential factor on online shopping intention by consumers by consumers' attitude towards the online purchase (Tong, 2010). Davis (1986) recognized that perceived ease of use (PEOU) has a direct influence on perceived usefulness (PU). Trust is not only emotional action but also a logical deed which is a special situation where one exposes his vulnerabilities to individuals but generating a belief that they will keep him at trusty position (Hoffman, 2002). It gets attention as an influential factor to reduce risk as well as uncertainty (Ha & Stoel, 2009). The suppliers at the trusty position can accelerate the expectancy of users (Gefen et al., 2003).

**Technological Factors -** Online purchasing is significantly influenced by accessibility, whereas nowadays most online shoppers are concerned with accessibility-friendly factors such as convenience, time savings, or ease of payment system, all of which have an impact on consumers' attitudes toward online shopping (Warrington, 2019).

**Market Offerings -** For the purpose of constructing a combination of services for a specific product, the significant central attributes have to be determined to serve customers better (Levin, et al., 2005). A study states that three significant attributes of products which are features, performance, and advantages have a great influence on purchasing intention of consumers over the internet (Musa et al., 2015). The attributes of a product have an important effect on the formation of consumers' attitudes towards purchasing (Shamsher, 2014).

**Promotional Factors -** Advertisement which is an important promotional tool has a special credit to influence consumers' attitude towards purchasing products wherever offline or over online (Esch et al., 2018). Social media and some other digital communication know-how like Facebook have a strong power to appear purchasing both online and offline by the usages of digital communication tools (Pantano & Gandini, 2018). Social media is denoted as services over online through which the users of its can be able to not only generate but also share multiple tytypef contents. As per that the users of social media have be classified into two distinct division which are social media observer (consumer) and the entities who post on social media (Schlosser, 2005). Social media sacrifices a great opportunity to online marketers to engage with them (Doorn et al., 2010).

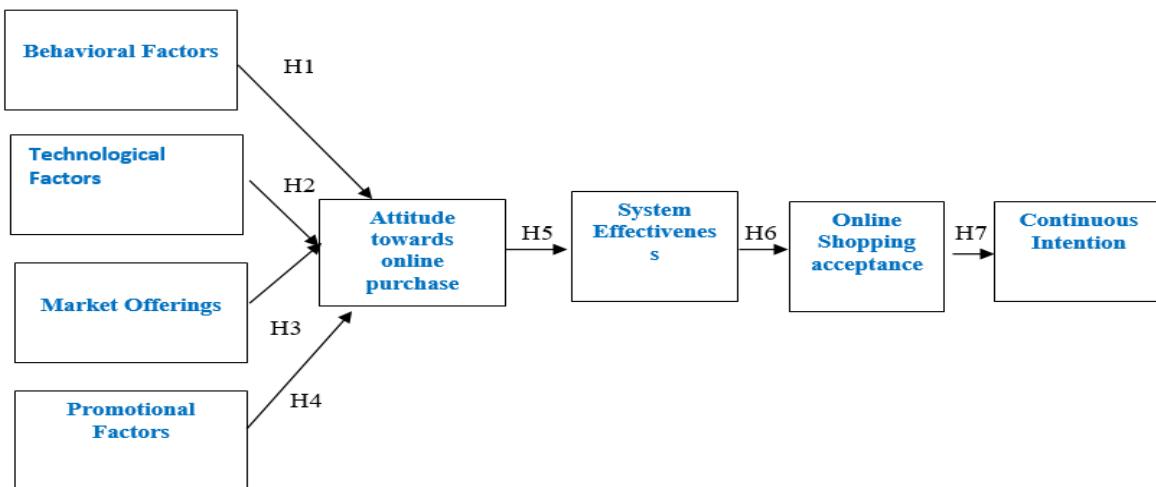
With the help of social media, different organizations are now providing discount offers through bKash payment so social media is considered as the important factor to understanding customers' pre-purchase conception (Jahan et al., 2020). Understanding the opinion of consumers, electronic word of mouth is considered as an effective way (Hennig-Thurau et al., 2004) than offline because of its convenience and big opportunity to access (Chatterjee, 2001). It is essentially supportive to take decisions through the analysis of reviews by consumers from massive people at convenience because of its accessibility.

**Attitude towards Online Purchase-** Simply attitude is stated as an evaluation of an idea by individuals (Peter & Olson, 2010). It is more significant for internet users who are conscious of their timing. But in some cases it has seen that internet users are rarely going through web pages in detail. Users want to find information that they want quickly. So, therefore the most relevant information can be known online (Amoroso & Hunsinger, 2009).

**System effectiveness** -Ha and Stoel (2009) has expressed that system effectiveness has become an essential weapon for the organization. Because system effectiveness helps companies to differentiate from other competitors. Manikandan and Asokan (2017) has suggested that system effectiveness has a positive relationship to cost reductions, profitability, customer satisfaction, customer retention, and positive word of mouth.

**Online Shopping Acceptance**- Consumers accept online shopping while the effectiveness of the system remains in an appropriate position by affecting technology acceptance and adaptation (Amoroso & Hunsinger, 2009).

**Continuous Intention**- Transaction intention is denoted as the way of engagement by consumers in the relationship of online exchange with the vendors of online for the purpose of maintaining business relationships among themselves, sharing of business data, and also performing business transactions that can form the success story for businesses (Zwass, 1998).



**Figure 2: Conceptual Framework**  
Source: Author compilation

## METHODOLOGY

The Extended Technology Acceptance Model was examined by using data that were collected from the existing customers who purchase online in Bangladesh. 200 Data were collected from the study area was Bangladesh, mainly the city area (Dhaka, Gopalganj, Chattogram, Khulna). Data were collected through a structured questionnaire comprising two sections. In the first section, the respondents were asked about their demographic characteristics (gender, age, educational background, occupation Income). In the second section, data were collected on the survey questionnaires comprising factors affecting the online purchase. The Items were measured by 7 points on Likert scales (Strongly Agree to Strongly Disagree). SPSS version 22.0 was used to test the hypothesis and correlation among the factors.

### Data Analysis through Hypotheses Testing:

The demographic profile of respondents (Table 1) revealed that the majority of participants were male (79%). In terms of age, most of the respondents were from the age group 41-50 (37.4%) and 31-40 (28.5%). In terms of Education, most of the respondents received minimum graduation degrees (66%). Besides, about 55% of the respondents were private service holders and 25.7% were government service holders. Furthermore, the majority of the respondents earned between 30,000-60,000 (64%).

Table 1. Demographic Distribution

Items	Category	Overall Distribution (%) N=200
Gender	Male	21.0
	Female	79.0
Age	18-30	19.6
	31-40	28.5
	41-50	37.4
	50-60	13.5
	Above 60	9.00
Educational Background	Secondary Education	15.0
	Higher Secondary	19.0
	Graduate	43.0
	Post-Graduate	23.0
Occupation	Govt. Service	25.7
	private service	55.5

	Businessman	5.00
	Student	8.30
	Unemployed	5.50
<b>Income</b>	Less than 20,000	17.0
	20,000-30,000	11.0
	30,000-40,000	23.0
	40000-50000	27.0
	50000-60000	14.0
	Above 60000	8.00

### Hypothesis- 1:

H0: behavioral factors have a positive impact on attitude towards online purchase

H1: behavioral factors have no positive impact on attitude towards online purchase

### Regression Analysis for Hypothesis 1

Table 2. Regression Analysis for Hypothesis 1 (estimated)

	Model	R	R	Adjusted	Strength of	Sid.
			Square	R Square	Association	Error
Behavioral Factors and		.961	.924	.920	Very strong	.17177
Attitude	towards					
online purchase						

The Pearson correlation (r) of .961 indicates that behavioral characteristics and attitudes regarding online buying have a positive and extremely significant association, implying that customers can save time by using technology while shopping online. The adjusted value of R2 is .920, which implies that 92 percent variance of independent variables can be perfect, and the value of R2 is .924 which means that 92 percent variance of dependent variables may be modified with respect to the independent variables.

So, this study explains that behavioral factors influence attitudes toward online shopping.

### Hypotheses Testing: H1

The variance analysis in this study is provided in the table below:

Table 3. Hypotheses Testing by ANOVA: H1 (estimated)

Model		Sum of Squares	ANOVA <sup>a</sup>		F	Sig.
			df	Mean Square		
1	Regression	68.074	9	7.564	256.344	.000 <sup>b</sup>
	Residual	5.606	190	.030		
	Total	73.680	199			

a. Dependent Variable: The idea of buying products online is a good idea

b. Predictors: (Constant), Sometimes I get offended messages from online pages where I share my personal details for purchase products, I am able to purchase wanted products which are hard to purchase at offline stores, Online purchase follows convenience way in terms of the payment system, Information concerning my mobile transactions information (bkash number, debit or credit card number, phone number) can be tampered with by others, Online purchase saves my time, It is easy to place orders through websites, It is easy to find out wanted products within shortest possible time rather find from offline, I think websites or pages will not sell my personal information for commercial use, Online purchase helps to provide up to date information regarding recent trends of fashion.

At the 0.05 level of significance, the F value is 68.074. The F distribution value is 256.344, and the derived critical value is 1.929. Because of F distribution value exceeds the expected critical value ( $1.929 < 256.344$ ), the null hypothesis is rejected. As an outcome, behavioral factors are influencing attitudes about online purchases in a positive way.

So, it is proved that behavioral factors have positively affected attitude towards online purchase.

## Hypotheses Testing H2

H0: technological factors have positive impact on attitude towards online purchase.

H1: technological factors have not positive impact on attitude towards online purchase.

### Regression Analysis for Hypothesis 2

Table 4. Regression Analysis for Hypothesis 2 (estimated)

Model		R	R Square	Adjusted R Square	Strength of Association	Sid. Error
Technological and Attitude	Factors towards online purchase	.941	.885	.881	Very strong	.20993

The Pearson correlation (r) of .941 indicates that technological factors and attitudes about online buying have a positive and incredibly strong association, implying that customers can save time by purchasing online using technology. When R2 is equal to .885, it implies that 89 percent of the variance of dependent variables can be modified in relation to the independent factors, and when R2 is equal to .881, it means that 88 percent of the variance of independent variables can be perfect.

As a result, this research illustrates how technological elements affect people's attitudes toward online buying.

Table 5. Hypotheses testing by ANOVA: H2 (estimated)

Model		ANOVA <sup>a</sup>		F	Sig.
		Sum of Squares	df		
1	Regression	65.219	7	9.317	211.420
	Residual	8.461	192	.044	
	Total	73.680	199		

a. Dependent Variable: The idea of buying products from online is a good idea

b. Predictors: (Constant), Online shopping sites gives Promotional price or allowance on bulk amount of purchase, I purchase from that sites that are user friendly, Delivery system for online purchase (Home or office), I purchase from that websites that are well designed, this website is a large company that everyone recognizes it so I purchase from this website, this website is distinguished so I purchase from this website, Post purchase service expectation from marketer

The F value obtained from the ANOVA table is 65.219 at a significance level of 0.05. The calculated critical value is 2.058, while the F distribution value is 211.420. As a result, the null hypothesis is rejected because the F distribution value exceeds the predicted critical value (2.058<211.420).

So, technological variables have a beneficial impact on attitudes regarding online purchases.

## Hypotheses Testing H3

H0: market offering factors have positive impact on attitude towards online purchase.

H3: market offering factors have not positive impact on attitude towards online purchase

### Regression Analysis for Hypothesis 3

Table 6. Regression Analysis Hypotheses Testing H3 (estimated)

Model	R	R Square	Adjusted R Square	R	Strength of Association	of	Sid. Error
Market Offerings Factors and Attitudes towards online purchase	.729	.532	.525	Very strong			.41939

The Pearson correlation (r) is in this case. 729 indicates that the market offering aspects and attitudes regarding online buying have a favorable and fairly strong association, implying that customers can save time by purchasing online using technology. The adjusted value of R2 is, which suggests that 53 percent of the variance of dependent variables can be modified with respect to the independent variables. 525 indicates that 52 percent of independent variables' variance can be perfect. As a result of this research, market offering aspects have an impact on attitudes regarding online purchasing.

The F value obtained from the ANOVA table is 65.219 at a significance level of 0.05. The determined critical value is 2.058, while the F distribution value is 211.420. So, the null hypothesis is rejected because the F distribution value exceeds the predicted critical value (2.058<211.420). As a result, technological variables have a beneficial impact on attitudes regarding online purchases.

### Hypotheses testing: H3

The variance analysis in this study is provided in the table below:

Table 7. Hypotheses testing by ANOVA: H3 (estimated)

Model		ANOVA <sup>a</sup>				Sig.
		Sum of Squares	df	Mean Square	F	
1	Regression	39.206	3	13.069	74.299	.000 <sup>b</sup>
	Residual	34.474	196	.176		
	Total	73.680	199			

a. Dependent Variable: The idea of buying products from online is a good idea

b. Predictors: (Constant), the site is easy to navigate wanted, Product discount or combo product attract much, Site is convenient to search any product.

The F value obtained from the ANOVA table is 39.206 at a significance level of 0.05. The determined critical value is 2.651, while the F distribution value is 74.299. As a result, the null hypothesis is rejected since the F distribution value exceeds the predicted critical value (2.651<74.299). So, Market Offering Factors have been shown to have a beneficial impact on attitudes regarding online purchases.

### Hypotheses Testing H4

H0: promotional factors have positive impact on attitude towards online purchase.

H4: promotional factors have not positive impact on attitude towards online purchase.

### Regression Analysis for Hypothesis 4

Table 8. Regression Analysis Hypotheses Testing H4.

Model	R	R Square	Adjusted R Square	Strength of Association	Sid. Error
Promotional Factors and Attitude towards online purchase	.903	.816	.812	Very strong	.26353

### Hypotheses testing: H4

The variance analysis in this study is provided in the table below:

Table 9. Hypothesis testing by ANOVA: H 4 (estimated)

Model		ANOVA <sup>a</sup>				Sig.
		Sum of Squares	df	Mean Square	F	
1	Regression	60.138	4	15.034	216.488	.000 <sup>b</sup>
	Residual	13.542	195	.069		
	Total	73.680	199			

a. Dependent Variable: The idea of buying products from online is a good idea

b. Predictors: (Constant), I am influenced to buy after watching positive review, any advertisement (Video, audio, writing etc.) which influence you to buy the product from online, I purchase product by influenced from my friends and peer group, you use the app to purchase the product which influence you most.

The F value obtained from the ANOVA table is 60.138 at a significance level of 0.05. Thus, the computed critical value is 2.418 and the F distribution value is 216.488. As a result, the null hypothesis is rejected because the F distribution value exceeds the predicted critical value (2.418<216.488). Thus, F promotional variables have been shown to have a beneficial impact on attitudes regarding online purchases.

### Hypothesis Testing H5

H0: attitude towards online purchase have positive impact on System Effectiveness

H5: attitude towards online purchase have not positive impact on System Effectiveness

Table 10. Regression Analysis Hypotheses Testing H6

Model	R	R Square	Adjusted R Square	Strength of Association	Sid. Error
Attitude towards online purchase and system effectiveness	.838	.701	.700	Very strong	.34641

The Pearson correlation (r) is in this case. It was determined that the promotional aspects and attitudes regarding online buying had a favorable and fairly strong link, implying that customers can save time by purchasing online using technology. The adjusted value of R2 is, which suggests that 70 percent of the variation of dependent variables can be modified with respect to the independent variables. .700 indicates that the variation of independent variables can be reduced to 70%. As a result, this study illustrates one's attitude regarding online purchases affects the effectiveness of the system.

#### Hypotheses testing by ANOVA: H5

The variance analysis in this study is provided in the table below:

Table 11. Hypotheses testing by ANOVA: H5 (estimated)

		ANOVA <sup>a</sup>				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	55.835	1	55.835	465.298	.000 <sup>b</sup>
	Residual	23.760	198	.120		
	Total	79.595	199			

a. Dependent Variable: Buying from online websites or pages is very effective

b. Predictors: (Constant), The idea of buying products from online is a good idea

From the ANOVA table the researcher get F value is 55.835 at the level of significant 0.05. Thus, the F distribution value is 465.298 and calculated critical value is 3.889. Therefore, the F distribution value is larger than calculated critical value (3.889<465.298) it means that the null hypothesis is rejected. So, it is proved that attitude towards online purchase have positively affect system effectiveness.

#### Hypotheses Testing H6

H0: System Effectiveness has positive impact on Online Shopping Acceptance.

H6: System Effectiveness has not positive impact on Online Shopping Acceptance.

#### Regression Analysis for Hypothesis 6

Table 12. Regression Analysis Hypotheses Testing H6

Model	R	R Square	Adjusted R Square	Strength of Association	Sid. Error
System Effectiveness and Online Sopping Acceptance	.794	.630	.628	Very strong	.37517

The Pearson correlation (r) is, in this case, .794 showed that promotional elements and attitudes toward online buying had a good and highly strong association, implying that customers can save time by purchasing online using technology. R2 has a value of. The corrected value of R2 is .630, which suggests that 63 percent of the variance of dependent variables can be modified in relation to the independent variables. 628 means that the variance of independent variables can be perfect at 63 percent. So, according to this research, System Effectiveness has an impact on Online Shopping Acceptance.

#### Hypotheses testing: H6

Table 13. Hypotheses testing by ANOVA: H6 (estimated)

		ANOVA <sup>a</sup>				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47.526	1	47.526	337.664	.000 <sup>b</sup>
	Residual	27.869	198	.141		
	Total	75.395	199			

a. Dependent Variable: I intend to use websites or pages for online shopping heavily

b. Predictors: (Constant), Buying from online websites or pages is very effective

The F value obtained from the ANOVA table is 47.526 at a significance level of 0.05. The determined critical value is 3.889, while the F distribution value is 337.664. As a result, the null hypothesis is rejected because the F distribution value exceeds the predicted critical value (3.889337.364). As a nutshell, it has been established that system efficacy has a favorable impact on online shopping adoption.

### Hypotheses Testing H7

H0: Online Shopping Acceptance have positive impact on Continuance Intention.

H7: Online Shopping Acceptance have not positive impact on Continuance Intention.

### Regression Analysis for Hypothesis 7

Table 14. Regression Analysis Hypotheses Testing H7 (estimated)

Model	R	R Square	Adjusted R Square	Strength of Association	Sid. Error
Online Sopping Acceptance and continuance Intention	.947	.897	.896	Very strong	.19792

The Pearson correlation (r) is in this case. 947 indicates that the Online Shopping Acceptance and Continuance Intention have a favorable association, implying that customers can save time by purchasing online using technology. R2 has a value of. The modified value of R2 is and the dependent variables' variance can be modified by 90% with regard to the independent variables. It means that independent variables with a variation of 90% can be perfect. As a result, this study demonstrates online shopping acceptance affects retention intentions.

### Hypotheses testing: H7

Table 15. Hypotheses testing by ANOVA: H7 (estimated)

The variance analysis in this study is provided in the table below:

Model		ANOVA <sup>a</sup>				
		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	67.399	1	67.399	1720.616	.000 <sup>b</sup>
	Residual	7.756	198	.039		
	Total	75.155	199			

a. Dependent Variable: I will continuously purchase from websites if previous experience is pleasant

b. Predictors: (Constant), I intend to use websites or pages for online shopping heavily

The F value obtained from the ANOVA table is 47.526 at a significance level of 0.05. The determined critical value is 3.889, while the F distribution value is 337.664. As a result, the null hypothesis is rejected because the F distribution value exceeds the predicted critical value (3.889337.364). So, it has been found that the intention to continue purchasing online has a significant impact on online shopping acceptance.

Table 16. Correlation and regression analysis for hypothesis testing and Hypothesis testing

Model	R	R Square	Adjusted R Square	Strength of Association	Sid. Error
Behavioral Factors and Attitudes towards online purchase	.961	.924	.920	Very strong	.17177
Technological Factors and Attitudes towards online purchase	.941	.885	.881	Very strong	.20993
Market Offerings Factors and Attitudes towards online purchase	.729	.532	.525	Very strong	.41939
Promotional Factors and Attitudes towards online purchase	.903	.816	.812	Very strong	.26353
Attitude towards the online purchase and system effectiveness	.838	.701	.700	Very strong	.34641
System Effectiveness and Online Sopping Acceptance	.794	.630	.628	Very strong	.37517
Online Shopping Acceptance and continuance Intention	.947	.897	.896	Very strong	.19792

Table 17. Hypothesis Testing ( $\alpha = 0.05$ , df = 198)

Hypotheses	b	F statistics	Critical value	Sig	Results	Remarks
H1	.588	256.344	1.929	.000	256.344 > 1.929	Rejected
H2	.334	211.420	2.058	.000	211.420 > 2.058	Rejected
H3	.569	74.299	2.651	.000	74.299 > 2.651	Rejected

<b>H4</b>	.854	216.488	2.418	000	216.488 > 2.418	Rejected
<b>H5</b>	.572	465.298	3.889	000	465.298 > 3.889	Rejected
<b>H6</b>	.503	337.664	3.889	000	337.664 > 3.889	Rejected
<b>H7</b>	.232	720.616	3.889	000	720.616 > 3.889	Rejected

In this above analysis, the author observed that the H1 is rejected which implies that behavioral factors have positive impacts on attitude toward online shopping. Next, H2 is also rejected which means that technological factors have positive impact on attitude toward online shopping. After that, H3 is also rejected which implies that market offering factors have positive impacts on attitude toward online shopping. The researcher observed that H4 is also rejected which means that promotional factors have positive impacts on attitude toward online shopping. H5 is also rejected which means that attitude toward online shopping has positive impact on system effectiveness, it is observed that the H6 is also rejected meaning that system effectiveness has a positive impact on Online Shopping Acceptance. Finally, the H7 is rejected which means that Online Shopping Acceptance has a positive impact on Continuance Intention (Khalil et al., 2020; Nahar et al., 2021).

## CONCLUSION

From this study, in the Extended TAM model, behavioral factors, technological factors, market offering factors, and promotional factors are the primary step for achieving consumers' attitudes toward online purchase. If these factors are positive, it influences customers' attitude toward online purchase positively and a positive attitude toward online purchase leads toward system effectiveness. System effectiveness leads toward online shopping acceptance and finally if the online shopping is accepted by the customer toward continuous intention which means the customer will purchase again and again. The study will contribute most to extending the developed TAM model to the conduction of studies in the field of technology that will significantly assist in the future. The researcher also shows correlation and regression analysis. Moreover, the relationship between customer attitude and the TAM model are significant because behavioral factors, technological factors, market offering factors and promotional factors strongly influence continuous intention. Therefore, hypothesis H1, H2, H3, H4, H5, H6 and H7 all are supported this study. The correlation, regression and hypothesis provide that continuous intention influenced by these factors, the hypothesis testing prove that there is a positive relation between all this variables and continuous intention and null hypothesis are rejected.

For gaining success in the new area of technology, marketers should put emphasis not only offline selling but also online. For that purpose, attaining success in online market place, the vendors have to know the influential factors on technology acceptance by consumers. At this purpose, this study will help online sellers to understand these factors to be success in online business world.

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## REFERENCES

Al-gamal, E., & Siddiq, A. (2018) Consumer Perception Towards Online Advertisement-A Study with Reference to Foreign Students in Mysore. *International Journal of Innovative Research and Advanced Studies (IJIRAS)*, 5(1), 297-300.

Alkasassbeh, W. A. K. (2014). Factors affecting consumers' attitudes toward online shopping in the city of Tabuk. *European Journal of Business and Management*, 6(18), 213-222.

Amoroso, D., & Hunsinger, D. S. (2009). Analysis of the factors that influence online purchasing. *Journal of Information Systems Applied Research*, 2(1), 3.

Bourlakis, M., Papagiannidis, S., & Fox, H. (2008). E-consumer behaviour: Past, present and future trajectories of an evolving retail revolution. *International Journal of E-Business Research (IJEGR)*, 4(3), 64-76.

Chatterjee, P. (2001). Online reviews: do consumers use them. *Advances in Consumer Research*, 28, 129-133.

Cheah, I., Phau, I., & Liang, J. (2015). Factors influencing consumers' attitudes and purchase intentions of e-deals. *Marketing intelligence & planning*, 33(5), 763-783.

Cheung, C. M., Lee, M. K., & Rabjohn, N. (2008). The impact of electronic word-of-mouth: The adoption of online opinions in online customer communities. *Internet research*, 18(3), 229–247.

Choudhury, D. & Dey, A., 2014. Online Shopping Attitude among the Youth: A Study on University Students. *International Journal of Entrepreneurship and Development Studies (IJEDS)*, 2(1), 23-32.

Chowdhury, E. K., & Chowdhury, R. (2017). Online shopping in Bangladesh: a study on the motivational factors for ecommerce that influence shopper's affirmative tendency towards online shopping. *South Asian Journal of Marketing & Management Research*, 7(4), 20-35.

Dani, N. J., 2017. A Study on Consumers' Attitude Towards Online Shopping. *International Journal of Research in Management & Business Studies*, 4(3), pp. 42-46.

Datta, A., & Acharyya, M. K. (2018). Consumer's attitude towards online shopping: Factors influencing young consumers to shop online in Dhaka, Bangladesh. *International Journal of Management Studies*, 3(4), 1-13.

Davis, F. D. (1985). *A technology acceptance model for empirically testing new end-user information systems: Theory and results* (Doctoral dissertation, Massachusetts Institute of Technology).

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management science*, 35(8), 982-1003.

Durodolu, O. (2016). Technology Acceptance Model as a predictor of using information system to acquire information literacy skills. *Library Philosophy & Practice*.

Fayad, R., & Paper, D. (2015). The technology acceptance model e-commerce extension: a conceptual framework. *Procedia economics and finance*, 26, 1000-1006

Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online shopping: An integrated model. *MIS quarterly*, 51-90.

Ha, S., & Stoel, L. (2009). Consumer e-shopping acceptance: Antecedents in a technology acceptance model. *Journal of business research*, 62(5), 565-571.

Hennig-Thurau, T., Gwinner, K. P., Walsh, G., & Gremler, D. D. (2004). Electronic word-of-mouth via consumer-opinion platforms: what motivates consumers to articulate themselves on the internet. *Journal of interactive marketing*, 18(1), 38-52.

Hoffman, A. M. (2002). A conceptualization of trust in international relations. *European Journal of International Relations*, 8(3), 375-401.

Hossain, M. S., Hasan, R., Kabir, S. B., Mahbub, N. & Zayed, N. M. (2019a). Customer Participation, Value, Satisfaction, Trust and Loyalty: An Interactive and Collaborative Strategic Action. *Academy of Strategic Management Journal (ASMJ)*. 18(3), 1-7.

Hossain, M. S., Anthony, J. F., Beg, M. N. A. & Zayed, N. M. (2019b). The Consequence of Corporate Social Responsibility on Brand Equity: A Distinctive Empirical Substantiation. *Academy of Strategic Management Journal (ASMJ)*. 18(5), 1-8.

Hossain, M. S., Anthony, J. F., Beg, M. N. A., Hasan, K. B. M. R. & Zayed, N. M. (2020). Affirmative Strategic Association of Brand Image, Brand Loyalty, and Brand Equity: A Conclusive Perceptual Confirmation of the Top Management. *Academy of Strategic Management Journal (ASMJ)*. 19(2), 1-7.

Islam, M. R., Chowdhury, S. A., Rahman, S. & Zayed, N. M. (2021). An Analysis of the Detrimental Effect of COVID-19 Pandemic: A Study in Bangladesh. *Journal of Humanities, Arts and Social Science*. 5(1), 116-124.

Jahan, I., Bhuiyan, K. H., Rahman, S., Bipasha, M. S., & Zayed, N. M. (2020). Factors influencing consumers' attitude toward techno-marketing: an empirical analysis on restaurant businesses in Bangladesh. *International Journal of Management*, 11(8).

Jahan, I., Bala, T., & Bhuiyan, K. H. (2020). Determinants of Consumer's Intention to use Mobile Banking Services in Bangladesh. *Global Journal of Management and Business Research*.

Johnson, D. G. (2015). Technology with no human responsibility? *Journal of Business Ethics*, 127(4), 707-715.

Kasem, N., & Shamima, N. (2014). An assessment of the factors affecting the consumer satisfaction on online purchase in Dhaka City, Bangladesh. *European Journal of Business and Management*, 6(32), 11-24.

Kumar, D., Anand, P., & Mutha, D. (2016). A study on trust in online shopping in Pune: A comparative study between male and female shoppers. *Prerna and Mutha, Devendra, A Study on Trust in Online Shopping in Pune: A Comparative Study between Male and Female Shoppers* (February 12, 2016).

Khalil, M. I., Rasel, M. K. A., Kobra, M. K., Noor, F. & Zayed, N. M. (2020). CUSTOMERS' ATTITUDE TOWARD SMS ADVERTISING: A STRATEGIC ANALYSIS ON MOBILE PHONE OPERATORS IN BANGLADESH. *Academy of Strategic Management Journal (ASMJ)*. 19(2), 1-7.

Levin, A. M., Levin, I. P., & Weller, J. A. (2005). A multi-attribute analysis of preferences for online and offline shopping: Differences across products, consumers, and shopping stages. *Journal of Electronic Commerce Research*, 6(4), 281.

Mahmud, Q. M., & Hossain, S. (2014). Factors Influencing Customers' Attitude Towards Online Shopping: Evidence from Dhaka City. *Journal of Business*, 35(3).

Musa, H., Mohamad, M. A. B., Jabar, J., Sam, J. M., Azmi, F. R. (2015). *The Intention in Purchasing Online From Product Attributes*. s.l.:Conference: The 3rd International Conference On Technology Management And Technopreneurship, At Universiti Teknikal Malaysia Melaka.

Nahar, S., Meero, A., Rahman, A. A. A., Hasan, K. B. M.R., Islam, K. M. A., Zayed, N. M. & Alam, M. F. E. (2021). ANALYSIS ON THE MARKETING STRATEGY AND COMPETITIVE ADVANTAGE OF BANKING INDUSTRY IN BANGLADESH: AN ENTREPRENEURIAL CASE STUDY OF HSBC BANK. *Academy of Entrepreneurship Journal*. 27(4), 1-7.

Pantano, E., & Gandini, A. (2018). Shopping as a “networked experience”: an emerging framework in the retail industry. *International Journal of Retail & Distribution Management*.

Praveenkumar, S., (2015). Consumer satisfaction in online shopping. *Wide Spectrum*, 3(9), 18-25.

Rahman, M. A., Islam, M. A., Esha, B. H., Sultana, N., & Chakravorty, S. (2018). Consumer buying behavior towards online shopping: An empirical study on Dhaka city, Bangladesh. *Cogent Business & Management*, 5(1), 1514940.

Shamsher, R. (2014). Relationship between store characteristics and store loyalty: An explorative study. *International Journal of Economics and Empirical Research (IJEER)*, 2(11), 431-442.

Shergill, G. S., & Chen, Z. (2005). WEB-BASED SHOPPING: CONSUMERS'A TTITUDES TOWARDS ONLINE SHOPPING IN NEW ZEALAND. *Journal of electronic commerce research*, 6(2), 78.

Singh, A. K., & Sailo, M. (2013). Consumer behavior in online shopping: a study of Aizawl. *International Journal of Business & Management Research*, 1(3), 45-49.

Tong, X. (2010). A cross-national investigation of an extended technology acceptance model in the online shopping context. *International Journal of Retail & Distribution Management*.

Uddin, M. J., & Sultana, T. (2015). Consumer preference on online purchasing: An attitudinal survey in Bangladesh. *The cost and management*, 43(2), 4-7.

Zwass, V. (1999). Structure and macro-level impacts of electronic commerce: from technological infrastructure to electronic marketplaces. *Emerging Information Technologies*. Thousand Oaks, CA: Sage Publications, 289-315.

Van Esch, P., Arli, D., Castner, J., Talukdar, N., & Northey, G. (2018). Consumer attitudes towards bloggers and paid blog advertisements: what's new. *Marketing Intelligence & Planning*.

Van Doorn, J., Lemon, K. N., Mittal, V., Nass, S., Pick, D., Pirner, P., & Verhoef, P. C. (2010). Customer engagement behavior: Theoretical foundations and research directions. *Journal of service research*, 13(3), 253-266.

Vikash, V. K., & Kumar, V. (2017). A Study on Consumer Perception Toward Online Shopping. *Journal of business and management*, 19(8), 1.

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